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Education in the 21st Century: Responding to Current Issues

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Foreword (Director of Graduate School)

On behalf of State University of Malang, as the Postgraduate Director, I am very pleased to be able to welcome you most cordially at the meeting of the first International Conference on Education. The conference was organized by Graduate School, State University of Malang. Conference organizers have put excellent scientific and social programs that encompass the latest research findings, and provide an opportunity to expand collaboration and friendships among conference participants.

Papers presented at this conference and included in proceeding covers current issues in the field of education, vocation, arts, language, science, and social sciences under the conference theme: Education in the 21st Century: Responding Current Issues. The aims of this conference were to address current issues related to problems and development, to discuss creation and use of knowledge, to present case studies and analysis from different perspective and context, and to stimulate changes for delightful education. The information and empirical evidence presented herein should help to expose and accelerate new possibilities for future research and provide talented young researchers to grow up with new thoughts to help them improve their academic capacity.

Furthermore, I would like to express my gratitude to keynotes speakers, Dr. Antonino Giambrone from York University, Toronto Canada, Dr. Nasser Salaheldein Mansour from University of Exester, United Kingdom, Prof. Dr. Siusana Kwedju from State University of Malang, Dr. Mohd. Rizal Bin Palil from University Kebangsaan Malaysia, and Dr. Christian Hoffman from Goethe Institute, Germany who so generously make this event come together smoothly, and we couldn't have done it without you. The editors deserve special thanks for their excellent endeavors in reviewing and preparing manuscripts for publication. I would like to thank for the presenters for their willingness to share their latest research and ideas. Without their efforts, this conference would not be possible. Keep up productive discussion.

Finally, the richness of knowledge, research findings, and some experiences are presented in this event. We know that our work has not been completed by this conference. We are already planning the second international conference in 2017. We see conferences as one way to build knowledge, to share experiences, to network and to open space to new, different and challenging ideas. Therefore, we will make the conference as an innovative event which is challenging both for the participants and also for the organizers.

We hope you enjoy Malang.

Prof. Dr. I Nyoman Sudana Degeng

Director
Graduate School, Universitas Negeri Malang, Indonesia

Foreword (Conference Chair)

When the graduate school decided to conduct the International Conference on Education in 2016, we started to discuss the theme for accommodating many topics in education. And we came up with the theme *Education in the 21st Century: Responding to Current Issues.* And since that time, we worked to make it happen. Many people involved to support the committee, one of them are our beloved students who worked in daily basis to compile the abstracts and full papers that came from many places and countries and arranged many things needed to make the conference ran smoothly. In this way, I saw the conference became an arena for preparing our students to learn academic conference earlier before they participate in other conferences in other places.

As the annual conference, the year 2016 was the first. Previously, the Graduate School had also conducted international conferences but not annual conferences. This time many presenters came to participate, and most of all we were so glad that many college students and graduate students also attended and presented their paper in this conference. And personally, I would like to say that this academic conference enhanced the academic atmosphere among the participants.

Hopefully, the proceedings that we publish on line will be a reminder for all participants about the messages and academic atmosphere that had been felt and shared during the conference. And for all participants, presenters, and authors of full papers, on behalf of the graduate school, I would like to express our deep gratitude for shaping this conference and proceeding become real and memorable.

My gratitude also extends to the Rector and Director of Graduate Program and all program coordinators of Graduate School, State University Malang for entrusting me to be in charged as a conference chair. Also I would like to thank for all supports from Journal of Humanities Education & Journal of Science Education, both published by Graduate School. Finally, this proceeding was the work of many people, so it is the success of all us.

Malang 2017

Imanuel Hitipeuw
Chair

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Education in the 21st Century: Critical Literacy and Agonistic Conflict as a Response to Current Issues (of Justice)

Antonino Giambrone
York University & Toronto

Given the complexities of education in the 21st century, how might transformative approaches to literacy, a critical literacy embedded in social justice, offer one way of responding to current issues? My interest in this question emerges from my work as a classroom teacher working with diverse students for ten years. In my work with elementary school students (Grades 3 to 8), my approaches to teaching aligned with critical pedagogy (Freire, 1970; Kincheloe, 2007; Andrade and Morell, 2008). That is, I sought to engage students in societal critique through dialogue, and to foster various forms of social action as responses to the issues we explored. I wanted my students to be literate, I believed they were capable of high levels of literacy, and believed that their literacy could be a tool to explore the underlying causes of injustice and take action to redress them. I often aimed at what Lesko and Bloom refer to as "happy-ever-after endings" (1998, p. 390): I hoped students felt good about our learning, their social action, the money and awareness we raised for particular justice initiatives, and about the people the social action aimed to help. In my teaching, I found that providing opportunities for critical talk in response to various texts and opportunities for drama improvisation activities to be powerful ways to engage students in the complexities of social justice issues, particularly those students who seemed to be disengaged during more traditional instructional approaches. Such in and out of role talk was my way of getting students passionate about an issue, and to foster embodied responses to texts that I (as teacher) introduced.

I felt at the time that I experienced success in engaging students using dialogic and dramatic pedagogies associated with critical literacy. I taught in a school where most of the students identified as White and middle to upper-middle class. Students at this school responded with enthusiasm to my conceptions of social justice and my connected literacy practices. For example, I often invited analysis and critique of various media texts, organized community service learning projects, and accompanied students to demonstrations aimed at raising awareness of various issues that students and I associated with local and global injustice. We often discussed the plight of Others1. I began to wonder, however, why my students seemed to be buying in to my pedagogy. I wondered whether or not what we were doing was actually working toward social justice.

When I began teaching at a large elementary school populated by students who had recently immigrated to Canada (many under refugee claims), were racially marginalized, and/or were of lower socio-economic status, this challenged my prior conceptions of critical literacy work embedded in social justice. Many of these students did not seem to respond as positively to what I considered important issues (that I assumed were also important to them). My new context provoked questions about what I was doing, how I was doing it, for whom, and the role played by my gender, racial and class privilege in my attempts at transformative social justice teaching. I began to wonder whether my teaching reflected and valued these students' lived experiences. When I became an equity consultant for my school board, I continued to question the relationships between my (and other teachers') experiences, those of my (and their) students, and the realities of people directly harmed in the issues I addressed. I wondered: How did students with different social identities and life experiences interpret my pedagogy and content? Why did some students seem to care about issues of justice (as I presented them), and

others not? How might conflict be a productive component of critical literacy for social justice, and what diverse ways could students demonstrate their "literacy"?.

In North America, the term 'social justice' has become a catch phrase in education circles, with many schools, school boards, and faculties of education incorporating it into their mission statements and curriculum documents. Indeed, diverse understandings of social justice manifest themselves through various approaches to education. For example, anti-oppressive, multicultural, and democratic citizenship education all, to various extents and with different emphases, claim to incorporate social justice goals. These approaches reject current neoliberal trends in education that are manifested through pervasive standardized testing, scripted curriculum, and continued disparities in the educational achievement of groups marginalized by racism and poverty. Many critical scholars argue that an emphasis on curriculum standards and testing functions to privilege certain perspectives and dominant groups in society (De Lissovoy, 2015; Kumashiro, 2009) and marginalize Others. Such neoliberal trends challenge teachers who wish to work through critical literacies with students to address injustice (Ayers et al, 2009; Kumashiro, 2009; Soloman & Singer, 2011). At the same time, some researchers argue that social justice approaches risk imposing perspectives rather than acknowledging diverse student experiences and intersubjective constructions of knowledge (Sonu, 2009a). Social justice education is a complicated endeavor, defined and practiced for particular goals, and situated within particular contexts.

Critical literacy scholars, such as Allan Luke, Barbara Comer, and Vivian Vazquez, focus directly on literacy practices that manifest in classrooms, and what those literacy practices mean for addressing broad issues of social justice. Critical literacy practice involves teachers in weaving critical questions about various texts into the fabric of everyday life at school. This paper builds on such work focused on critical literacy teaching in elementary school classrooms, and student responses to it – in particular, I frame critical literacy as students' encounters with texts and with each other. Such encounters can include opportunities for students to engage rich talk – dramatic in-role talk included - in relation to multiple text forms. These opportunities are meaning making events-where the analysis of power relations can potentially provoke creative responses.

I present and discuss two vignettes from two urban elementary classroom case studies—a grade 6 class in a demographically mixed area and a grade 8 class in an economically and racially marginalized neighborhood in Southern Ontario, Canada. The teachers in these classrooms regularly implemented dialogic literacy pedagogies on conflictual social justice topics. I also worked with small groups of students from these classrooms, and engaged them in improvised drama session (described below). Teachers' and my own pedagogies included not purely talk or deliberation, but emotive political exchanges, embodying neither fixed identities, fixed social positions, nor straightforward solutions to complex issues. Within this paper, I explore moments of paradox, concurrence and dissonance between two educators' (one classroom teacher and myself as researcher) intentions and various students' responses. These moments illustrate the possible dangers, and transformative potential of eliciting conflictual exchanges in the critical exploration of issues associated with social justice.

Transformative Social Justice Education & Literacy

Applied to curriculum practice, critical pedagogies embody the theory that classroom pedagogy can contribute to social transformation toward justice, by inviting and facilitating student expression and collective interrogation of their lived experiences. Such pedagogy also invites students to recognize and critique societal patterns that cause and maintain oppression, aiming to develop individual and collective agency to overcome such injustice (Duncan-

Andrade & Morrell, 2008). Early critical scholars, inspired by the critical theory of the Frankfurt school, primarily drew upon a social-economic class analysis, challenging the inequitable distribution of resources reinforced by discrimination and ideology promulgated in schooling (Giroux, 2004; Hoy, 2004; Simon, 2002). In addition to the inequitable distribution of resources, transformative approaches to justice education attend to ideological dominance and the misrecognition or denial of difference (e.g. Apple, 1979; Bernstein, 1975; Anyon, 1980). Central to critical pedagogy are Freire's (1970) notions of conscientization and praxis – that students and teachers together develop critical self-consciousness and agency through mutual dialogue that critically examines and informs actions to change oppressive ideologies and structures that constitute barriers to autonomy, justice, and humanized social relations. It is upon such notions that critical literacy scholarship and practice has developed (Comber, 2014, Luke and Freebody, 1999).

The assumptions that such rational positivist critical pedagogies would necessarily yield 'empowerment' for all students in diverse groups, and that individual empowerment would necessarily lead to social change, has been roundly challenged (e.g., Ellsworth, 1989; North, 2006). In response, post-structural theories in education attend to the inequities of mutual respect students bring with them into the classroom, while embracing the emotion, unpredictability and uncertainty inherent in teaching and learning (Britzman, 1998; Ellsworth, 2005). Post-structural scholarship foregrounds the intersubjectivity of relational experiences, in place of rationalist critical pedagogic assumptions that identities are fixed, knowable or predictable. Thus enactment and recognition of diverse identities, in the context of social or pedagogical movement toward social justice, involves the continual formation of selves in encounters with others. Judith Butler (2003b) explains:

> …we are not separate identities in the struggle for recognition, but already involved in a reciprocal exchange which dislocates us from our positions, our subject positions, and allows us to see that community itself requires the recognition that we are all in different ways, striving for recognition. (p. 91)

Thus, recognition of intersubjectivity in the context of inequitable social positioning, rejects essentialized identities and instead aims to co-create new collective possibilities. In order to discern and discuss some tensions and potential synergies between critical and post-structural understandings of such pedagogies, this paper explores what intersubjective, socially transformative approaches to critical literacy education may actually look and sound like in public classrooms. Specifically, I examine one observational vignette of one teachers' critical literacy pedagogy for social justice, and one vignette from an improvised drama session I facilitated with a small group of students. These were encounters in which intersecting, subjectively experienced identities and unequal statuses were performed, negotiated, and (re)created. My aim is to show how a teachers' and researcher's use of dialogic pedagogies (which included drama) within critical literacy contexts, may open spaces for students' creative criticality and intersubjective encounters with social justice issues. Such facilitated encounters can move from literacy as mere reading, writing, and talk involving students' predictable analyses of 'given' social inequalities, toward unleashing risky yet powerful learning opportunities.

Dialogue and Agonistic, Generative Conflict Pedagogies

Critical literacy embedded in transformative justice education goals demand action for social and political change, assumed to both provoke and emerge from contestation, uncertainty, and conflict. Conflict refers not to violence, necessarily, but to any opposing interests, disagreement, or struggle for power and resources. Conflict theorists and critical

theorists (Apple, 2004; Bickmore, 2014a; Davies, 2014; Lederach, 2004) describe the constructive potential of conflict, and dialogue about conflict, to provoke learning, political conscientization, and disruption of existing injustices. Open channels and inclusive processes for participatory dialogue, dissent, negotiation, and collective deliberation are key pedagogical ingredients that may allow conflict to play a constructive role in democracy and in social justice learning (Bickmore, 2008). Dialogue about conflict, therefore, is potentially generative in curriculum (Freire, 1970): it embodies acknowledgment and engagement of divergent perspectives, interests, needs, identities and experiences to create meaning, however uncertain, which may disrupt the assumed dominance of certain perspectives. Improvised dialogic and dramatic encounters associated with critical literacy may create channels for such participation in critique and reinvention of understandings (Davies, 2014; O'Toole et al., 2004), and thereby opportunities for interruption of *status quo* assumptions.

Conflict is an unavoidable part of social and political life, which can be (but too often is not) channeled in productive, educative ways. Antagonistic conflict is raw, aggressive and sometimes violent, associated with competing moral norms of right, wrong, and rejection. "Agonistic conflict," on the other hand, refers to a "vibrant clash of political positions" (Mouffe, 2000, p. 16) in which participants are (constructive) political adversaries in a *shared* social process, rather than (destructive) moral opponents (see also Mouffe, 2005). Agonism, approached from a poststructural perspective, offers an alternative to the deliberative democratic (rationalist critical pedagogy) approaches inspired by Frankfurt School critical theorist Habermas (1996). Habermas assumed deliberative democratic dialogue to involve intentional exchange of divergent perspectives, rationally and civilly shared, defended, and analyzed in order to create consensus on how to address issues. Following poststructuralist education scholars including Todd (2009, 2010), Ellsworth (1997, 2005), Lather (1998), and Ruitenberg (2009) I emphasize intersubjective social relations, passion and emotion, while continuing to affirm the educative potential of conflictual encounters.

For conflict in curriculum to generate expression and exchange of multiple, dissenting perspectives, agonistic (inclusive and democratic) pedagogical structures are required (Bickmore, 2014b; Davies, 2004). However, agonistic approaches do not assume or imply consensual norms or set boundaries of rational discourse. I am not very optimistic about Habermasian rational deliberation toward shared understanding and consensus. As an alternative, I examine in the vignettes below the enactment of passionate talk-based and drama-based critical literacy pedagogies on power-imbalanced justice issues, and their implications for opening up all kinds of fluid relational social conflicts as potentially transformative learning spaces. Critical literacy that includes opportunities for improvised (dramatic) encounters is an example of pedagogies that may enable (re) creation of meaning, thus possibilities for collectively creating new forms of the self within diverse, unpredictable, inequitable social-political contexts.

Intersections: Social Justice Education & Generative Conflict Embedded within Critical Literacy

Critical theories influence my understandings of teachers and students' political conceptions and aims, while post-structural theories inform my understandings of identities and pedagogical interactions as intersubjective, relational, and ungovernable. My analysis below of two vignettes of agonistic conflict and literacy pedagogies and student engagement with those pedagogies - what I call "dramatic encounters" considers the tensions and intersections between critical and post-structural approaches in social justice education.

Diverse students in these classrooms engaged with their teacher's and my pedagogies in various ways, influenced by their previous experiences, outside and in schools, as knowledge (re) creation encounters. School-based learning is grounded in the relationships between teachers and students, and among students, embedded in particular places and times. Individuals may be shaped by, and simultaneously help to shape, such relational learning environments.

Critical literacy, connected with drama and conflict pedagogies, can focus on opportunities for rich, issues based on talk. These opportunities can elicit generative conflict and offers opportunities for diverse, unequally positioned students to construct and communicate their feelings and understandings, and to encounter and respond to those of others. Such opportunities invite exploration of difference between what students seem to know (and feel) and what they may be coming to know, as well as the spaces of difference between themselves and others. Perhaps more than in balanced, rationally oriented dialogue pedagogies, agonistic conflictual encounters allow students' affective and relational identities to emerge, evolve, and come into play in the ways they communicate meanings related to social (in)justice. Every student forms conceptions and responds in varied ways to issues-based texts, based on the fluidity of knowledge creation - influenced by, but not determined by, previous experiences embedded in social structures, inside and beyond the classroom.

Such knowledge creation is deeply tied to critical literacy. According to Allan Luke, critical literacy is not a "method" or technique, but a disposition: one that involves a critical and constructive cynicism toward various forms of text. Building upon work in critical pedagogy, Luke identifies the core question of critical literacy as understanding the relationship between a re-presentation (discourse, written text, image, etc) and reality, and dissecting conflicting sources and forms of information. According to Luke, students need to be taught a "repertoire of strategies" to read the world. Such strategies may move experiences and perspectives. A literate learner also takes on the role of code user. Code users recognize and mobilize the features and structures of various texts, and use visual and non-visual cures to "break the code" of texts. A literate learner is also a text user. That is, they understand the purpose and audience of a text – and that understanding helps determine the way it is constructed. Learners use this knowledge to consume texts, as well as to create them. Finally, a literate learner is a text analyzer. That is, they understand that all texts have bias and represent particular values, beliefs, and perspectives. They also understanding that some values, beliefs and perspectives may have been omitted. Also, texts can be critiqued, and inform how and when students may take action on an issue. In the vignettes I describe and analyze below, students often moved well beyond comprehension of texts, and past analysis to create new "texts" through their encounters. These encounters, as Comber suggests, are examples of critical literacies that "involve people using language to exercise power, to enhance everyday life ... and to question practices of privilege and injustice." (2001, p. 173). Agonistic conflict was a catalyst for using language in such a way so as to create opportunities for meaning making and creativity. Any dialogic encounter with conflict involves uncertainty in the creative emergence of social expression. What is powerful about critical literacy pedagogies that focus on both dramatic and non-dramatic talk is that such uncertainty, creativity, and engaged emotion are taken up as resources, not understood as distractors or problems to be shut down. Thus, curriculum (and inquiry) unfolds with every learning event. I have selected two vignettes illustrating particular ways that one teacher, and myself as researcher, implemented and interpreted particular episodes of critical literacy pedagogies students beyond basic comprehension to using and analyzing texts for a range of purposes.

According to Luke and Freebody (1999), students need experience and practice in what they term "Four Roles of the Literate Learner". A literate learner takes on the role of meaning maker – they use prior knowledge and/or experiences to construct and communicate meaning

when engaging in literacy work. Here, the learner participates in text, forming and communicating their interpretation of texts in relation to their own experiences and perspectives. A literate learner also takes on the role of code user. Code users recognize and mobilize the features and structures of various texts, and use visual and non-visual cures to "break the code" of texts. A literate learner is also a text user. That is, they understand the purpose and audience of a text – and that understanding helps determine the way it is constructed. Learners use this knowledge to consume texts, as well as to create them. Finally, a literate learner is a text analyzer. That is, they understand that all texts have bias and represent particular values, beliefs, and perspectives. They also understanding that some values, beliefs and perspectives may have been omitted. Also, texts can be critiqued, and inform how and when students may take action on an issue.

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METHODS

For the purpose of this paper, I selected two vignettes from a larger research project focused on 3 case studies of grade 4-8 classrooms in which teachers engaged critical social justice education – one from a classroom lessons of one of those teachers, and one improvised drama session facilitated by the researcher - as the best illustrations of the particular challenges and opportunities of critical literacy approaches to risky social justice in these classrooms. Data collected included *semi-structured interviews* with the classroom teacher, *participant observation* in the classroom, and *improvised drama methods* (improvised drama sessions) with a small group of students.

I was participant observer in a series of lessons facilitated by the teacher with her own students. I observed student responses to their teacher's pedagogies and content, and to each other, in each classroom setting. Teachers' perceptions of classroom events, elicited through interviews, were supplemented by direct observations of those events. Participant observations recorded how the teacher demonstrated their approach to social justice education and critical literacy, and how they framed questions of conflict and difference in relation to social justice education. They also recorded how students engaged and responded to their teacher's (a my) pedagogies. All names of teachers, students and schools, below, are pseudonyms.

I also facilitated improvised drama sessions with a small group of students from each class. In each session, I engaged a small group of student-participants (six to nine students from each class who had volunteered to participate) in drama work. Data emerged from the improvised dramatic interactions of each group (Cohen et al., 2007), including preparation, dramatic activity (in-role) in response to various texts, and ensuing dialogue (out-of-role). The purpose of the improvised drama sessions was to facilitate interactions to elicit students' expression of their perceptions and understandings of social justice through dramatic representation (acting), context building discussions, and debriefing discussions. Through these activities, I aimed to provide a forum through which students could explore how their various (negotiated and fluid) social identities were performed dramatically and through related dialogue.

Vignette #1 - Dramatic dialogue (Maureen): What should be done about homelessness?

In a "dramatic deliberation" activity in her diverse grade 6 classroom at Whitfield Public School, the teacher, Maureen, asked students to take on the roles of various individuals who would have divergent perspectives about poverty and homelessness. Students articulated, in role, mostly agonistic political perspectives (linked to the identities of the character roles they played), not merely antagonistic moral stances: students imagined, enacted and challenged others' views while considering their own (Mouffe, 2000).

Maureen purposely set the stage for *dramatic* conflict. She implemented this "dramatic deliberation" activity to encourage students to imagine and enact divergent perspectives, and then to attempt to reach consensus, on the issue of homelessness and what to do about it. This involved particular rules of engagement: students prepared "position statements" to express (in role) the opinions of "stakeholders" – characters from *Trupp* (a storybook about an encounter between Trupp, an imaginary creature who left its mountain home, and Bernice, a homeless person in the big city) as well as non fictional characters from the school's own community (mayor, residents, business owners, etc.) – on how to address the problem of poverty-based homelessness. Students, in role, were to respond to the question: "What should be done about homelessness in this city?" Maureen created groups of three to four students and assigned each group a (stakeholder) character. Members of each group prepared together a written position statement: that is, they shared the responsibility for in-role writing from the perspective of the stakeholder character they were assigned.

When the dramatic deliberation itself began, one student from each stakeholder character group sat in a circle and, in turn, performed their position statements in role. After all the position statements had been performed, student small group members could replace the person representing their character in the circle at any point when they wished to add to the discussion, respond to a question, or ask a question of others. Maureen played the role of reporter – that is, as critical questioner and Devil's advocate (similar to the role of the Joker in Boal's Forum Theatre approach (2002)). Thus, she challenged the thinking expressed by the students in their roles.

Such deliberation, even when used as a critical literacy and drama approach, normally aims for reaching agreement (in contrast to debate, whose goal is to have one winner among two or more sometimes polarized perspectives). This drama activity reflected Maureen's valuing of agonistic conflict –exploration in which students could imagine others' perspectives in relation to developing understanding of their own views.

In setting the stage for improvised dramatic conflict here, Maureen elicited and expected divergent viewpoints to emerge. However, she did not know ahead of time how those interactions or viewpoints would unfold. Such an opportunity to improvise dramatically

transcended rationality and created space for students to express passionate emotion in the classroom, and to express a wide range of viewpoints unlikely to be aired in a regular classroom discussion (out of role, speaking for themselves). Thus this pedagogical strategy offers an alternative to balanced, rational deliberative dialogue, making 'speakable' in the classroom some unsettling viewpoints that likely existed in students' lived experience but that they usually would not choose to espouse as their own. The dramatic deliberation structure thereby offered a springboard for emotions to be unleashed, unpredictably.

The following excerpt highlights tensions among students' expressed perceptions of homelessness, and possible ways to address it:

> SADIE [as city councilor, to Lady on Bench, who had yelled at homeless character in *Trupp*]: Do you avoid homeless people when they're around?
> SAL [as Lady on Bench]: I don't really respond to them.
> SADIE: Don't you find that hard?
> ESTHER [takes over as Lady on Bench]: Before, it was hard, but now there are shelters and things, they can use those.
> TAMARA [as shelter director]: Why do you feel the need to ignore them?
> CARLA [as businessman]: Well, they don't do anything for us - they're not that important, so why pay attention to them?
> LISA [back in role as restaurant owner]: Well, saying that you don't pay attention or ignore them, do you do that for everything else in your life - like global warming, are you going to ignore that?
> TEACHER MAUREEN [in role as reporter/moderator]: Well, how about the fact that you tried to hide the homeless in the back of the restaurant and don't let them come to the front? Isn't that that same thing?
> LISA: But we give them free food!!??
> [Recess bell rings, but most students do not leave their chairs]
> [Amidst many voices, the following emerge]
> NADIL [as Bernice, speaking to Elia, playing the businessman]: If you were homeless, would you want people to think the same way about you as you do about us?
> [Everyone goes silent.]
> ELIA [as businessman]: I don't know the answer to that.
> CARLA [taking over as businessman, asks Nadil (as Bernice)]: Have you ever thought about going to a shelter?
> NADIL: I prefer to stay on the street.
> TEACHER MAUREEN [as reporter/moderator]: Why do you prefer to stay on the street?
> NADIL: The shelter is sometimes stinky, and I'm free to do what I want on the street. (Whitfield Observation, February 12).

In the above dramatic deliberation, these grade 6 students took on roles (sometimes voicing opinions contrary to their own) and engaged in conflict through questioning, voicing opposing viewpoints, and engaging in critical (dramatic) dialogue. Yet, drama's emphasis on playing (conflicting) roles and communicating emotion distinguishes it from other forms of discussion. As Winston argues, "What matters more than what is said is what the words *do* to the characters to whom they are spoken or who speak them. What counts is their effect on the way they see their situation and how this vision defines or will redefine their subsequent actions" (2005, emphasis added, p. 113). What did these words do? I assume that, to some degree, the student participants' actual feelings and perspectives came "through" the ways they improvised their roles' perspectives- although, as mentioned above, at the same time their drama expanded the range of viewpoints voiced in the room—and that this process of taking a

role, hearing themselves and others, could have had an "effect on the way they [saw]" the problems of, and responses to, poverty/ homelessness in their own society.

Thus, the dramatic discussion seemed to provoke self-reflection upon students' own attitudes and actions toward poor and homeless people they actually encountered in their own city. The drama, as a means of critical literacy, built to a point where the complexity of the issue came to light. When Nadil (as Bernice) framed a question to Elia (as businessman) about what it might feel like to be disrespected, this apparently caused the whole class to pause and reflect. Here, these students' interpretation of homelessness as a social justice issue emphasized a concern about individual attitudes toward poor/homeless people, less than broader political and social-structural issues and proposals for poverty reduction. Some students (among those whose roles allowed this) expressed recognition of homeless people as deserving equal respect as members of society. This approach did not address the root structural causes of poverty-based homelessness nor the politics of collective response to those problems, but rather focused on individual biases and interactions with individual homeless people.

The teacher, Maureen, as the reporter/moderator, encouraged with her questions the affirmative notions of fairness and respectful inclusion. For instance, she invited students to consider their own well-intentioned action (providing food, but only outside and behind the restaurant) as they criticized another character's general attitude toward homeless people. Toward the end of the activity, Maureen used her role again to engage in problem-posing (conflict): building on Carla's question (as businessman) about shelters and Nadil's response (as homeless person Bernice), to raise social-structural questions about whether shelters were a solution to the causes of homelessness. Thus Maureen's provocations enabled Nadil (as Bernice) to bring to light a complex, challenging perspective that had not yet been brought up in this class's exploration of homelessness: that affirmative short term remedies (non-confrontational, ameliorative approaches such as shelters) do not provide complete answers to the issue.

In this vignette from Maureen's classroom, improvised dramatic in-role dialogue agonistically addressed divergent perspectives-replacing competitive (antagonistic) debate, and simultaneously not teaching or assuming universal conceptions of right and wrong. Students articulated, in role, political differences embedded in intersubjective social relations, not just moral stances. That is, students used political referents that "[sought to] organize human coexistence in conditions that are always potentially conflictual because they are affected by the dimension of 'the political'" (Mouffe, 2000, p. 15). They carried out their dramatic dialogue within the context of the organized ensemble of practices, discourses, and institutions (that is, a social context) associated with poverty and homelessness in their particular urban Canadian setting. Students dramatically expressed, responded to, and later analyzed opposing political positions in relation to this social context. Thus, although the dramatic deliberation expanded the range of viewpoints expressed (and responded to) compared to what might have arisen in an ordinary classroom discussion, the conflict in this instance remained agonistic. This was a deeply engaged yet non-competitive opportunity for students to imagine, enact, and constructively challenge others' views, while noticing and considering their own – all characteristics of a critical literacy approach embedded in social justice.

This dramatic deliberation vignette thus illustrates an alternate way of deliberating - unpredictable, complex, and passionate – that did not attempt to balance the discussion, to limit talk to what dominant discourses consider rational, or to force consensus. The initial structure of the activity was based on particular norms of communication outlined by teacher Maureen: to develop and then share contrasting position statements, one at a time, and then students, one at a time and remaining in role, asking questions of each other. Later, the deliberation drama unfolded in a less orderly, more unpredictable way: in role, students raised questions about

poverty, homelessness, and existing power relations. The students expressed with passion and listened intently to divergent yet agonistic perspectives. Their high level of engagement was evidenced by most students' unwillingness to stop the drama activity when the recess bell rang.

A critical literacy pedagogy that blends drama and conflict invites interplay between dramatic perspective and individual perspective: "the dialogical relationship between the material subject (and [their] histories) and the imagined one" (Gallagher, 2007, p. 85). Students participated and made decisions, within the drama, about their characters' views toward a real issue (homelessness), while also considering the impact of the issue on their own real lives and the world. Debriefing reflections, in particular, facilitated a balance between the "role and the real" (Booth, 2005, p. 105). While balancing the role and the real may allow students to make complex meaning, tensions also emerged among the issue of homelessness, students' previously held views, and what happened in the drama. Teacher Maureen, in a post-activity interview, highlighted the conflict that some students had experienced when they were assigned to play a role that reflected a perspective very different from their own convictions. Within such struggles, students negotiated their own conceptions and perspectives. Students' perspectives on homelessness may not have shifted substantially over the course of this one activity, but it was an opportunity to provoke students' thinking and further dialogue. The tensions as well as the dialogue within the dramatic encounter invited students to question their own understandings, and potentially to modify their existing understandings, from both inside and outside the drama experience. Beyond "rational" deliberation, the dramatic encounters described above involved emotive, intersubjective political exchanges without offering any straightforward solution to a complex issue. Thus, this episode, as a blend of critical literacy, social justice, drama and conflict, opened up rather than closed or narrowed, democratic space and democratic engagement on a human level.

Talking Back Responding to Personal Misrecognition

In session with the drama group from Andre's class at Valley Public School, Grade 8 students refashioned my attempt to have them analyze stereotypes of others, and insisted that they instead talk back to stereotypes they themselves had faced. Valley Public School was located in the oldest public housing community in Canada, and was characterized by a high poverty rate. Almost all of Andre's students were racialized, and experienced poverty. I devised an improvised drama session that built on these students' expressed concerns about identity and stereotypes, by presenting the the short film *Silent Beats* created by Jon M. Chu as a pre-text for further dramatic work. The film explores two characters' (one White, one East Asian) perceptions of and assumptions about a Black boy as he enters a convenience store. I hoped to engage students in a critical reading of the text (the film) in realtion to their own experiences – to support meaning making and as a provocation for text analysis (Luke and Freebody, 1999). I also hoped to provoke a creative response among students. Students provided their analysis and connections to the film in a discussion after watching. They spoke about and named the various stereotypes the characters in the film had of each other. One student, Silvia connected the film to the murder of a young Black man, Trayvon Martin, in the U.S. in February of 2012:

> It's kinda like the situation of that boy who got shot cus somebody thought he had a gun on him, but he only had [ice tea] and [candy]. So, I guess, they were thinking on the video that Black kids steal and are bad. (Valley Public School, Improvised Drama Session, November 1, 2012)

Hamsa added a stereotype that he connected with:

> It's kinda of like how most people automatically assume how, Muslims when they're in the airport and everything, when they're trying to catch a plane or something, when they go through security and all that, they automatically assume their terrorists or something. So it's like as soon as the Black guy walked in, both the Asian man and the [White] lady automatically thought that he had a criminal record and that he slept on the street. (Valley Public School, Improvised Drama Session, November 1, 2012)

Hamsa, Silvia, and others' responses showed their awareness of stereotypes, and I thought students could use the film, as well as their discussion of the film, as a starting point from which to dramatize how they, in role, would talk back to (challenge) those stereotypes. This was my way of provoking an agonistic challenge or conflict with societal beliefs and assumptions. I asked students to individually select one of the three characters - the young Black man, an older White woman, and an East Asian male store clerk - and to think about the assumptions of the character they had selected.

I asked students to improvise a "talk back" (hooks, 1989) to the stereotypes projected toward the character they had selected. Most students were reluctant to volunteer a performance. After much encouragement, some students volunteered to take part. After a few attempts, it was clear from their body language and reluctance that some of the students did not wish to engage with the exercise. As one student finished a short performance of talking back as the store clerk, Amina and Shila shouted out to me as facilitator almost impatiently, "Can we do it about us?!".

Students' drama and talk about the film reflected their own struggles with the content, and it became clear that the students in this group at Valley Public School wanted to rewrite stereotypes using improvised performance drawn from their own experiences. It was like they felt they did not need to learn about stereotypes by hearing about (or addressing dramatically) stereotypes some people have of others. They were uncomfortable portraying others talking back to stereotypes: they had their own bodily knowledge, based on their own experiences, that they wished to perform. This was process of recognition - whereby the students saw themselves reflected in the film, but still wished to remain separate (Butler, 2003a). The videorecorded performances of these improvisations focus on each student's face and upper body, sitting in a chair, with students facing and talking directly into the camera. Julian excitedly indicated that he wanted to perform first. He sat, initially with a smile on his face, and proceeded to stop smiling after a few seconds and perform the following in an animated, indignant way:

> Do you think I eat burritos and tacos everyday watching novellas in Spanish? Do you think that all Spanish people get pregnant at the age of 16? Do you think we cut our baby's stomachs and put drugs in them and take them to the airport as real babies? No we don't. Do you think we're all in gangs, and we sell drugs and all these things? [Pause] Do you think that just because I speak Spanish, that I'm from Mexico? Mexicans are not the only people who speak Spanish in this world. There's Columbia, El Salvador….There's Cuba, Puerto Rico, and .... [out of breath and smiling]. (Valley Public School, Improvised Drama Session, November 1, 2012).

Hamsa, a Bengali Muslim male student, was encouraged by his peers to go next in the group. He was reluctant, and began and stopped two times before he improvised the following:

> You think I'm a curry eater? I don't eat curry all day with my family. Everybody thinks I'm Indian. I'm not Indian alright. There are Bengali, there are Sri Lankan and Pakistani. You know I don't sit at home and eat rice and curry and all these things that you people say I eat. I play soccer with my friends. I play with my friends everyday. I'm not a poor kid on the street asking for money. C'mon guys! (Valley Public School, Improvised Drama Session, November 1, 2012).

Hamsa's performance took the form of pleading with those who made assumptions about him. Shila, a Bengali Muslim female, volunteered to perform immediately after Hamsa did. She also started and stopped a few times before performing what is excerpted below. She performed with what I interpreted as an indignant smile throughout, using her body to emphasize her words by rising from the chair at times, and using varied intonation as she spoke:

> Do you think just because I'm Brown I eat curry all day? Or I'm from India? No. Do you think my parents beat me just because I'm Brown? No. [rises slightly from her chair, then sits] Do you think my dad beats my mom, and doesn't let her do anything or go anywhere? [rises again from her chair as she speaks and sits again] No. I go to school, my mom goes to work. We do what we need to do. [Pauses. Laughs]
>
> Do you think that I'm a terrorist just becuase I'm Muslim? No. Do you think I wear this same scarf everyday? No. Do you think....uh...ya. [Laughter.]
>
> Do you think all I play is cricket [getting up from chair moving toward camera, and swinging a pointed finger at it], No! [shouted]. (Valley Public School, Improvised Drama Session, November 1, 2012).

All three of these students' improvised talking back to unjust (stereotyped) assumptions and representations that, in their experience they had found repeated by peers, media, and others. They sought affirmation that they really were not what those others assumed. Their improvisations reflected the complexity of identity - students strategically named typical representations in order to challenge practices and views that impacted negatively their lived experiences. In some cases, they did so by differentiating "between different kinds of difference" (Yuval-Davis, 2006, p. 194). Shila, in particular, highlighted the intersectionality of identity – placing importance on how her identities were constructed, interrelated, and how they affected each other - as she addressed not only cultural artifacts such as food (curry) and sport (cricket), but also race and gender relations in families. She also talked about Islamophobia, specifically her experience as a Muslim young woman wearing a hijab. Her performance, sparked by her and her peers' desire to enact their own talk backs during an improvised drama session showed how drama as a ways to engage critical literacy, became a point of departure for them to communicate their identity-linked conceptions and responses to injustice. When they saw an opportunity, students recreated how they understood others viewed them. As hooks (2004) maintains:

> We are rooted in language, wedded, have our being in words. Language is also a place of struggle. The oppressed struggle in language to recover ourselves - to rewrite, to reconcile, to renew. Our words are not without meaning. They are action – a resistance" (p. 28).

These students' talk backs reflected places of struggle and revealed their conceptions of how they could enact their agency for social justice in relation to intersecting notions of identity. Misrecognition of their identities could not be atoned by simply celebrating their ultures, but by challenging dominant representations of themselves in a way that drew attention to injustice, and that reflected some of their pride and anger. When Shila was finished her performance, Amina, an Ethiopian Muslim female, who chose not to perform that day, could be heard singing off camera, as Shila walked away from the performance chair:

> AMINA [singing]: I'm a Muslim girl and I'm proud and I'm free.
>
> SHILA: I'm a Brown princess.
>
> AMINA: I'm a Muslim girl and I'm proud and I'm free.
>
> (Valley Public School, Improvised Drama Session, November 1, 2012)

Thus, the challenge to misrecognition, or the devaluing of one's identity (Fraser, 2003), in Shila's performance sparked explicit identity affirmation for and from Amina, which Shila

shared. The words Amina sang challenge any assumption that she, as a Muslim girl, was not "proud" and "free".

At the end of the improvised drama session with these six students, the rest of the students began to enter the classroom. As I was thanking everyone for another great session, Julian asked me to turn the camera on to him one more time. I did not know what he wished to do, but I began to video record. He improvised a talk back that focused on another of his identities – being a member of the Valleydale community:

> Do you think that just because I live in Valleydale that my mom's a prostitute and my dad's a drug dealer? Do you think that I don't go to school? And that I'm in gangs, and I sleep with cockroaches and rats? No. I have a proper mattress and… [Julian laughs while falling off his chair and other students' laughter can be heard off camera]. (Valley Public School, Improvised Drama Session, November 1, 2012).

These "talk backs" communicated students' struggles for recognition, and particularly this final talk back from Julian communicated how issues of recognition are intertwined with issues of redistribution. These young people demanded the opportunity for selfrepresentation, in order to challenge the stereotypical representations they believed that others held of them based on race, ethnicity, religion, gender *and* class. Most of the students in this improvised drama session group, while they refused to take on the roles of characters in the film, *Silent Beats* in the way I had planned (as researcher facilitator), insisted that they play a role in "making themselves":

> We do not represent ready-made selves to one another: we do not encounter the other and then simply present or re-present what is already true about us, what is already constituted in us, what is already known about us. In the encounter with the other, we are perhaps always somewhat strange to ourselves, for the other addresses us in ways that make assumptions about who we are, what we stand for, what the limits of our thinking and commitments might be. But if we undergo the experience of dialogue, then we enter the conversation as one kind of person but emerge as another kind. (Butler 2003b, p. 82).

As a kind of summary of all the talkbacks, Julian challenged misrecognition ofnot only his ethno-racial affiliations, but also his identification with another diverse political collective with shared identity-the Valleydale community, with its shared socio-economic characterizations. These young people's talkbacks simultaneously affirmed and dislocated them from their subject positions. Social justice for these students was about their response to the material and symbolic conditions that made up their everyday experiences. Julian, with his performance, made clear the fact that they were part of a community that was frequently marginalized by forces attempting to revitalize or redevelop it. Many friends and family members of the students had been asked to leave their homes recently, and watched as their homes were demolished, not sure where they might be going, nor when or if they would be coming back to the Valleydale community. Moreover, the students were studying in a temporary school building that was in disrepair. It was within these conditions that the young people at Valley Public School created their talkbacks.

Students' talk-backs were an opportunity for them to engage in agonistic dialogue, particularly with those (not present) who might make assumptions about who they are. These Valley Public School students took risks and spoke about their personal experiences of discrimination, and supported each other in their collective struggles for recognition. They not only related their personal stories through the talkbacks, but also initiated an interruption of stereotypical representations of themselves. Many young people (especially those marginalized by dominant society's response to their community, race, gender, language, ethnicity and other identities) feel misunderstood by people outside their school and community (Gallagher, 2014). These talk backs had not been not part of my plan. The students took it upon themselves to

challenge the stereotypes they experienced with their improvised words. In many ways, they performed *and* (re-) created their identities simultaneously in those moments - through their performances, they made meaning in ways that I could not have predicted.

DISCUSSION

The pedagogies described in both of the vignettes above were designed to provide opportunities for students to engage in passionate exchange, including expressing disagreement, guided by purposeful, critical questioning on a justice issue. How do (and 'should') teachers scaffold (inform, support and focus) dialogue that engages conflict and responds to issues of justice? In the first vignette, Maureen scaffolded students' expression and consideration of a wide range of viewpoints through a dramatic deliberation exercise, which elicited quite a vibrant agonistic exchange. Dramatic encounters in the context of critical literacy invite (or are surprised by) varied forms of student agency and engagement. The teachers participating in this research believed strongly in fostering student agency, enhancing their ability to use their voices to address injustices. These dialogues were opportunities to publically communicate, as well as to challenge, one's own and others' views about social justice issues relevant to people in the room. The airing of divergent perspectives in role, as in the dramatic deliberation based on the novel *Trupp* (first vignette), seemed to shield student participants from having their own identity positions directly targeted (or having to attach a viewpoint to their identity), while still eliciting conflictual exchange of views. In students' debriefing of the dramatic exercise, they affirmed that value of that conflictual expression in provoking and informing their reflection and learning regarding their own perspectives.

Critical literacy approaches that mobilize drama and conflict dialogue pedagogies can create opportunities for agonistic (constructively critical) political exchanges. In both vignettes described above, the teacher and I tried to create and sustain conditions in which encounters would be critical and respectful (agonistic). The pedagogies described invited students' affective engagement, in part through drama and also through inviting expression of conflicting views about unresolved social justice issues. Clearly, dramatic encounters can be opportunities for meaning-making that challenges oppression: teachers and students can play roles that disrupt the oppression that may emerge.

These vignettes reveal the potential of talk and drama for critical literacy approaches embedded in social justice. Dialogic and divergent out-of-role talk can support the intersubjective and affective exploration of critical questions of social justice—that is, it can engage students' hearts and minds in the learning space. Interweaving drama with dialogue mitigated some of the danger associated with social justice education, by creating spaces for both play and thoughtful exploration of understandings. The young students in Maureen's and Andre's classrooms had opportunities to engage agonistically, affectively, and critically in deconstructing the issues introduced by their very participation in the dramatic and dialogic encounters. What counted as literacy, in these contexts, was broadly defined. As Ladson-Billings (2016) argues, such a characteristic of literacy involves creating opportunities for students to ask their own question and search for their own answers, while engaging in a collective struggle against the status quo. The vignettes analysed in this paper show how drama pedagogy and conflict engagement in critical literacy as an approach to social justice education can go beyond "polish[ing] problems with the shine of attention" (Cahill, 2011, p. 30), to deconstruct these problems and risk disrupting initial conceptions, in order to elicit and provoke invention of responses to deepen understandings in unforeseen ways.

Responses to different texts with Andre's students and in Maureen's classroom were unpredictable learning opportunities. They provoked additional questions that required time to

pursue, in order for students to have the opportunity to rethink and/or challenge oppression. Critical literacy pedagogies embedded in social justice, and students' responses to such pedagogies, illustrate both the risk and the educative potential of conflict in teaching – engagement with unresolvable political conflict while including and acknowledging passion and emotion, to inform action for social change.

Framing critical literacy as a dramatic encounter seems to provide a shape and scaffolding for collective meaning-making—mitigating the risks (to speakers and less dominant peers) of unfettered self expression in the discussion of difficult conflictual questions about continuing injustice. In a moment of complex and real time communication - communication forms such as Twitter, Snapchapt, WhatsApp, Instagram and others forms of social media have create opportunities for even more dramatic encounters. Access to information and multiple perspectives – from more dominant to invariably marginalized – create an even deeper need for young people to engage their literacy in critical ways. New forms of communication are also opportunities for students to *express* their literacy in various ways. We might, as educators be tempted decry the loss of traditional forms of "literacy", but Gloria Ladson-Billings (2016) reminds us that we might also support students with the multiple forms of literacy created almost daily – and celebrate how youth invent and create language in ways that can potentially disrupt an often unjust status quo.

REFERENCES

Anyon, J. 1980. Social class and the hidden curriculum of work. *Journal of Education, 162*(1), 67-92.

Aoki, T. 2012. Teaching as in-dwelling between two curriculum worlds. In Susan Gibson (Ed.), *Canadian Curriculum Studies,* (pp. 38-44). Vancouver: Pacific Educational Press.

Apple, M. 1979. 2004. *Ideology and curriculum*. New York: Routledge.

Banks, J.A. 2004. Multicultural education: Historical development, dimensions, and practice. In J. A. Banks and C. A. M Banks (Eds.), *Handbook on Research in Multicultural Education* (pp. 3-29). San Francisco: Jossey-Bass. Bernstein, B. (1975). *Class, codes, and control, Volume 3* (2nd ed.). London: Routledge.

Bickmore, K. 2008. Social studies for social justice: Learning/ navigating power and conflict. In L. Levstik & C. Tyson (Eds.), *Handbook of Research in Social Studies Education* (pp. 155-157). New York: Routledge.

Bickmore, K. 2014a. Citizenship education in Canada: "Democratic" engagement with differences, conflicts and equity issues? *Citizenship, Teaching and Learning, 9*(3), 257-278.

Bickmore, K. 2014b. Peace-building dialogue pedagogies in Canadian classrooms. *Curriculum Inquiry*, 44(4), 553-582.

Britzman, D.P. 1998. *Lost subjects, contested objects: Toward a psychoanalytic inquiry of learning*. Albany: State University of New York Press.

Butler, J. 2003a. The question of social transformation. In E. Beck-Gernsheim, J. Butler, & Lidia Puigvert (Eds.), *Women and Social Transformation* (pp. 1-28). New York: Peter Lang.

Butler, J. 2003b. Transformative encounters. In E. Beck-Gernsheim, J. Butler, & Lidia Puigvert (Eds.), *Women and Social Transformation* (pp. 82-101). New York: Peter Lang.

Cahill, H. 2011. Drama for deconstruction. *Youth Theatre Journal*, 25, 16-31.

Cannon, J. 1998. *Trupp: A fuzzhead tale. San Anselmo,* CA: Sandpiper Press.

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education*. (6th ed.). London: RoutledgeFalmer.

Comber, B. 2001. *Critical literacy: Power and pleasure with language in the early years*. Australian Journal of Language and Literacy, 24(3), pp.168–181.

Comber, B. 2014. Critical literacy and social justice. Journal of Adolescent and Adult Literacy. (58) 5, 362-367.

Davies, L. 2004. *Education and Conflict*. London: Routledge Falmer

Davies, L. 2014. Interrupting extremism by creating educative turbulence. *Curriculum Inquiry*, 44(4), 450-468.

De Lissovoy, N. 2008. *Power, crisis, and education for liberation: Rethinking critical pedagogy*. New York: Palgrave Macmillan

Duncan-Andrade, J.M.R. & Morrell, E. 2008. *The art of critical pedagogy: Possibilities for moving from theory to practice in urban schools*. New York, NY: Peter Lang.

Ellsworth, E. 1997. *Teaching positions: Difference, pedagogy, and the power of address*. New York: Teachers College Press.

Ellsworth, E. 2005. *Places of learning: Media, architecture, pedagogy*. New York: Taylor and Francis.

Fontana, A. and Frey, J. 2000. The interview: From structured questions to negotiated text. In N. Denzin and Y. Lincoln (Eds.), *Handbook of Qualitative* Research (second edition) (pp. 645-662). California, UK., India: Sage Publications, Inc.

Fraser, N. 2003. Social justice in the age of identity politics: Redistribution, recognition, and participation. In N. Fraser & A. Honneth (Eds.), *Redistribution or recognition?: A political-philosophical exchange* (pp. 7-109). London: Verso.

Freire, P. 1970. Pedagogy of the oppressed. New York: Continuum.

Gallagher, K. 2007. *The theatre of urban: Youth and schooling in dangerous times*. Toronto: University of Toronto Press.

Gallagher, K. 2014. *Why theatre matters: Urban youth, engagement, and a Pedagogy of the real.* Toronto, Buffalo, London: University of Toronto Press.

Giambrone, A. 2016. *Dramatic encounters: Drama pedagogy and conflict in social justice teachers.* PhD Thesis, Ontario Institute for Studies in Education-University of Toronto.

Giroux, H. 2004. Critical pedagogy and the postmodern/modern divide: Towards a pedagogy of democratization. *Teacher education quarterly, 31*(1), 31-47.

Habermas, J. 1996. *Moral consciousness and communicative action*. Cambridge: MIT Press.

Howard, L.A. 2004. Speaking theatre/doing pedagogy: Re-visiting theatre of the oppressed. *Communication Education*, *53*(3), 217–33.

Hoy, D. 2004. *Critical resistance: From poststructuralism to post-critique*. Cambridge, MA: MIT Press.

Huebner, D. 1976. The moribund field: Its wake and our work. *Curriculum Inquiry*, *6*(2), 153-167.

Kincheloe, J L. & Steinberg, S.R. 1997. *Changing multiculturalism*. Berkshire: Open University Press.

Kincheloe, J.L. 2007. Critical pedagogy in the twenty-first century: Evolution for survival. In P. McLaren & J. L. Kincheloe (Eds.), *Critical pedagogy: Where are we now?* (pp. 9-42). New York: Peter Lang.

Kumashiro, K. 2000. Toward a theory of anti-oppressive education. *Review of Educational Research, 70*(1), 25-53.

Ladson-Billings, G. 2016. "#Literate Lives Matter": Black reading, writing, speaking, and listening in the 21st century. Literacy Research: Theory, Method, and Practice. 65 (141-151).

Lather, P. 1998. Critical pedagogy and its complicities: A praxis of stuck places. *Educational Theory, 48* (4), 487-497.

Luke. A, & Freebody, P.1999. Further notes on the four resources model. Reading Online. Available on-line at http://www.readingonline.org/research/lukefreebody.html

McDermott, M., Daspit, T., & Dodd, K. 2004. Using theater as pedagogy: Implications of dramatic approaches for democratic dialogue. In R. Gaztambide- Fernandez & J.T. Sears (Eds.), *Curriculum work as public moral enterprise* (pp. 96-112). New York: Rowman & Littlefield.

Mouffe, C. 2000. *The democratic paradox*. London: Verso.

Mouffe, C. 2005. *On the political*. London: Routledge.

Simon, R. 1992. *Teaching Against the Grain*. Toronto: OISE Press.

Todd, S. 2009. Can there be pluralism without conflict? *Philosophy of Education*. 51- 59.

Todd, S. 2012. Going to the heart of the matter. In G. J. J. Biesta (Ed.), *Making sense of education* (pp. 79-84). Dordrecht: Springer Media.

Vasquez, V.M. 2004. *Negotiating critical literacies with young children*. Mahway, N.J.: Lawrence Erlbaum.

Winston, J. 1996. Emotion, reason, and moral engagement in drama. *Research in drama education: The journal of applied theatre and performance, 1*(2), 189-200.

Winston, J. 2005. Between the aesthetic and the ethical: Analysing the tension at the heart of theatre in education. *Journal of moral education*, *34*, 309-323.

Young, 2010. Challenges to Conceptualizing and Actualizing Culturally Relevant Pedagogy: How Viable Is the Theory in Classroom Practice? *Journal of Teacher Education*, 61(3), 248-260.

The Altered Geopolitical Situation, Changed the Geostrategic Adjustment of Germany's Cultural and Educational Foreign Policy

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The interconnectedness of the world's civilizations as a consequent of the growing digitalization and globalization since the early 21st century requires new foreign policy strategies. On the one hand, the crisis and conflicts in foreign countries and world regions increasingly affect national politics, but on the other hand, the globalization opens economic and demographic opportunities, like never before. The German foreign policy tries to take advantage of those opportunities and designed some initiatives of which I want to introduce a compelling one: "PASCH-Schools: Partners for the future".

Keywords:

Germany's educational work abroad: The battle against international terrorism

After the German reunification, German foreign policy in the 1990's remained focused on Europe. The national budget was also strained by the ensuing costs of integrating the Eastern European states into (Western-) European institutions. However, several global incidents made German foreign policy look closely to more remote world regions.

No later than after the shock caused by the 9/11 attack in New York, Germany's politicians realized: *"Suddenly it became clear to security politicians, that longstanding conflicts, anarchy and state failure, economic hopelessness and social impoverishment, as well as persistent experience of violence have consequences for the public safety in the western world, even when it happened in peripheral world regions."* (Mair/Werenfels 2009: 70).

In the battle against international terrorism and to prevent future terror attacks, the German government assigns cultural relations and educational policy an important role. The strategy consists of building not just strong economic but also cultural ties with all countries in the world. In 2011 the German secretary of state already remarked: *"One of the most effective methods in fighting international terrorism is the dialog of cultures. If we build a better understanding among societies, if foreign civilizations, foreign people, foreign regions, foreign ethnic groups have the impression that they have friends around the world […] then they will reduce their terroristic ambitions considerably. In this context I would like to point out the importance of foreign cultural policies."* (Vollmer 2001).

Safeguarding Germany's mineral supply

Germany is integrated into the world economy and dependent on its growth to a greater extent than many other countries. The export of goods and services is one of the main drives of German economy. Germany as a mineral-poor country faces long-term dependence on a secure supply of metals, minerals and energy feedstock. The energy revolution and new technologies will also fuel demand for scarce raw materials. Germany is currently supplied by over 160 countries including many developing countries.

Nowadays, new actors such as China, India and Brazil play an increasingly important role as engines of demand for minerals and energy resources on the international stage. Especially China's growing economy is thirsty for sustainable supplies of mineral resources.

Despite being the number one mining nation in the world, China is facing a rapid depletion of its local mineral resources. In order to overcome shortages of essential mineral commodities, as well as to secure long-term sstainable supplies for its ambitious economic development strategy, a number of domestic state-owned and private companies pursue mining deals throughout the world. As the following data chart (Figure 1) illustrates: China's share in the worldwide import of raw material has risen from 10% in 2000 to more or less 50% depending on the specific good.

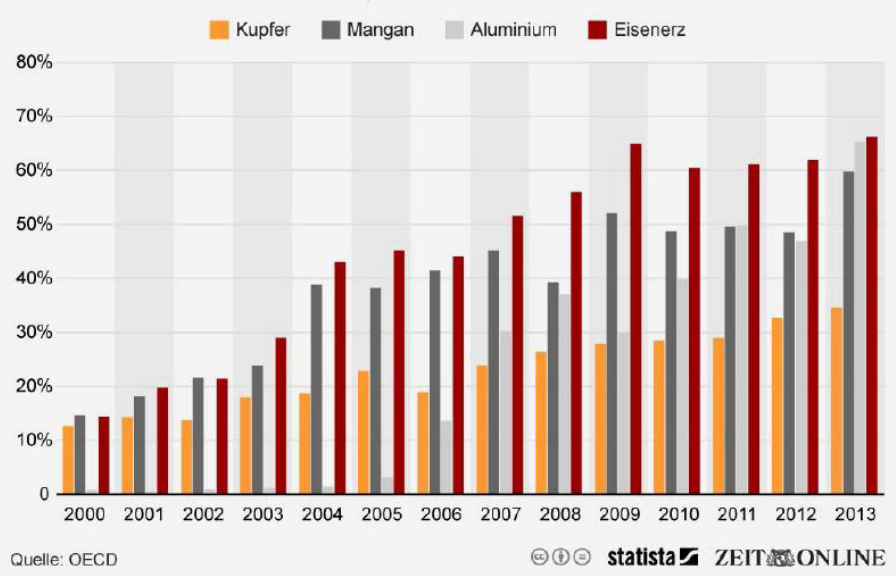

Figure 1: Chinese share in worldwide import of raw material (OECD 2015)

Keeping in mind that Chinese mineral deals are not always made public, the adjusted number of Chinese imports could be even more impressive.

Due to this worldwide competition, Germany has to make great efforts to guarantee its mineral supply. It is therefore the task of Germany's foreign policy to both promote and protect German economic interests in the world by maintaining robust diplomatic relations to as many countries as possible.

Internationalization of Germany's universities and impending lack of qualified personnel

During the last decade, Germany's politicians realized that it is in their best interest to make the university landscape internationally more attractive. An exporting economy needs welleducated people living abroad who have cultural ties with Germany. Global economic relationships can be sustained and expanded only if their partners are able to easily understand the university and scientific system and the degrees they award. Experience shows that, once they have returned home, foreigners who have studied, graduated and obtained a doctorate in Germany are the best ambassadors for the German culture and the German economy. As a top destination country for international students, Germany is currently ranking number five after the US, the UK, France and Australia (2014 UNESCO). German universities and the government have high expectations in attracting more international students to come to study in Germany in the near future.

Furthermore, the universities will expect less national students due to the demographic fact of Germany's shrinking population. If all German universities with their diversity and quantity want to survive the next decades, they will need to recruit students from overseas to fill the demographic gap.

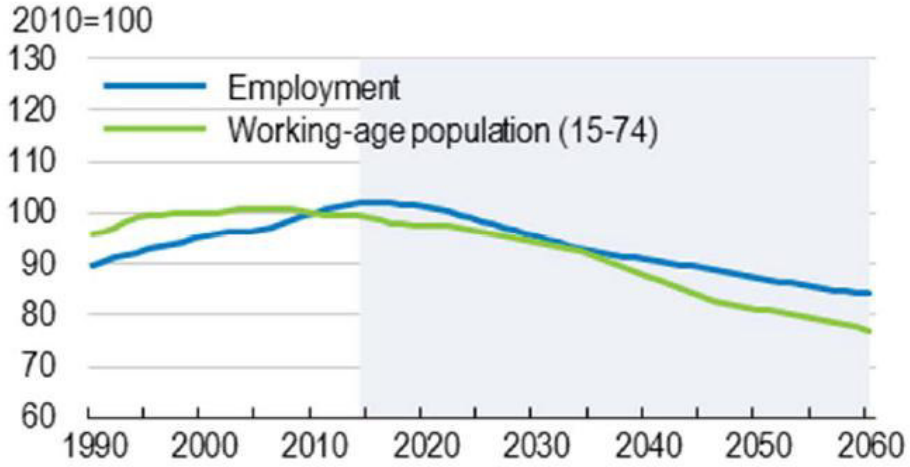

Figure 2: German working population development (OECD 2016)

In light of these demographic changes taking place, many German companies are currently facing a shortage of qualified personnel. A wide range of sectors are affected, including health care and the STEM fields of science, technology, engineering and mathematics; this situation is set to worsen. Germany is increasingly feeling the need to recruit skilled professionals from abroad to ensure continued growth and prosperity in the long term.

Germany's new political constellation does not pass up the geopolitical opportunities

Within the last decade German politicians started diverse initiatives and programs with the aim to attract more skilled foreign people to come to Germany:

1. Legal regulations in terms of residency rights and employment permits were eased for (potential) skilled workers from outside the EU for both academic and non-academic qualifications.
2. New regulations for the recognition of foreign qualifications were introduced, facilitating the employment of foreign labor in Germany.
3. There are various programs for foreign students which help to provide intensive support for students and young researchers from abroad and enhance the welcoming culture – „Willkommenskultur" in German universities.
4. The initiative "PASCH-Schools: Partners for the future" (short PASCH) tried to consolidate German as a foreign language in high schools worldwide and tried to identify and encourage many young talents to come to Germany.

On the latter educational initiative I will focus my ensuing research interest.

The initiative "PASCH-Schools: Partners for the future" (PASCH)

In 2008 Germany's foreign minister Frank Walter Steinmeier introduced his ministry's latest idea to the public in Jakarta, at the German international school: the PASCH- initiative. In 2014 he returned to Jakarta and resumed:

"During my last visit, about more than six years ago, an idea evolved here in Indonesia, which has, so to speak, traveled around the globe. At the time, […] we thought, that we needed a different model, a model that could complement the traditional German school model, and this is […] the PASCH partner-schools.
People in Germany occasionally complain [...] that, in this world, not enough people are learning German and that not enough young people come to Germany, to study.
But we are able to observe and witness, that over the past years, this has not to be the case, this can be changed. […] As I entered the assembly, I have heard being said by many, […] that their greatest wish was not only to learn the language, but to use thheir acquired language skills to go to Germany for their studies […].
We kindly invite you to think about, where you want to study, at which vocational school or at which university, to then consider, and think about, whether Germany might not be an interesting location […] for you to study at." (Goethe-Institut 2014)

But what is the initiative about, that our foreign minister and future president extols it with so much enthusiasm?

PASCH was designed by the German Federal Foreign Office as an international learning community that should not only fostering German language learning, but also try to make a lasting contribution to cultural exchange and improved mutual understanding. PASCH is coordinated by the Federal Foreign Office and implemented in cooperation with the Central Agency for Schools Abroad (ZfA), the Goethe-Institut (GI), the German Academic Exchange Service (DAAD) and the Educational Exchange Service of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany.

In 2017, the network of PASCH schools will reach around 1800 schools in 120 countries, worldwide. These include 140 German schools abroad, 1100 schools under the auspices of the Central Agency for Schools Abroad, as well as 590 schools overseen by the Goethe-Institut, where German lessons have been set up or expanded. Of these 590 schools there are 120 focusing on STEM (Science, Technology, Engineering and Math) subjects being taught at university and 40 vocational schools.

The network of German schools abroad and schools offering the German Language Certificate should be strengthened. Furthermore, cooperation with schools should be stepped up with a view to anchoring German as a foreign language more firmly within the national education systems. In addition, scholarships for pursuing a course of study in Germany and opportunities for school exchanges and twinning programs are made available.

During the period of eight years (2008 – 2016) the German parliament spent about 400 million euro to run the project; in 2016 alone about 46.5 million euro.

The main goals of the initiative are described as:

1. To win over partners for the German economy, politics, science, education and culture.
2. To consolidate German as a foreign language.
3. To identify young talents and encourage them to come to Germany in order to strengthen Germany as an economic and scientific place.
4. To contribute to the social and economic development of the member countries.

Role and activities of the Goethe-Institut

The Goethe-Institut which is the cultural institute of the Federal Republic of Germany, has a global reach. It promotes knowledge of the German language abroad and fosters international cultural cooperation. Aside from being the international market leader for German

courses itself, the Goethe-Institut's educational cooperation program (Bildungskooperation Deutsch) supports teachers, schools, universities and institutions holding German courses.

The Goethe-Institut supports the more than 550 PASCH schools to include or expand German teaching on their curricula. It offers teachers further training in pedagogical methods and language courses, and equips schools with modern multimedia-friendly teaching, learning and cultural studies materials. Within the framework of the initiative, the Goethe-Institut has additionally sent teaching experts out to assist the partner schools around the world. Youth programs are run in Germany for pupils from participating schools, allowing them to improve their language proficiency, develop their intercultural skills and experience Germany and its culture at first hand.

PASCH in Indonesia

In order to give a more concrete illustration of the activities organized by the PASCH initiative, I will give some examples from Indonesia, the country with the third biggest number of PASCH schools in Asia after China (128 PASCH schools) and India (55 PASCH schools).

Figure 3: The 29 PASCH schools in Indonesia ©Goethe-Institut Indonesien

In Indonesia, the German language is in the comfortable position of being the first of the second foreign languages taught at senior highschools (SMA). Aproximatly 150.000 Indonesian pupils learn German and 10 universities in Indonesia offer courses for future teachers of the German language. This is quite impressive given the fact that Indonesia lies on the other side of the world and the historical ties between these two countries never have been extraordinarily close. Besides that the German language is not just relativly wide spread in Indonesia – German products and German policy (mostly) have a high reputation. A good starting point to launch the PASCH initiative in Indonesia.

PASCH activities in Indonesia

There are 29 PASCH-schools in Indonesia. Pupils learn German from class 10-12, around 4 hours a week. PASCH-schools are provided with modern equipment, including libraries and laboratories. PASCH activities in Indonesia are aimed at the three main target groups: pupils, teachers and principals.

In many partner schools extra German courses are provided to boost German knowledge. As a consequence, the numbers and the results of German Language Certificates conducted by the Goethe-Institut Indonesia are constantly increasing.

Table 1: Passes Exams from PASCH pupils in 2010 and 2016

	Passed A1 Exams	Passed A2 Exams	Passed B1 Exams	Passed B2 Exams
2010	509	153	-	-
2016	440	472	64	4

Language learning courses during the holidays are offered in Germany, other ASEAN countries and various Indonesian destinations. Special cultural events such as music tours, theatre workshops, exhibitions, etc. should further motivate the pupils to learn German and to encourage their enthusiasm for the German culture.

Figure 4: Youth camp in Bali 1
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Figure 5: Youth camp in Bali 2
©Goethe-Institut

Furthermore, the quality of the German lessons is ensured, as the 80 German teachers employed by the partner schools are offered training events in the fields of language, methodology, pedagogy, and regional studies in Germany and locally. In 2016 teacher training reaches 139 Indonesian German teachers. (Multiple count in case of multiple participation).

In addition, the headmasters are involved in the expansion of the PASCH initiative, through their participation in an annual report meeting and regional ASEAN meetings that focus on increasing the schools' activities aimed at promoting the German language. The PASCH initiative also provides headmasters with workshops held by experts and regularly invites them to visit Germany, in order to get them updated on the possibilities for their pupils to study in Germany.

Figure 6: PASCH school directors in Germany 1
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Figure 7: PASCH school directors in Germany 2
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Effects of the PASCH initiative

It is for sure very challenging, if not even impossible, to describe the effects of a single educational program, but I want to show three figures:

1. In 2015 15.4 million people worldwide were counted who learn German as a foreign language. After decades of decline the number has been rising since 2010.
2. Since 2013 Germany is the second top migration destination of choice after the US.
3. With a total of 321,569 in 2015, the number of international students in Germany increased by nearly 32% over the past decade.

Of course these developments are not solely due to the PASCH initiative. The persisting positive image of Germany abroad and its stable economic situation during the last five years are as important factors for people to learn German and to come to study and live in Germany, as the general basic conditions in the partner countries, such as demographic and economic developments, educational reforms, etc. However, the survey mentioned:
"The support of German as a foreign language abroad is a key task of the foreign cultural and educational policy. It makes an essential contribution to future subjects such as the internationalization of German university and securing the supply of skilled workers. The support of German as a foreign language is crucial for the rise of the number of foreign students and foreign skilled worker in Germany." (Auswärtiges Amt 2015, S. 5).

The demand for learning the German language is internationally growing. At the same time it can be observed, that the interest in learning German is regional on different levels. The biggest number of German learners is still in Europe, and the interest in learning German as a foreign language has been increasing lately. In some countries in which the German language is traditionally well anchored, such as the countries of the community of independent states, the interest in German has been consistent, despite a slight decrease in the number of learners of German as a foreign language. In Asia, on the other hand, the demand for the German language has risen remarkably. Especially for the education-oriented middle class in South-East Asia, in countries such as Indonesia, Thailand, Vietnam, and the Philippines, Germany is traditionally an important destination for higher education.

Immigration to Germany

The German language has lately experienced a comeback thanks to the impression that German-speaking countries have flourishing economies and are anchors of stability in Europe. That makes Germany more attractive to some extent, particularly in developing countries, because German language skills promise an advantage for the economy and people's careers. On the list of languages with the most native speakers, German ranks number 10. There are approximately 104 million native German speakers. However, more important for an international ranking is the gross national product (GNP) that is yielded by German speakers. And in that regard, the German language is in fourth place. English comes in first, followed by Chinese and Spanish. It can thus be argued that the economic potential associated with native German speakers holds a lot of weight.
"The world knows that the EU is economically dependent on Germany and that Austria and Switzerland, which are also German-speaking, are also flourishing economically. It's impressive for people that Germany can compete with the large countries as a world export leader. That gives the impression that learning German will give you access to countries that flourish economically and offer good opportunities for business or for a career and perhaps even to immigrate. That motivates people to learn German." (Deutsche-Welle 2015).

Number of foreign students in Germany

The numbers of foreign students for 2015 put Germany comfortably on pace toward its longer-term goal to host 350,000 foreign students by 2020. They also secure its position among the top six study destinations worldwide, placing second only after the US, and the UK and competing with France, Australia, China, and Canada. In 2014 Germany attracted a lot of attention globally when it announced an initiative to waive off tuition fees for international students. That has made many students, especially in high-cost countries including the US, start evaluating Germany as a serious option for international education. Based on the past three years' momentum, and the smart initiatives being rolled out to attract students, it is probable that Germany will overtake the UK and become Europe's leader in higher education within the next five years.

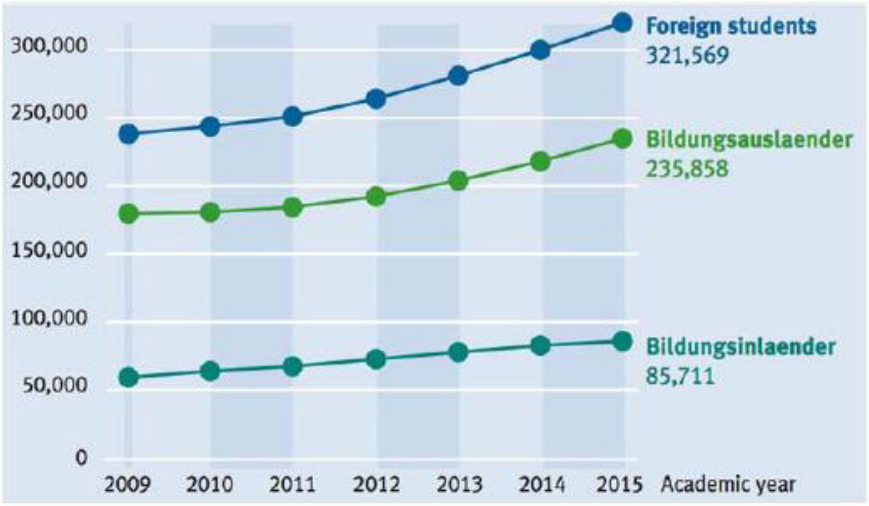

Figure 8: Foreign student enrolment in Germany, 2009-2015 (Statistisches Bundesamt 2016)
Bildungsinländer: (students of other nationalities who completed secondary school in Germany).
Bildungsausländer: (those that completed their secondary studies outside Germany).

Conclusion

The German foreign ministry has high expectations for the PASCH program resolving future German demographic and economic challenges. From the perspective of the participants, including pupils, teachers, and school directors, the program will definitely provide them with many personal and professional benefits. From the German perspective, the program will surly increase Germany's popularity and reputation. The number of foreign students in Germany has been increasing significantly just like the number of people who learn the German language. The globalization moves foreign countries for young people to be more accessible. In the last years, Germany has been one of the leading countries to provide a place for higher education for international young talents, because the country has established itself as a top destination due to its well-respected stable economy, science and research. However, whether this trend will remain sustainable is questionable and depends on many other factors, including inner German affairs and worldwide developments.

References

Auswärtiges, A. 2015. Deutsch als Fremdsprache weltweit. Datenerhebung 2015, p. 5 (translated by author).

Deutsche-Welle. 2015. Why the world should learn German - and why Germany should care. Interview of Prof. Ulrich Ammon. Retrieved from: URL http://www.dw.com/en/whythe-world-should-learn-german-and-why-germany-should-care/a-18236069, 27.01.2017.

Goethe-Institut. (2014, November 11). Kunjungan Menteri Luar Negeri Jerman Dr. Frank Walter Steinmeier. Retrieved from URL https://www.youtube.com/watch?v=9q9F4LMbAHs, 27.01.2017 (translated by Sarah Hendarta).

Mair, Stefan/Werenfels, Isabelle. 2009. Auf der Suche nach einer neuen Rolle. In: Informationen zur politischen Bildung 2/2009, 70 f. (translated by author).

OECD. 2015. Retrieved from: de.statista.com [Publisher], URL https://infographic.statista.com/normal/infografik_3382_Anteil_Chinas_an_den_weltweiten_ Metall_Importen_n.html, 27.01.2017.

OECD. 2016. Economic Surveys: Germany 2016, doi: 10.1787/eco_surveys-deu-2016-en, 27.01.2017.

Statistisches Bundesamt (2016). Retrieved from: http://monitor.icef.com/2016/08/germanysinternational- enrolment-grew-2015/, 27.01.2017.

UNESCO. 2014. Retrieved from: URL https://www.theguardian.com/higher-educationnetwork/ blog/2014/jul/17/top-20-countries-international-students, 27.01.2017.

Vollmer, L. 2001. Speech of the Minister of State in the Foreign Office Dr. Ludger Volmer (Bündnis 90/Die Grünen) on the subject “Sicherheit 21 - Was zur Bekämpfung des internationalen Terrorismus jetzt zu tun ist” (18.10.2001), in: documentArchiv.de [Publisher], URL: http://www.documentArchiv.de/brd/2001/rede_volmer_1018.html, 27.01.2017 (translated by author).

Learning and Teaching in the Knowledge Society: Challenges and Potentials

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The knowledge society is a changing society in which information expands rapidly and circulates continuously around the globe; money and capital flow in a restless and relentless search for new investment opportunities; organizations continually restructure themselves; government policies undergo volatile shifts as electorates become more and more capricious; and multicultural migration keeps reconstituting the communities in which we live. There are many aspects of the era of the knowledge society. Also, there are many factors and agents that can facilitate or hinder the transition to the knowledge society. This paper will just focus on teachers' concerns and roles on the knowledge society. The paper will start by introducing the students' concerns as end-users of the educational services. Then I will move on to introduce what knowledge society means and what are the roles and responsibility in this era and how can we support teachers in the knowledge society to develop and be helped to develop capacities for taking risks, dealing with change, and undertaking inquiries when new demands and novel problems repeatedly confront them.

Keywords: learning, teaching, knowledge, challenges, potentials

I would like to start this paper by introducing the silent and powerful voices; the students' voices. I think we can learn a lot from these voices. Also many sensible and authentic changes and decisions can be made to survive in the knowledge Society by taking these voices seriously.

Students Voices …No Need My Comments

In 2001, *The Guardian newspapers* launched a competition called The School I'd Like, in which young people were asked to imagine their ideal school. Categories used in the competition were primary (ages 4-11), lower secondary (ages 11-16) and upper secondary (ages 16-18). The guardian relieved multiple entries and from over 1500 schools and hundreds of individuals. What presented here is only a fraction of the archive but offers a detailed 'snapshot' of how school was regarded by children and young people across the UK in the early months of 2001. This was presented in a book by Catherine Burke and Ian Grosvenor (2003): *the school I'd like: Children and young people's reflections on an education for the 21st Century*. In this competition Children reported on different aspects. I will just present some voices about school buildings, knowledge and curriculum, learning, teacher and tools

School Buildings

> I want lots of colures (age 4)
>
> The school buildings should be huge cylinder like buildings and a subject on each floor; we think is a good idea because then teachers can't tell you to stand in the corner (age 10).

An 'own pace room' where you can go at you own pace in English and maths and work from any text book you want. And then you can go to a marking machine where you put your work in one end and it comes out marked the other end (age 11)!
The roof of the whole building is a glass dome with parts which can be opened on hotter days. In the centre there is a fountain which can flow over a closed dome (age 12).
There would be also be many comfortable and informal meeting places for creative interaction in small groups on key issues, not just on the syllabus but also wider issues occurring locally and elsewhere (age 17).
The basic aspects of the buildings we are taught in do not promote learning, but instead, enhance feelings of negativity (age 15)
My idea school would be a very futuristic one. It would be made of glass and bright blue steel tubing to hold the glass in place. The ground floor of the school would be for classrooms, the outside would be painted gold and it would have many oval windows…the school would be very eco-friendly. On the roof there would be solar panels and wind turbines in the grounds of the school. This would enable the school to generate its own electricity. Also there would be a recycling are for all the school's paper and bottles.
The toilets feel like you're underwater with a sound track and it is done by using the same way as a picture on the cinema, so the walls have water and sea animals. Also it is the shape of a bubble.

Knowledge and Curriculum

I believe that the curriculum should contain the need for experiences, such as going to the beach the countryside, a table-tennis match, to a farm an aquarium.
I think more time should be devoted to art, design and technology. I think we should go on more trips to local, national and international museums and art galleries.
In my dream school, standards will be set for every child separately.
I do not like the way children are expected to do this by seven and that by eleven. Plus, if you have not achieved all those things by sixteen then you are told you won't get a decent job ever. This is very harmful to all children.
My dream school should be a school which would let me explore the world and tell me human knowledge. To achieve this idea school would be located in three different places: underwater, underground and in space.
The school I 'ld like have no rigid curriculum, only guidelines for students and teachers and all students to choose their own subjects.

Learning

Some parents or grandparents did not have the facilities or technology when they were at school which is why I think that one a week they should be able to come into school and learn about some of the new teaching methods in the curriculum with their children.
An academic city of learning. This new school will be almost like a university as we will have the freedom of choice and opinion, not treated as mobs for such a large school, they however will be trained accordingly and learn to treat us as individuals.
School is a very important part in a child's life. Not only does it help them learn but it helps them to grow up, learn how to work together and also to socialise.

The place must be unafraid of kids starting out of windows and must not insist on 100% attention or even 100% attendance…..it is a terrible pressure for kids to have pay attention and think what they are told to think.

Teacher

Teachers should not mind if we have an opinion…
Rightly or wrongly, the power relationships between pupils and teachers are unequal in most schools, but I think that teachers frequently abuse their authority.
I think we should have a 'teach the teacher' day. We can teach the teachers how it feels to be a kind and see how hard and fast we have to do our work and so we can set the standard.
The teachers can tell us what they think of us, but in a Dream school we could tell the teachers what we think of them. So we can could write them reports and give them marks. Wouldn't it be nice if we could choose which teachers we wanted for every subject?
Every teacher should be able to decorate and bring in their personalities into their classrooms. That way they might feel relaxed and at ease and if teachers are relaxed then so are the pupils.
What I would change about the teachers is the way they are paid. I would make it that the teachers would only get paid if the pupils thought they were teaching properly.

Tools

I feel there is nothing like a teacher's enthusiasm for his subject to make learning a pleasure, and I am sure a computer cannot show enthusiasm.
Computers in classroom.
Interactive whiteboard in every classroom.
The furniture of school-room should be graceful in form and good inn quality and finish

From these voices, we can conclude that unless the children are behind our initiatives, they cannot succeed. A good education cannot to be imposed, but has to be understood and embraced by those it is intended to benefit. Children are extraordinary keen to share the burden of responsibility for examining the future of education in the knowledge society. Perhaps this should be the main lesson adults learn from 'The School I'd Like'. Not to adopt any specific proposals, building modifications, or even attempt a new ethos or new curriculum or even the up-to-date technologies- although all of these would be nice and effective in some contexts. But the first lesson must be in listening, and respecting what we hear. Children are so obviously more than ready to take up the challenge of redesigning their education in the knowledge society. ***Are we ready to meet the challenge of listening to them?*** *(Burke & Grosvenor, 2003).*

To respond to these students' concerns, Albert Einstein had said 'I never teach my pupils. I only attempt to provide the conditions in which they can learn'. Therefore, there is need for learners to take charge of their learning through abilities for self-learning, critical thinking, collaborating, communicating, information processing, problem solving and the like leading to cognition as well as metacognition. Teacher education colleges can foster learner autonomy by putting into practice the concept of 'engaged learning' (Bose, 2010).

The Idea of the Knowledge Society

The previous concerns by UK students reflect the challenges that education in UK faces in the knowledge Society. These challenges can apply to other students in different contexts in the world. The claim that education needs to respond to these challenges of the emerging global knowledge society is now the common sense position in almost every government educational policy review (Jacoby, 2007). While we may not be surprised that relatively economically advanced countries like the UK, Germany and the EU shape education policies to respond to the knowledge society (European Council, 2000) Jacoby finds the same references to the need to compete in the knowledge society shaping education policy in less developed countries such as Bangladesh and Namibia. The interesting implication Jacoby draws from this is that the idea of the knowledge society now serves as a vision of a global future that is leading to a convergence of education policies. Whether grounded on an empirical analysis of changes in the economy or motivated by a shared vision of a global networked future, the idea that we are moving into a knowledge society now raises challenges for educational theories and educational practice and shapes educational policy across the world. Mansour and Wegerif (2010) argue that education needs to respond to the accelerating rate of technological and social change associated with the knowledge Society and globalisation. In particular a need is seen for more adaptability or 'learning to learn' throughout the lifespan.

A number of organizations have developed frameworks that attempt to identify the individual skills and sets of skills students need to succeed and to help educators integrate 21st century skills into existing education programs. The enGauge 21st Century Skills framework, for instance, developed by the North Central Regional Educational Laboratory, includes "digital-age literacy", "inventive thinking," "effective communication," and "high productivity" as the most important skill sets. Education consultant and advisor Tony Wagner has conducted interviews with business leaders and observed classrooms and discovered a disconnect between what potential employers are looking for (critical thinking skills, creativity, and effective communication) and what our schools are providing (passive learning environments and lesson plans that only focus on test preparation and reward memorization). Based on his work, Tony Wagner has outlined seven skills that will be necessary for the students of today to develop in order to survive the workforce challenges of tomorrow.

1. Critical Thinking and Problem-Solving
2. Collaboration across Networks and Leading by Influence
3. Agility and Adaptability
4. Initiative and Entrepreneurialism
5. Effective Oral and Written Communication
6. Accessing and Analyzing Information
7. Curiosity and Imagination

While this is just one list it is reasonably representative of the range of lists articulating the skills needed to survive and thrive in the knowledge Society. With their focus on creative and critical thinking as well as on learning to learn, these lists are clearly a development in the same tradition as the teaching thinking skills movement, offering a new version of the sort of thinking that we should value and ought to teach more of because there isn't enough of it about. However they do not entirely fit the cognitive assumptions that lie behind many more traditional approaches to teaching thinking. It is the argument of this paper that the idea of the knowledge Society and the kinds of skills, habits and dispositions associated with it, requires that we need to re-conceptualise what we mean by education and particularly education for higher order thinking skills (Mansour and Wegerif, 2010).

From the previous discussion about the idea of the knowledge society, we can summarise as was argued by Hargreaves (2003: 17) that the knowledge society has three dimensions. First, it comprises an expanded scientific, technical, and educational sphere. Second, it involves complex ways of processing and circulating knowledge and information in a service-based economy. Third, it entails basic changes in how corporate organisations function so they enhance continuous innovation in products and services by creating systems, teams and cultures that maximize the opportunities for manual, spontaneous learning. Across these dimensions the teacher has a key role to play for the education in the knowledge society.

Teacher Professional Development for the Knowledge Society

The term professional development is getting increasingly replaced by the broader and more significant term lifelong learning (Fenwick, 2001) as knowledge society is a learning society with knowledge and competences evolving continuously. Teachers being potentially the most important asset in the notion of a learning society need to be lifelong learners (Day, 1999).Teacher professional development is a prominent feature on the educational landscapes of developed and developing countries equally. Experience around the world in developing, industrialized, and information-based countries has shown that professional development is the key determining factor for improved student performance. Effective professional development experiences are designed to help teachers build a new understanding of teaching and learning (Lee, 2001). Teacher development can be conceptualised as a mechanism for driving change in educational systems and/or as a strategy for empowering individuals and teams to improve their professional knowledge and pedagogy (Day & Sachs, 2004).

The continual deepening of knowledge and skills is an integral part of the development of any professional working in any profession. One important means of achieving competitive advantage is the creation of conditions for the rapid acquisition of new knowledge and skills. Teaching takes place in a world dominated by change, uncertainty and increasing complexity. Government publications all over the world, in Europe, North America and the Antipodes, stress the technological, economic and social challenges which schools, and therefore teachers, face (Day, 1999). From the professional development view, Borko and Putnam (1995) argue that current educational reform recommends a shift toward a student-centred paradigm. This entails a substantial departure in teachers' approaches, from a traditional transmission of knowledge to a cognitive and social construction of knowledge. David Hargreaves (1994) identified the shifts in culture, values and practices of teachers in knowledge society.

> At its core, the new professionalism involves a movement away from teacher's traditional professional authority and autonomy towards new forms of relationships with colleagues, with students and with parents. These relationships are becoming closer as well as more intense and collaborative, involving more explicit negotiation of roles and responsibilities (p. 424).

A study in Saudi Arabia funded by the Excellence Research Center of science and Mathematics Education ECSME about science teachers' needs in Saudi Arabia by Mansour and Al-Shamrani (2011) suggests that there is a need for a different approach in professional development programmes to give teachers (a) the opportunity not only to learn the new knowledge, but also (b) to explore new pedagogies associated with teaching approaches to prepare students for the 21st century. The findings indicate that teachers expressed a need for training on teaching approaches that can help them prepare their students for the 21st century (e.g., teaching science through field trips and scientific visits, developing creative thinking among students, and teaching science for gifted students). Castells supports this trend in arguing that this shift in the social economy 'calls into question the entire education system

developed during the industrial era' and demands that we develop a new pedagogy (Castells, 2001, p.278).

Critically, Hargreaves identifies a 'post-technocratic' model of professional education in which professional development is approached from four interconnected premises:

1. Teachers are understood to have life-long professional needs and these will be met only if treated, as in the case of any learner.
2. For continuity and progression to be realized, teachers' development needs must be assessed on a regular basis.
3. Schools devise a plan for development.
4. Professional needs arising from personal sources (e.g., appraisal) have to be reconciled with school needs from institutional sources (e.g., a development plan).

Hargreaves's model appears to move beyond Hoyle's (1980) earlier notions that teachers operate on restricted or extended professionality by implicitly suggesting that teachers do not have a choice (Cited in Day, 1999, p. 9). The tradition of 'in-service days' as the norm in professional development has been criticized as inadequate and inappropriate in the context of current educational reform efforts, and as being out of step with current research about teacher learning (Darling-Hammond & McLaughlin, 1995). In this respect and based on a another study in Saudi Arabia funded by the ECSME to explore science teachers' views of the current and the future of their professional development, Mansour and Al-Shamrani (2012) argue that in order to develop an effective teacher education programme especially for preparing teachers for the knowledge society, we must identify not only the presence of change, but also teachers' views about the change. From this perspective, teachers' views and self-evaluations are practical indicators, providing a good estimation of teachers' experiences and establishing the framework for future teacher professional development. This study recommends that 'any new CPD framework [should] positively encourage, empower and enable teachers to develop and improve their professional practice'.

Darling-Hammond and McLaughlin (1995) argue that helping teachers to rethink their practice necessitates professional development which involves teachers in both teaching and learning and that this creates a new vision of what, when and how teachers should learn. In this sense, learning is considered as"the process in which persons make the decision of engaging in getting to know" (Alrø, Skovsmose & Valero, 2007, p. 2). In this context, Kelchtermans (2004) defines continuing professional development (CPD) as ''a learning process resulting from meaningful interaction with the context (both in time and space) and eventually leading to changes in teachers' professional practice (actions) and in their thinking about that practice'' (220). This interaction eventually leads to changes in a teacher's professional practice as well as in their thinking about that practice.

If teachers could decide for themselves what, why and when to participate in programmes, they will feel ownership and be convinced on taking part in the CPD and implement its ideas in the classroom. The perception in mind it that of teachers' positiveness through a 'bottom-up' approach that seems to lack in a number of countries. Neglecting teachers in this manner resulted in attending repetitive activities that had little value to their needs (Mansour and Al-Shamrani, 2011). Similar cases were reported in England with warnings on the results that could happen because of teachers' silenced voices in the process of PD (Wegerif & Mansour, 2010). Warnings were mainly signalled in regard to teachers' ignorance, misinterpretation or even distortion to the intentions of educational policy (Towndrow, Tan, Yung, & Cohen, 2008).

Therefore, in preparing teachers for the knowledge Society, there seems a rational in Murray's (2010) suggestion that the concept of 'self-empowerment' is a valid concept in a discussion about effective CPD and teacher learning, as empowerment is where teachers decide and initiate actions in an attempt to taking the first steps that acknowledges their responsibility,

autonomy and self-directed learning. Teachers within any empowering activity are able to increase their knowledge, infuse this knowledge into their classroom materials, and become more self-confident and involved in collaborative work (Gilbert , 1994). This could happen when teachers are given the freedom to make choices and take responsibility for their profession (Howe & Stubbs, 1996).

Teaching in the Knowledge Society:

Hargreaves (2003: 24) argues:

> Teaching for today's knowledge society is technically more complex and wide-ranging than teaching has ever been. It draws on a base of research and experience about effective teaching that is always changing and expanding. Today's teachers therefore need to be committed to and continually engaged in pursuing, upgrading, self-monitoring and reviewing their own professional learning. This includes, but is not restricted to, participating in face-to-face and virtual professional learning networks, adopting continuous professional development portfolios where teachers accumulate and review their own professional learning, consulting and critically applying the evidence of educational research so their practice is always informed by it, undertaking action research and inquiry of their own, and connecting professional learning with levels of reward in teacher pay.

Teaching is no longer an individual sport, but rather a team sport! The team here is not a team of just teachers it is a team of teachers, students, technicians, head teachers, parents. The team in this context can be called community of practice. According to Wenger (1998), communities of practice are groups of people who share a passion for something they do and who interact regularly to learn how to do it better. Communities of practice define themselves along three dimensions: what they are about, how they function, and what capabilities they produce. Successful schools have teams of communities working together on complex teaching and learning strategies for all students in their schools. For example, teachers must not only be focused on the students in his/her classroom, but all the students in the school.

Stigler and Hiebert (1999) describe the Japanese system of change, which features school-based professional development focused on "lesson study." Groups of teachers meet over extended periods of time to develop, try out, and assess lessons. First the group defines a problem of practice and plans an approach to this problem in the context of a particular lesson, usually with a specific hypothesis in mind. Then the group members teach the lesson to their students and meet to discuss how it worked and how it might be improved. Once group members have developed an effective research lesson, they share it with other teachers. Because the entire country teaches the same curriculum, many teachers can benefit from this intensive study of a single lesson. Japan's new culture of teaching has developed through teacher-led research, collaboration, dialogue, and collegial exchange in the very schools where teachers work.

How Teachers can Survive in the Knowledge Society

In the new teacher education and training initiative for the 21st century, teachers would be required to know and understand the characteristics of the 21st century learner including aspects of pedagogical and content knowledge of subjects that they would teach the learners. These would include the incorporation of languages, cultures and traditions in community contexts as well as technology in the broadest sense (Darling-Hammond, 2006).

In the knowledge Society, teachers do not get recipes or solutions to the problems they face every day. For a simple reason these problems are changeable and are not countable. What these teachers need is know how to research these problems. Our roles as educators is not to introduce answers which they will be outdated in no time but teachers needs to develop skills to access information and strategies to work on is information.

Claxton et al. (2011) argue schools that work to build learning power have realised that effective professional development has to be more than a one day course and 'away you go'. They argue that teachers' habits as learners have to become part of the picture; how they go about changing is a relevant to their discussions as what changes they are aiming to bring about. So the school has to think of professional development in a split-screen way: ***'what'*** has to be learned and '***how'*** it might be learned which I call it a ***framework for learning***. Also, schools that work to empower their teachers through the professional development should consider the enactment of the outcome of this learning practice which is another frame needs a support by all parties at school involved on the professional development I call it **a frame for practice and enactment.** So, professional development should mean and aim to offer teachers opportunities to share experiments, successes, failures, doubts, and ideas, and then go back to the classroom and have another go (Mansour and Al-Shamrani, 2012).

Mansour and Al-Shamrani (2012) show the significance of engaging critically with teachers' voices and views of their CPD programme. Providing a mechanism for individuals to reflect and assess their professional needs giving them a voice that empowers them and paves a roadmap for development is one of the issues that need to be taken into consideration to enable implementing the concept of lifelong learning. Therefore, for this new vision of professional development for teachers in the knowledge Society and working towards professional development as a mechanism for empowering teachers by learning, Claxton et al. (2011) suggests these types of professional development opportunities have been built into the PD programmes of many schools:

Learning Reviews

It is a considered evaluation which conducted by teacher of how students are as learners and what changes could be made. It is a process that involves teachers and students together to understand the problems and work together a team to suggest solutions. So, when doing so, we are not just empowering teachers, we are equally empowering students and develop skills for the knowledge Society.

Teacher Learning Communities

The essence is a small group of teachers who meet together regularly to deepen their understanding of an approach, trying out new things and reflecting on and sharing their experiments with each other.

Coaching Partnerships

Teachers at school develop teams to reflect on their practices. They explore the challenges that they meet, share the trials and changes they have made and observe each other's lessons in order to learn from each other.

Small-scale Learning Enquires

This is a type of a small scale 'action research' enquires offer an opportunity fr teachers to pursue a particular interest, to take an idea a bit deeper, or to link an enquiry to a particular group of students rather than say a whole class.

Appreciative Inquiry (AI)

It is new way of managing change in organisation. Its four stages are Discover, Dream, Design and Destiny. Traditionally, the process of change starts from identifying a 'problem to be fixed', which runs the risk of making staff both defensive and fearful. The AI starts by trying to identify what happens when schools and individuals within it are working well. After 'Discover', you dream: creating a wish-list of what you would like to do. This frees people's minds to think more creatively. Then a team at school designs the work for an experiment. Then the team reflects on the outcomes.

A Final Word:

In the knowledge society, if teachers want to make progress as professionals and have an impact in the complex world of schools, they must learn to trust and value colleagues who are distant and different from them as well as ones who are the same. This professional trust moves people into the realm of the uncertain and unknown and in that sense 'involves a willingness to take risks or to place oneself in a vulnerable situation'. Teamwork, learning from people who are different, sharing information openly – all of these essential ingredients of the knowledge society involve vulnerability, risk and a willingness to trust that the processes of teamwork and partnership will ultimately work for the good of all, including oneself (Hargreaves, 2003:28).

References

Alrø, H., Skovsmose, O. & Valero, P. 2007. Landscapes of learning in a multicultural mathematics classroom. In D. Pitta-Pantazi & G. Philippou (Eds.), *Proceedings of the fifth conference of the European society for Research in Mathematics Education* (CERME 5) (pp. 1567–1576). Larnaca, Cyprus: University of Cyprus – ERME. Retrieved November 10, 2011 from http://ermeweb.free.fr/CERME5/

Borko, H., & Putnam, R.T. 1995. Expanding a teacher's knowledge base: A cognitive psychological perspective on professional development. In T. R. Guskey & M. Huberman (Eds.), *Professional development in education: New paradigms and designs* (pp.35–65). New York: Teachers College Press.

Bose, S. 2010. *Redefining Instructional Strategy in Teacher Education in the Perspective of Knowledge Society*. 6th Pan-Commonwealth forum on open learning, 24th-28th November, Le Meridien, Kochi, India.

Burke, C., & Grosvenor, I. 2003. *The school I'd like: Children and young people's reflections on an education for the 21st Century*. London: RoutledgeFlamer

Castells, M. 2001. *The Internet Galaxy : Reflections on the Internet, business, and society,* Oxford University Press, Oxford.

Claxton, G., Chambers, M., & Powell, B. 2011. *The Learning Powered School: Pioneering 21st Century education*. Bristol: TLO Limited.

Darling-Hammond, L. 2006. *Constructing 21st-Century Teacher Education*. Journal of Teacher Education 57(3), 1-15.

Darling-Hammond, L. & McLaughlin, M.W. 1995. Policies that support professional development in an era of reform. *Phi Delta Kappan*, *76*(8), 597–604.

Day, C. & Sachs, J. (Eds.). 2004. *International handbook on the continuing professional development of teachers*. Maidenhead: Open University Press.

Day, C. 1999. *Developing teachers: The challenges of lifelong learning*. London: Flamer Press.

European Council (2000). *Presidency conclusions of the council of the European Union*. http://www.europarl.europa.eu/summits/lis1_en.htm

Fenwick,T.J. 2001. *Fostering teachers' lifelong learning through professional growth plans: a cautious recommendation for policy* prepared for the 2001 Pan-Canadian Education Research Agenda Symposium Teacher Education/Educator Training: Current Trends and Future Directions. May 22-23, 2001 Laval University, Quebec City.

Hargreaves, A. 2003. *Teaching in the knowledge society: Education in the knowledge age of insecurity*. New York, Teachers College Press.

Hargreaves, D. 1994. The new professionalism: The synthesis of professional and institutional development. *Teaching and Teacher Education*, *10*(4), 423–438.

Howe, A., & Stubbs, H. 1996. Empowering science teachers: A model for professional development . *Journal of Science Teacher Education* , 8 (3), 167-182.

Jacoby, A. 2007. The knowledge Society and global dynamics in education politics. *European Educational Research Journal, 6 (1),* 39-45.

Kelchtermans, G. 2004. CPD for professional renewal: Moving beyond knowledge for Practice. In C. Day & J. Sachs (Eds.), *International handbook on the continuing professional development of teachers* (pp. 217–238). Maidenhead, ST: Open University Press.

Mansour, N. & Al-Shamrani, S. 2011. *Perceived Professional Development Needs for Saudi Arabian Science Teachers*. A Paper presented at ESERA conference, France, Lyon, September 5th -10th.

Mansour, N. & Al-Shamrani, S. 2012. *Rethinking of the continuing professional development in Saudi Arabia: Teachers' perspectives*. A Paper presented at ASTE conference, Florida, USA, January 4th -7th.

Mansour, N., & Wegerif, R. 2010. التعلم في مرحلة الطفولة المبكرة في مجتمع المعرفة (Early childhood learning in the knowledge society). *Journal of Arab Children* (Kuwait), 11 (43), 8-28.

Stigler, J.W. & Hiebert, J. 1999. *The Teaching Gap: Best Ideas from the World's Teachers for Improving Education in the Classroom*. New York: Free Press.

Towndrow, P.A., Tan, A.-L., Yung, B.H.W., & Cohen, L. 2008. Science teachers' professional development and changes in science practical assessment practices: What are the issues? *Research in Science Education, 40* (2), 117-132.

Wegerif, R., & Mansour, N. 2010. A dialogic approach to technology-enhanced education for the global knowledge society. In M. Khine, & I. Saleh (Eds.) *New Science of Learning: Cognition, Computers and Collaboration in Education (pp325-340),* New York, Springer.

Wenger, E. 1998. Communities of practice: learning, meaning and identity (New York, Cambridge University Press).

Creative Universities for Preparing the Creative Class in the 21st Century

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ABSTRACT This paper addresses the question whether universities today are creative enough to construct new bodies of state-of-the-art knowledge to teach to their students and to pioneer innovative inventions to solve the economic, social, and ecological problems of the fast changing world. Research funding has fueled research activities in campus to foster invention and facilitate the creative process with the expectation that the funding can generate economic benefits for the country. Instead, it yields a very small rate of return as the research may generate few technological innovations or economic payoff. When some university research receives criticism as it failed to generate practical payoff in terms of meeting the needs of industry and the public, some universities have proved themselves to be successful to become the world's innovative power house. Those successful universities with their creative leadership have prepared their graduates to be innovation ready to enter the creative class of the workforce. To cultivate creativity in this fast changing world, this paper proposes five dimensions for universities to focus on: optimizing the interaction of individual, domain and field; flowing the spirit of creativity to the whole university; using technology and activating entrepreneurship, and moving from second- to third-generation creativity. Third generation creativity comprises the social-ecological worldview, ethics and interdisciplinary approach, capability approach, and cosmopolitanism and promoting English as a Lingua Franca for universities residing in non-English speaking countries.

Keywords: creativity, higher education, creative class

The world has changed rapidly and dramatically, and how about universities? How can universities with their core business—teaching and research—prepare leaders and professionals of the fast-changing world in the creative and innovative era of today and tomorrow? Are universities ahead or behind the fast changing world in terms of invention, management, entrepreneurship, and social-ecological integrity? For centuries the vital role of universities in preparing economically valuable intellectual resources and its social and cultural vitality is obvious. They have developed and disseminated new knowledge and critical thinking, essentially for preparing good teachers, engineers, physicians, scientists, lawyers, businessmen, designers-to name but a few--of today and tomorrow. They are the potential professionals, leaders and drivers of the fast-changing world. In a creative era, of which the economy is driven by knowledge and creativity, the societies' reliance on universities has also tremendously been increasing. Following the increasing growth of its importance, the success of a university is predominantly judged through research performance. Every university wants to produce world-class research to meet innovative economy and to make sure that it will provide students with cutting-edge formal learning and teaching environment, and state-of-the-art knowledge. For instance, to maintain the supremacy of the USA in the world, President Obama clearly preserved its pre-eminence through research and innovations, and he firmly declared:

> "We know that the nation that goes all-in on innovation today will own the global economy tomorrow...." (From: White House Office of Science and Technology Policy, March, 2014, p.1).

After the declaration, in the Fiscal Year 2015 the President proposed a S135.4 million spending plan for research and development in universities, compared to the the 2012 Federal Government investment of $90 billion. Research funding fueled research activities in campus, and university-based inventors were successful to file over 12,000 patents in 2008, and 3,280 were approved. However, regarding licensing fees, federal investment generated a very small rate of return, because not all of the ideas produced were successful in the marketplace. Patents do not guarantee that the products are used and can successfully generate revenue. In fact, research funding in the universities are not only from the federal government, but also from so many other resources. It is a concern, because university research does not only take large financial investment, but also considerable academic staff time. Once again, supported by large fundings, universities are a place for the community of scholars to dedicate themselves for the advancement of knowledge creation, and for cultivating creativity, but the output of universities shown by the patents they produce does not guarantee that they are successful to produce innovative products to fill the market needs. Universities need to improve themselves; they need to be more creative.

CREATIVE UNIVERSITIES: THE WORLD'S INNOVATION POWERHOUSE

As mentioned above, although in general university research in the USA has not led to positive economic return, according to Reuters the US university system is still the world's innovation powerhouse. Top innovative universities still contribute to the wealth creation of the country. Standford University as the first ranking innovative university in the USA and the world, has proved that serious efforts in conducting research and to educate future leaders and entrepreneurs can still be immeasurably rewarding. Standford university's alumny generates $2.7 trillion annually, and since 1930s have created 5.4 million jobs in their 39,900 companies, such as google. Hewlett Packard, Cisco System, Gap, Nike, Tesla Motors, etc. This amount is equal to the position of a nation with the world's 10th largest economy.

In spite of the background of weapons research and development, the postwar creation of Silicon Valley by Stanford University under the creative and innovative leadership of Fredrick Terman, for example, was first inspired by how MIT was successfully recognized as a world-class university. The main reason was that there was a good collaboration between the university and the local companies. As a result, excellent research jobs were growing around the greater Boston Area. The link between the university and the companies became stronger, and when graduate students were placed in those companies for internships and job opportunities, the MIT-local companies cooperation became even stronger, and the convertion of university research and knowledge development to useful products became more intense.

It is always remembered how Stanford University initiated the industrial powerhouse by first asking two students William Hewlett and David Packard to set up a company in the land provided by the university. This environment gave birth to the inventors such as Steve Jobs and Marc Andreessen. Until today Stanford University is still the first place ranking of innovative universities, as it is followed by MIT and Harvard University. Both professors and students never cease to innovate and develop partnership to keep Silicon Valley truly up-to-date and excell.

In Stanford University professors are granted one day per week release time for consulting work to the industries around the campus. This opens up to the opportunity to make use the professors' problem solving expertise in the real workplace. During the practical activities professors will know what skills companies need from graduating students, and this information is very useful for the revision of course content, or the creating of new courses or sometimes new departments.

According to Reuters the 10 most innovative universities in the world today are all in the USA, except two, as shown in Table 1.

Table 1: The Ten Top Innovative Universities according to Reuters

Rank	University	Country
1	Stanford University	USA
2	MIT	USA
3	Harvard University	USA
4	University of Texas System	USA
5	University of Washington System	USA
6	KAIST	South Korea
7	University of Michigan System	USA
8	University of Pennsylvania	USA
9	KU Leuven	Belgium
10	Northwestern University	USA

Among the 100 top innovative universities, 46 are in the USA, followed by Japan with nine, and France and South Korea both with eight. Among those onehundred universities, Asian universities in the list are only from Japan, South Korea, China and Singapore.

It started in the USA, but today creative and innovative movement continues to grow and has spread around the world. Universities have committed on the role on transferring research to industry, generate new inventions and patents, and spur-off its technology in the form of startup companies. They have also proven key contribution to regional development, too (Florida et al., 2006).

UNIVERSITIES IN INDONESIA IN THE CREATIVE ERA

There are 4312 tertiary education institutions in Indonesia; 372 are public and 3940 are private. However, none is listed in the 100 world-class innovative universities. Innovative universities still belong to wealthy and advanced nations, and they are also an important element for the driver of state economy. While Indonesian universities have not emplaced themselves in the list of 100 top innovative universities, coterminously Indonesia still ranks 115 in the Global Creativity Index, as shown in Table 2.

Compared to the other ASEAN countries involved in the ranking, Indonesia as a large country-the world's 15th-largest country in terms of land area and the fifth in terms of population-still needs to work harder to improve its rank. Seven countries out of ten in Southeast Asia were rated, and Indonesia still ranks the lowest on the Global Creativity Index, as shown in Table 3. Apparently Richards et al.'s (2011) concern about the under-recognized, underdeveloped and under-rewarded of creativity as higher human potential (3U's) is still taking place in Indonesia.

Table 2: Indonesia among the Ten Top Countries on the 2015 Global Creativity Index

Rank	Country	Technology	Talent	Tolerance	GCI
1	Australia	7	1	4	0.970
2	USA	4	3	11	0.950
3	New Zealand	7	8	3	0.949
4	Canada	13	14	1	0.920
5	Denmark	10	6	13	0.917
6	Finland	5	3	20	0.917

7	Sweden	11	8	10	0.915
8	Iceland	26	2	2	0.913
9	Singapura	7	5	23	0.896
10	Netherlands	20	11	6	0.889
115	Indonesia	67	108	115	0.202

Note: GCI: Global Creativity Index

The Global Creativity Index (Florida et al., 2015) is a broad-based measurement based on the 3 Ts of economic development—talent, technology and tolerance. It rates and ranks 139 nations world wide for overall measure of creativity and prosperity.

Table 3: Indonesia among Other ASEAN Member Countries on the Global Creativity Index

Rank	Country	Technology	Talent	Tolerance	GCI
9	Singapore	7	5	323	0.896
42	Laos	--	97	23	0.555
52	Phillipines	54	65	53	0.487
63	Malaysia	24	69	101	0.455
80	Vietnam	45	104	73	0.377
82	Thailand	38	84	105	0.365
115	Indonesia	67	108	115	0.202

There are many factors that contribute to the creativity of a nation. One factor is how early the nation has deliberately started to strive for creativity. Indonesia began to be fully aware of the importance of creativity in education when UNESCO first declared the 21st century as a creative century. This is in contrast with the USA. More than a half century ago, when J.Paul Guilford gave his APA (American Psychological Association) presidential address in 1950 he had pointed out the very important nature of creativity research in the USA. His speech was as short as one word-Creativity‖, but it was successful to make a paradigm shift. It gave birth to the movement of creative research in the USA, and J. Paul Guilford was one of the founders of the psychology of creativity.

In fact, universities should play a key role for developing the nation's creativity, as Runco (2004) highlighted that creative behavior can be strengthened and integrated into one's character through education. Although like intelligence, different people have different levels of creativity and Maslow (1968, p.143) described it as a fundamental characteristic inherent in human nature, creativity will be lost or buried as the person gets enculturated. Children are normally very creative and divergent in thinking, but this potential has been suppressed by the society that expects intellectual conformity from them (Sternberg, 1999, p. 93; 2006; and Robinson, 2011).

THE GOAL OF CREATIVE UNIVERSITIES: PREPARING THE CREATIVE CLASS IN THE WORKFORCE

The idea of going to a university in the creative age is to embark upon the creative class, although some people were born creative and do not need tertiary education participation to enter the creative class (Batabyal & Nijkampf, 2010). Universities are at the center stage of spreading creative skills and shaping intellectual capitals, and in general, according to Peters and Besley (2013), education is at the centre of the economy and creativity nexus. Basically, creative skills include the production of new ideas, aesthetic forms, original works of art and

cultural products, scientific inventions and technological innovations, and solving others' problems.

Today universities need to creatively respond to the ongoing changing world where capitalism is taking a new shape. It has shifted from its previous industrial model to a creative and knowledge model. Human resources are valued as talented people, and they are called human capital. The talent produces creativity, a factor of production that never depletes or worn out, and become the driver of economic growth in today's creative economy. There is a shift of the workforce from the capitalists and the working class, to capitalist, creative class, and working class. In the past the working class took 50% of the whole workforce in the advanced countries, but today it has shrunk to 20 percent. In the USA roughly 30 percent of all employed people belong to the creative class, while in larger cities they have made up of more than 40 percent of the workforce.

The key difference between the creative class and the working class is that the members of the working class are primarily do routines, while those of the creative class engage in complex problem solving. They value creativity, individuality and difference and they share the economic function of creating new ideas, new technology and new creative content. Their values are in contrast with the traditional values of homogeneity, conformity and fitting in (Florida, 2012, pp.8-11). Creativity also involves the ability to synthesize and to take risks. There are varied forms of creativity; a creative engineer invents and a creative marketer develops his entrepreneurship.

If developing countries want to improve their position in the world, they should also learn the attributes of the creative class and prepare their citizens to embark on the class. The tertiary education system, especially, needs to encourage and harness creativity, because the creative class has proved itself as a key driving force for economic development of post-industrial cities in the United States.

To make their graduates adequately innovation-ready, universities in developing countries need to strive to be part of the creative class movement. Otherwise, in this fast-changing world, they will fall behind, and they will only witness that the creative class only belongs to the technologically advanced countries. As a society is the product of their education, and the quality of education is also the mirror of the society, being the driving force and agents of change, universities in the developing countries need to seek new strategies to accelerate creativity and innovations.

CULTIVATING CREATIVE UNIVERSITIES: THE FIVE PRINCIPLES

There is still no concrete data about the size of the creative class in Indonesia, but it is inferable from the report of the 2016 National Statistics Agency that 11.34 percent of the population completed post secondary education, 27.40% completed senior secondary education, while the rest 61.26 percent was the aggregate of those who completed junior secondary education, primary education, or hardly received any education. Although the creative class is not just a proxy measure for post-secondary graduates, and it is not only shaped by levels of education attainment, it seems that Indonesia still has a small share of the creative class.

Now that the creativity level of Indonesian human resources is still lower compared to other countries in Southeast Asia, universities need to propel creative thinking and innovation, and highlights the importance of creative skills for change and for the success in the 21st century. One leading mission of a university is to prepare the creative class of a nation. Creativity is both a process and a product. It is a process to generate new and useful products, practices, services, or procedures, and it is also the production of useful solutions to problems,

or novel and effective ideas (Amabile, 1996). When creativity has value, it becomes innovation, and innovation is the prerequisite for long-term survival of any organization (Shalley et al., 2004; Binnewies et al., 2004).

To cultivate creativity universities need to tirelessly facilitate the developmental nature of creativity, in spite of inhibiting it. Creativity as a concept should be well understood, So far, in spite of its importance, creativity as a concept has not been fully understood and defined. Policies, facilities and instructions should be mobilized to strengthen instead of squeezing creativity out.

To cultivate creativity, this paper proposes four dimensions to focus on: optimizing the interaction of individual, domain and field; flowing the spirit of creativity to the whole university, using technology and cultivating entrepreneurship, and moving from second to third generation creativity. This paper adapts Swirski's (2013) concept of third generation creativity and articulates it as encompassing the social-ecological worldview, ethics and interdisciplinary approach, capability approach, cosmopolitanism and promoting English as a Lingua Franca for non-English-speaking universities.

Optimizing the Interaction of Individual, Domain and Field

The success of creativity is not centered around one individual, but the interaction of three elements. Universities need to optimize the interaction of the three of elements: the individual, the domain, and the field. The individual is the talent or the human asset. They produces creative work, ideas, art, or new discovery. They are not just bright people, but they are creative people. Bright people are able to express unusual and stimulating thoughts, but creative people can express fresh and original ideas and make important discoveries. These creative people use symbols of a given domain to come up with a new idea.

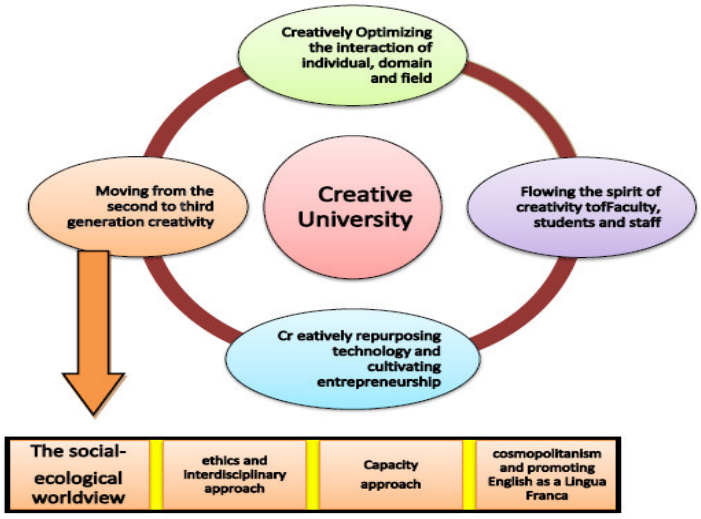

Chart 1: The four dimensions to focus on for creative universities

Their thoughts or their actions have the potential to change a domain, or to establish a domain (Csikszentmihalyi, 1997, p. 6).

The domain is the areas of specialized knowledge, such as mathematics, biology, physics, art, and more. It includes the tools, rules, conventions, knowledge, norms, and systems of techniques, codes, or symbols that help a person create or discover new things in the domain, while the field is the collection of experts who recognize and validate the innovation. They are the the communities of practice who make judgments and give the influence to the domains

about what is worth doing at the cultural or social level. They will direct how a symbolic domain in the culture is changed. They are the gate keepers of a domain. For examples, a collection of art teachers, curators of museums, collectors of art, critics, administrators of foundations and government agencies are those who will decide what can be recognized, preserved, and remembered. Some fields are very conservative and they reject most novelty, while others are more liberal in allowing new ideas into their domains.

Optimizing the Creativity of the Faculty, Students and Staff

A creative university optimizes the creativity of the faculty, students and staff. Creativy is not only restricted to the faculty, but also the staff and the students. The spirit of creativity should flow through the whole university. The faculty, students and staff need to work together for creativity and innovation. They should be involved in discovery, pushing the limits, taking a step to the unknown.

According to Amabile (1983), to perform in a creative manner, two conditions are necessary. First, the individual must have the ability to produce novel and original outputs related to the specific task. Being creative on a task requires two elements; that is, the expertise in the task domain, and the ability to engage in cognitive processes related to creativity. The second is that the individual needs to be motivated not only to engage in the task, but also to produce a creative output on the task. Therefore, to prepare innovative-ready graduates teachers need to become good role models for their students, inspire them, and keep themselves engaging the students.

Using Technology and Cultivating Entrepreneurship

As universities with their creativity and inventiveness have driven technology change, at the same time universities should wisely choose and utilize technologies for teaching and learning, especially for creating and sharing ideas and content, as well as finding creative solutions and outcomes. The employment of technology in education is not in isolation, but it should consider the opportunities for creative education. According to Henriksen et al, (2016) it requires forethought and planning in the use of technology. Since most digital tools like Facebook, smart-phone, twitters, are not designed for educational purposes, it requires the teacher's creativity to repurpose them. Technology also offers the the possibility of creative sharing and creative output across global contexts.

Today the technology of academic publishing has also developed the open access system, create easy access, great speed and lower cost to research materials. This advancement has reduced inequalities in intellectual opportunity across the globe, and a key step for universities to become creative universities Roberts, 2013).

A creative university needs to develop creative entrepreneurship. It is not just to teach entrepreneurship courses. Being a creative university, it should be able to extend the frontier of knowledge according to its time and its place; it should also serve the society for economic growth. Research in creative university should have an impact for intensive economic activity. Okpara (2008) calls it as knowledge with economic potential and economic power. The knowledge should be available and usable to the industry, and it can be transformed to business ventures. The faculty research is potentially the students' umbrella research and students will adopt and be inspired by the innovativeness of their professors' research, and they will use university as their workshop to obtain a first-hand experience about innovativeness and marketable knowledge. Knowing marketable research will promote the students' mental productivity. Knowledge is a commodity and creativity is the capital.

Moving From Second to Third Generation Creativity

The notion of the third generation creativity is introduced by Swirski (2013). This notion goes beyond the boundary of neo-liberalism, as education should go beyond economic imperatives. The third generation creativity that leads to the ideal practices of higher education of today and tomorrow rests on six key dimensions: a social-ecological worldview, cosmopolitanism, a capability approach, ethicality, multimodality and pedagogy. This paper uses some of her ideas on key dimensions, and adjustment are made and proposed to be more comprehensive and relevant to non-English-speaking countries, like Indonesia. The adjustments result in five key dimensions: the social-ecological worldview, cosmopolitanism, ethics and interdisciplinary approach, capability approach and English as a Lingua Franca.

The third generation creativity (Swirski, 2013) is beyond the first and the second generation ones. The notions of first (big "C") and the second (small "c") generation of creativity were introduced by William and Dawson (2008). "C" creativity is the processes and products of collaborative and purposeful activity; it is intuitive, introspective, inspiring, and etherial. The outcome is invoked through serendipity and randomness. The "c" creativity is augmented with economic ethos. It becomes the driver in the digital economy and becomes the creative capital. Creativity does not only naturally belong to individual genius, but it is learnable, observable and team-based. Creative capital is connected to university pedagogy which results in a framework of creativityenhancing learning environment in higher education. According to William and Dawson (2008) 75 percent of Australian universities are committed to creative learning outcomes. In the second generation of creativity, productivity is more important than responsibility. In contrast to "C" and "c" creativity, the emergence of the third generation creativity generates wise creativity, which is a morally-, ethically-, and ecologically-oriented creativity (Sternberg, 2003: Craft, 2006; and Craft et al., 2008).

The Social-Ecological Worldview

Expanding the second generation creativity, the third-generation creativity is social-ecological, and relies on conscientization or critical consciousness for a more sustainable interrelationship between the social and natural world. Swisky (2013) understands that a university has the responsibility to transform the world to avoid social and ecological disaster. Using Barnett's term (2011) she highlights the importance of the notion of ecological university, which takes seriously both the world's interconnectedness and the university's interconnectedness to the world. The neoliberal ideology has the potential to lead universities toward the subordination of both teaching and research to corporate objectives (Radice, 2013).

The new worldview brings together a range of new values that ideologically can completely be in opposition to mercantilization in the second generation of creativity. The demarcation can potentially cause tension, but it is creativity that makes the second generation in a constantly changing process toward the third generation. The two can link or well interwoven together before the third generation creativity can completely replace the second generation one. It is a constantly changing process toward idealism.

According to Olssen & Peters (2005) neoliberalism is one element of globalization, and in global neoliberal environment teaching and research in universities have been commodificated and marketized. Knowledge is the most important form of global capital. Individuals have lost the freedom they had in the classical liberal environment, because the state has intervened and made them competitive entrepreneurs. Performativity—reflected through strategic planning, quality assurance, etc.--is stressed, and it replaces autonomy and academic

debate which leads to deprofessionalism. All these practices may result in opportunism, dishonesty and unreliable behavior.

To respond to this situation, the social ecological worldview keeps compassion at the foreground and cares about the environment. In this light, it expands beyond the interest of an individual to a broader social and material interpretations.

Ethics and Interdisciplinary Approach

In a complex world like today we have increasing issues and scandals in all domains of life; universities begin to integrate ethics into their curriculum to match the mission and vision of their universities. Today we have more emerging problems than any time before, and interdisciplinary skill is an essential resource for addressing problems. Also, in this complex world we need to develop interdisciplinary understanding in order that we can be more sensitive to ethical issues, enlarge our perspectives, foster critical thinking, advance problem solving skills, and more comprehensively explain phenomena (Towell et al., 2012).

Ethics is a perspective for deciding how to act and how to analyze a variety of complex problems and issues. When ethics is applied to education it will address moral features of educational activities. According to Swinski (2013), from a social-ecological perspective, the interplay between ethics and creativity is multi-temporal. Third generation creativity requires the ability of recombining present interactions, while considering both past experiences and future consequences across both our human and physical worlds. The environment is one element of the future ecological discourse because human beings can only survive in a harmonious and sustainable environment.

Ethics is important in university creativity, because every academician is responsible to other people and history. He has to go beyond his own individual spheres of interests. According to codes of ethic teachers have the obligation to recognize the supreme importance of the truth and to transmit the truth, and to stimulate the spirit of inquiry. Also, the future generations and their academicians will certainly be critical to the knowledge and theories produced by their precedessors, while we leave them with environmental, health, economic and political problems, in spite of our technological advancement. Therefore, creative universities are ethical and humanist universities for solving the problems of mankind.

Kačerauskas (2015) posits that human beings always believe that they are superior towards his natural environment and they have the capacity to change the environmental balance. The fact is, however, on the one hand, that the more they think that they are stronger to their environment, the more hostile the environment is towards them. On the other hand, the human beings should be stronger to the nature to survive. In the light of this paradox, certain disharmony and unsustainability of the environment always exist. This paradox reflects Darwin's theory of evolution which is based on two inseparable ideas. The first idea is that the organism has to fight in the hostile environment, and the second is that only the fittest survives and develops towards higher organisms.

As a result, human beings are expected to be the agent to transform certain environmental disorder towards better order, both in the social and natural environment. As academicians are the core of the creative class (Florida, 2012), ethically they are expected to go beyond his own individual disciplines, and employ the interdisciplinary approach for developing academic creativity, because academicians such as scientists, philosophers, sociologists, psychologists, economists, media theorists, political scientists, and urban theorists will work together in one creative discourse for the benefit of the society. Issues developed by the academic ethics is equal to critical thinking. Academic or intellectual life, virtues and creativity are inseparable

because virtue is nourished by creating scientific ideas that should be realized both in the social life and in the individual life of an academician (Kačerauskas, 2015).

Holism or interdisciplinary approch becomes more important when decision makers have to face a variety of questions and problems. However, most academics and decision makers incline to use a single disciplinary means in solving the complexities of social problems. One reason is that they have not received interdisciplinary education and training. Until today universities are still discipline-based. Developing interdisciplinary skills is developing the skill of using insights relevant to academic areas in solving problems. This is not a simple skill, and universities need to provide their students the opportunity to develop this skill, and implement the ethic of interdependence (Mulej et al., 2006). Important research topics often transcend the scope of a single discipline, because interdisciplinary pushes fields forward and accelerates scientific discovery and technological innovations (Tuana, 2013). Tuana also argued the importance of developing the model of interdisciplinary practice based on ethical-epistemological principles. In response, universities need to respond to the issues of institutional, disciplinary barriers, epistemic barriers, of which the boundaries of the three areas are porous.

The Capability Approach

The capability approach was first pioneered by Amartya Sen, a moral philosopher, welfare economist, and a Nobel prize winner in economics, and Martha Nussbaum, a philosopher. The term capability approach is new, but the idea is much influenced by Aristotelian conceptions of flourishing as the basis of the good human life (Johnstone, 2007). Everyone has to flourish, that is to promote the core of virtue ethics, that is to exhibit outstanding performance of one's task.

In light of the third generation creativity, Swirski (2013) cites that the capacity to be creative is interrelated to finding solutions to specific situations and occurring practices. Capabilities are dynamic, deliberative and performative, and she quoted Dewey (1928) that both context and change are crucial features of how capabilities evolve, becoming part of our series of situations or experiential continuum.

The capacity of an organization or the creativity of an organization such as a university resides with the individuals. As we believe that capacity is dynamic, instead of static, training and professional development are very important (Azadegan, 2007). In universities capabilities are not narrowly defined skill sets; they are complex, so that they need broad and rich capabilities .This capability is not only for the increased aggragate economic gains as expected by the neoliberal ideology. Instead, it contributes towards opening up dialogue practices aligned with a social-ecological imagination. It entails mindfulness both for meaning-making and for decision-making (Swirski, 2013).

Cosmopolitanism

Cosmopolitanism is another dimension of third-generation creativity, and creativity in this context is a collective, local-global approach of creativity. In this perspective creative practices in universities are not isolated, but interwoven with one another across geography, spaces and places (Swirski, 2013). Cosmopolitanism itself is a vision of the world that sees all humanity belong to the same community, regardless their national, religious, cultural or political affiliation (Strand, 2010). According to Britez and Peters (2010) neoliberalism has primarily looked at international students in research universities as a strategic economic resource, but in the creative cosmopolitanism, universities are a networked environment of

transnational spaces. Cultivating cosmopolitan perspective, they create the globally aware citizens ready to exchange ideas. In other words, cosmopolitanism in creative universities is not about the neoliberal marketing strategies of corporate universities, but encompasses the political, social and cultural dimensions relevant to the practice and experience of being a world citizen.

Although the term cosmopolitanism (Greek: cosmo politês) was not new, as it was first coined by Diogenes the Cynic (412–323 BC), and its revival is much influenced by the global political crisis, refugee cricis, and energy crisis (Hooft, 2014). Universities need to collaborate, to creatively address and solve the problems, and to develop a global ethics through which they can articulate and exercise their global responsibilities as a bridge between the local and the global. Britez et al. (2010) emphasizes that universities are not corporations, because they are not only for economic development but for offerring opportunities for the development of intellectual, social and life skills to their graduates.

English as a Lingua Franca

Concerning cosmopolitanism, English proficiency is a crucial tool to bring professional success and interconnectivity of universities around the world. English is the language for cross-border relationships and global flows of people, information, and knowledge. However, English proficiency has become a linguistic challenge for higher education internationalization in non-English speaking countries, especially in the Kachruvian expanding circle countries, but it is an advantage for the inner circle ones. This is a challenge that never takes place in inner circle countries. Kweldju (2016) has coined the term language branding to describe the competitive identity of English in higher education institutions. Even to participate in short-term international mobility, for example, more often than not students and scholars from expanding circle countries have to demonstrate evidence of an adequate level of native-speakerbased conceptions of proficiency.

Kachru (1985, pp.366-7) introduced an influential classification in his three circles models. English is playing a crucial role in higher education, Kachruvian expanding circle countries. The first is The Inner Circle, which is made up of those speakers who are native speakers of English, such as those living in the UK, USA, and Canada. They are traditionally used for English norms by the speakers of the other two circles of countries. The Outer Circle countries refer to the former colonies of the members of the inner circle; for examples, Singapore, Brunei Darussalam, and Nigeria. Most of those countries were the colonies of the UK or the USA. The third is the Expanding Circle countries, where English plays no historical or governmental role, but it is learned as a foreign language for its importance in business, science, technology and education. It is the largest circle which includes countries such as Indonesia, Denmark, and China.

Kweldju (2016) proposed the need of a new instructional focus, new attitudes and new curricula for the teaching of English. The teaching of English should be shifted to ELF (English as a Lingua Franca) perspective. ELF is the use of English as a contact language or a common language between people who do not speak English as their mother tongue, e.g. between two engineering professors from Indonesia and Japan. Although ELF contains a large number of non-standard forms, but it serves as a successful means of communication. Their goal is mainly to use English for communication in short contact situations. With respect to this goal, the focus of the teaching of English should be on oral communication first before it shifts to the integrated four skills. Fluency must come before accuracy, and English should be taught lexically-based. The teaching of English at the tertiary level should be focused on developing the students' oral presentation skills, and the instruction should be student-driven.

CONCLUSIONS

Universities in the 21st century should continue to be a source of innovations and new directions for the changing world and contribute to the wealth-creation of the country, especially when neoliberal strategies have been adopted and implemented in higher education. Universities should play a key role for developing the nation's creativity, and are responsible for preparing the creative class of a nation, that is the class which always engages in complex problem solving tasks. World creative universities have proved themselves to become the world's innovative power house through their world-class research. Most of those universities are in the USA. Only a few universities in Asia belong to the top creative universities, and none is in Indonesia.

Now that the creativity level of Indonesian universities and human resources in general are still lower compared to other countries in Southeast Asia, universities in Indonesia need to work harder to propel creative thinking and innovation. They need to reform themselves and to operate in new ethos and ethic. When Indonesian higher education management has just started to adopt the neoliberal strategies in their governance, top creative universities have already combated the effect of neoliberal practices in higher education, especially the infiltration of economic rationality, and have adopted the ethics of social-ecology. Universities need to rely on the critical consciousness for a more sustainable interrelationship between the social and natural world, and they have the responsibility to transform the world to avoid social and ecological disaster.

To cultivate creativity, this paper proposes four dimensions for establishing creative universities: optimizing the interaction of individual, domain and field; flowing the spirit of creativity to the whole university, using technology and cultivating entrepreneurship, and moving from second to third generation creativity. The concept of third generation creativity is developed based on Swirski's (2013). It overarches the social-ecological worldview, ethics and interdisciplinary approach, capability approach, cosmopolitanism and promoting English as a Lingua Franca for non-English-speaking universities.

REFERENCES

Amabile, T.M. 1983. The social psychology of creativity. New York: Springer Verlag.

Amabile, T.M. 1996. Creativity in Context: Update to the Social Psychology of Creativity. Boulder, CO: Westview Press.

Azadegan A., Bush, D., & Dooley, K. 2007, Design creativity: static or dynamic capability? International Journal of Operations & Production Management, 28 (7), pp. 636-662.

Barnett, R. 2011. The coming of the ecological university. Oxford Review of Education, 37 (4), pp. 439-455.

Batabyal, A. & Nijkamp, P. 2010. Richard Florida's creative capital in a trading regional economy: a theoretical investigation. The Annals of Regional Science, 44(2), pp. 241-250.

Binnewies, C.; Only, S., Nielsen., C. 2008. Journal of Managerial Psychology 23(4), pp. 438-457.

Britez, R.G. & Peters, M.A. 2010. Internationalization and Cosmopolitical University. Geopolitics, History and International Relations. 2(1), pp.34- 61.

Craft, A. 2006. Fostering creativity with wisdom. Cambridge Journal of Education, 36(3), 337-350.

Craft, A., Gardner, H., & Claxton, G. (Eds.). 2008. Creativity, wisdom, and trusteeship: exploring the role of education. London Corwin Press.

Csikszentmihalyi, M. 1997. Intrinsic motivation and effective teaching: A flow analysis. In J. J. Bass (Ed.), Teaching well and liking it: Motivating faculty to teach effectively (pp. 72–89). Baltimore, MD: Johns Hopkins University Press.

Dewey, J., 1928. The Philosophy of John Dewey. New York: Holt, 1928.

Florida, R., Gates, g., Knudsen, B., Stolarick, K. 2006. The University and the Creative Economy. http://creativeclass.com/rfcgdb/articles/ University_andthe_Creative_Economy.pdf Florida, R. 2012. The Rise of the Creative Class: Revisited. New York: The Basic Book.

Florida, R. , C. Millander & K. King. 2015. The Global Creativity Index. Toronto: Martin Prosperity Institute, Rotman School of Management.

Henriksen, D., Mishra, P., & Fisser, P. 2016. Infusing Creativity and Technology in 21st Century Education: A Systemic View for Change. Educational Technology & Society, 19 (3), 27–37.

Hooft, S. 2014. Cosmopolitanism: a philosophyfor global ethics. Durham, GC: Routledge. Johnstone, J. (2007). Technology as empowerment: a capability approach to computer ethics. Ethics and Information Technology, 9, pp. 73–87

Kačerauskas, T. 2015. Creative ecology in academic environment. Filosofija. Sociologija. 26(3), pp. 239–248. Kachru, B. B. Standards, codification, and sociolinguistic realism: The English language in the outer circle. In: Quirk, R. and H. Widdowson, (eds.) English in the World: Teaching and Learning the Language and the Literature. Cambridge: Cambridge University Press, 1985.

Kweldju, S. (2016). Higher education internationalization needs a new instructional focus, new attitudes and new curricula for the teaching of English. JACET Selected Papers, 3, pp. 68-97.

Maslow, A. 1968. Towards a psychology of being (2nd ed.). Princeton, New Jersey: Van Nostrand.

William, E. & Dawson, S., 2008. Teaching for creativity: towards sustainable and replicable pedagogical practice. Higher Education, 56, pp.633–643.

Mulej, M., Kajzer, S., Potokan, V., Rosi, B. & Knez-Ried, J., 2006. Interdependence of systems theories – potential innovation supporting innovation. Kybernetes, 35(7/8), pp. 942-954 Okpara, O.F. Building an Entrepreneurial University for the Challenges of the 21st Century - The Ethiopian Perspective. A paper presented at 2008 International Council for Small Business World Conference. Halifax, Nova Scotia, Canada, June 22-25, 2008.

Olssena, M. & Peters, M.A., 2005. Neoliberalism, higher education and the knowledge economy: from the free market to knowledge capitalism. Journal of Education Policy, 20(3), pp. 313–345.

Peters, M.A. & Besley, T. (2013). Introduction: the Creative University. In Michael A.Petera & Tina Besley. The Creative University, Rotterdom: Sense Publishes, pp. 1-8. Radice, H. (2013). How We Got Here: UK Higher Education under Neoliberalism. ACME: An International E-Journal for Critical Geographies, 2013, 12(3), 407-418 .

Richards, R., Kolva, J. Atkin, M., Cheatham, H., Crocker, R., Ockuly, M.D., Goslin-Jones, T., Jones, C., Kasian, S.J., Kenny, R.M., and Smith, G., 2011. Creativity Revalued How Professors, Students, and an Innovative University are Turning the Tide, NeuroQuantology, 9(3), pp. 468-93.

Roberts, P. 2013. Openess, closure and Creativity: Knowledge Production in 21st century universities. Introduction: the Creative University. In Michael A.Petera & Tina Besley. The Creative University, Rotterdom: Sense Publishes, pp. 131-44.

Robinson, K. 2011. Out of our minds: Learning to be creative. Oxford, UK: Capstone Shalley, C.E., Zhou, J. and Oldham, G.R. (2004),-The effects of personal and contextual

characteristics on creativity: where should we go from here? Journal of Management, 30(6), pp. 933-58.

Sternberg, R. J. (Ed.). 1999. Handbook of creativity. New York, NY: Cambridge University Press.

Sternberg, R.J. 2003. Creative Thinking in the Classroom. Scandinavian Journal of Educational Research, pp.325-38.

Sternberg, R. 2006. The Nature of creativity. Creativity Research Journal, 18(1), 87-98.

Strand, T. 2010. Cosmopolitanism: Critical Concepts in the Social Sciences. Studies in Philosophy and Education, 29(2), pp.229-42.

Swirski, T. 2003. Third Generation Creativity. Introduction: the Creative University. In Michael A.Petera & Tina Besley. The Creative University, Rotterdom: Sense Publishes, pp. 145-60.

Towell, E., McFadden, K.L., McCoy, W.C., and Buhrow, A., 2012. Creating an Interdisciplinary Business Ethics Program. Journal of Academic Ethic, 10, pp. 93-112.

Tuana, N. 2013. Embedding philosophers in the practices of science: bringing humanities to the sciences. Synthese, 190, pp. 1955–73.

The Utilization of Ferns as a Model Organism for Studying Natural Polyploidization Concept in Genetics Course

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Abstract: The Genetics lecture in the Department of Biology, Faculty of Mathematics and Natural Science, Universitas Negeri Malang (FMIPA UM) has its own characteristics distinguishing it from Genetics lecture at the other universities. One of characteristics is there are research projects designed by students utilizing various model organisms. Natural polyploidization is one of the concepts learned through the research project. Fern is used as one of model organisms in the research project. The aim of this study was to describe the utilization of ferns as a model organism in Genetics I course in FMIPA UM. The study was conducted with a qualitative approach. The data were collected from January 2016 to September 2016 by interview, observation, and documentation techniques. The data were analyzed using an interactive model of Miles and Huberman. The validity of data were re-tested using an extension of participation, persistence of observation, and triangulation. The research results showed that through research project activities, the students (1) were able to learn the natural polyploidization concept contextually; (2) easier to understand the natural polyploidization concept; and (3) were trained to be a real researcher.

Keywords: fern, genetics course, model organism

Genetics lecture at FMIPA UM has characteristics distinguishing it from Genetics lecture at the other universities that are the approach and the kind of learning activities (Fauzi et al, 2016). The Genetics lecture in FMIPA UM adopts the content approach, not the historical approach as in the other universities (Khairil, 2009). The lecture materials discussed at FMIPA UM hierarchically structured into seven great concepts, that are the Understanding of Genetics, Genetics Material, the Reproduction of Genetics Material, the Work of Genetics Material, the Change of Genetics Material, Population Genetics, and Genetic Engineering (Genetics I FMIPA UM Learning Plans, 2016; Genetics II FMIPA UM Learning Plans, 2016). Then, there are two main activates in Genetics lecture at FMIPA UM that are theoretical lectures and practical lectures. Furthermore, the practical activity consists of classical and project researches (Khairil, 2009; Fauzi et al, 2016).

The existence of project research is one of characteristics in Genetics lecture at FMIPA UM. The research project is the research activities conducted by Genetics students for one semester. In the activity, students are required to find a research idea until communicate research report with the guide of project assistant (Fauzi et al, 2016). Various genetics concepts learned through research project activities. One of the concepts is the natural polyploidization.

Polyploidization is the increase in genome size caused by the inheritance of an additional set (or sets) of chromosomes (Otto, 2007). There are two main mechanisms of polyploidization, autopolyploidy and allopolyploidy. (Krebs et al, 2013). In autopolyploidy, the duplicated sets of chromosomes originate from the same or a closely related individual, while in allopolyploidy the duplicated sets of chromosomes originate from the hybridization of two different species (Tamarin, 2001). One common effect generated from polyploidization is an increase of cell size

(Snustad & Simmons, 2012). The increasing of the cells size by polyploidization can cause the increasing of body size in some multicellular organisms (Kliman, 2016).

Polyploidy is a common phenomenon occurring in plants, but rarely occurs in animals (Snustad & Simmons, 2012). It is estimated that about 30 to 80% of all plant species are polyploid species (Tamarin, 2001; Meyers & Levin, 2006; Otto, 2007). The high frequency of polyploidization occurrence in plants is also related to the role of this phenomenon in evolution and speciation of the plants (Ranney, 2006). The occurrences of polyploid species in plants can arise spontaneously in nature through a variety of mechanisms, including an error of mitosis and meiosis and the fusion of unreduced gametes (2n) (Comai, 2005). The groups of plants that contribute the largest number of polyploid species are angiosperms and ferns (Tamarin, 2001; Meyers & Levin, 2006).

A fern is a member of a group of vascular plants that reproduce via spores, have neither seeds nor flowers, and undergo an alternation of generations, the gametophyte and sporophyte (Christenhusz & Chase, 2014). Related to the polyploidy speciation frequency, ferns occupied the top of the list, beating angiosperms (Otto & Whitton, 2000; Wood et al, 2009). Still related with polyploidy incidence, some previous studies also indicated that in highlands that have a lower temperature, the ploidy level of ferns tend to be greater (Zubaidah, 1998; Setyawati, 2000). This is an agreement with the surveys presented in previous study by Weiss-Schneeweiss et al (2013) which concluded the increasing of altitude causing the increasing of polyploidy frequency.

In Genetics lecture at FMIPA UM, ferns are one of model organism in studying natural polyploidization through the project research activities. Various benefits can apparently be obtained from the research project activities. However, the research that studying the benefits obtained from the activity has not been done. Moreover, even though it provides many benefits, ferns also have never been used as a model organism in project activates in Genetics lecture at the other universities. Therefore, the study that describes the process of ferns utilization as model organism in Genetics lecture need to be done. The aim of this study was to describe the utilization of ferns as a model organism in Genetics I lecture in FMIPA UM. The research questions in this study, are (1) How the process of utilizing the ferns as a model organism in studying the natural polyploidization in Genetics lecture at FMIPA UM?; (2) What the benefits of utilizing the ferns as a model organism in studying the natural polyploidization in Genetics lecture at FMIPA UM?; and (3) What the obstacles during the utilizing the ferns as a model organism in studying the natural polyploidization in Genetics lecture at FMIPA UM?

METHODS

The study was conducted with a qualitative approach. The data were collected from January 2016 to September 2016 by interview, observation, and documentation techniques. The data were analyzed using an interactive model of Miles and Huberman. The validity of data was re-tested using an extension of participation, persistence of observation, and triangulation.

RESULTS AND DISCUSSION

General Process

The project research of the utilizing of ferns as model organism in studying the natural polyploidization concept is held in Genetics 1 course. Same with the other research projects, this research is also held for one semester (Khairil, 2009). The project activities were mostly conducted in Genetics Laboratory, the third floor of Biology Building, FMIPA UM. In the

activity, students were trained to find the idea or the problem of research, arrange a research design and research procedures, collect and interpret data, prepare a research report, until communicate the results (Fauzi et al, 2016). During the research project, students were also assisted by project assistant who guides their research.

A series of ferns project activities began by dividing the project group into 16 groups in the first week of Genetics I course. In this week, at each Genetics Class, the project assistant was dividing the project group randomly. Then, one of project group at each class were randomly selected as a ferns group. There were five Genetics classes at the semester, therefore, there were five ferns groups in this semester.

In the second week, ferns project groups met their project assistant. The assistant that guide the ferns project in this semester was Ika Sukma, S. Pd. At the meeting, the assistant project explained an overview of the project activates that will be carried out by ferns project groups for one semester. After that, the project assistant also commanded the ferns groups to search for some scientific publications studying ferns polyploidization. Based on the interview with Ika Sukma, S. Pd, the task was intended to make the students understand about the characteristics of the ferns to be used in their research and knowing the chromosome basic number of the ferns. In addition, the task was also intended to make students knowing how the procedure of making ferns objects. Through the scientific publication reading task, students will gain a variety of benefits, particularly related to the empowering their scientific process skill (Fain, 2009; Veit et al, 2014).

In third week, each ferns group met again with their project assistant to discuss several things. During this meeting, each group submitted scientific publications they have gotten to project assistant. In addition, each group was also explaining the information or their understanding of the scientific publications they have read. Through the task, students were not only trained to search for scientific publications, but also trained to understand and communicate the content of scientific publications that have been read. Through reading activity, they understand what previous researchers have done (Martin, 2012). In addition, the ability to read and understand the contents of scientific publications is essential for students before they do a research (Fain, 2009). Moreover, through this activity, students were empowered to access, analyze, synthesize, and communicate the information they obtain, those skills needed by a real researcher (Veit et al, 2014). After that, each ferns group discussed the fern species that will be choosen, the sampling areas, as well as the experiment design and procedures of their research. Each group was required to determine the three sampling areas, one place in highland, one in middle altitudes, and one in lowland.

In fourth week, each group met again with project assistant to ensure the sampling areas and clarified the procedures that have been discussed previously. In this week, each group also began to take the ferns from their sampling areas. After each group got ferns from their sampling areas, the ferns planted in their yard. Table 1 presents the students list names who receive the ferns project with their ferns species and their sampling areas.

Table 1. The List of The Students who got Ferns Project with Their Species and Sampling Areas

No	Name	Class	Fern Species	Sampling Areas
1	Ade Rezi Amelia	A	*Adiantum diaphanum*	Batu Lowokwaru (Malang) Tanggulangin (Sidoarjo)
2	Ismi Lailatul Rohma	B	*Dryopteris filix-mas*	Pasuruan

3	Rahma Ayu Fauziah	C	*Adiantum radiannum*	Tumpang (Malang) Kepanjen (Malang) Tajinan (Malang)
4	Gizella Ayu Wiantika	G	*Pteris vittata*	Tirtoyudo (Malang); Dampit (Malang); Batu
5	Mita Larasati	H	*Pteris vittata*	Leces (Probolinggo); Lumbang (Probolinggo) Sukapura (Probolinggo)

In the fifth until fifteenth week, each group carried out the ploidy level observation based on their procedure. The determination of fern ploidy level was based on the total number of chromosomes in root tip cells. Therefore, the step that must be done firstly was to prepare the fern root tip cells object. The root tip cells were selected as the object of observation due to the root tips are the main root growth area that actively carry cell division (Gupta, 2007). By selecting that region chances of getting the cells that are in metaphase or anaphase stages increases. By getting the cell in metaphases or anaphase stage, it will be easier for students to determine the total number of chromosomes in each of those cells. This is because when metaphase, chromosomes become highly condensed, so it easy to be observed (Cooper, 1994).

Before getting the observation objects, the first step that must be done is cutting the ferns roots. The cutting roots activity must be conducted at 9 AM. After getting ferns roots pieces, those roots were soaked in FAA solution. FAA is a fixative solution, thus, soaking the pieces of roots in FAA solution can keep root cells remain in their original state and stop the mitotic process in those cells (Bhargava & Srivastava, 2013; Stasolla & Yeung et al, 2015; Simpson, 2016).

When the students will conduct the observations, the root pieces washed with water to remove FAA and then put into the vial bottle. The next step was added 1 N HCl solution into the vial bottle. Then, after the vial bottle tightly closed, the bottle put in a water bath with a temperature of 60 ^{o}C for 15 minutes. The purpose of adding HCl is to destroy the substance that unites one cell to another (commonly pectin), but does not destroy the cell walls, while also able to stop the mitotic process (Carboni, 2010). Then, the roots pieces removed from vial bottle and those pieces washed using water.

The next step was the root pieces placed on glass object and cutting the root tips (the white part). After that, the pieces of root tips drip with acetocarmine and wait for five minutes. The aim of adding acetocarmine at this step is for dyeing the chromosomes of the root tips cells (Fukui & Nakayama, 1996). Then, the root tips pieces covered with cover glass and being run over by a pen. After that, the students were ready to observe the fern root tips chromosomes under a light microscope with a magnification of 1, 000x. Figure 1 shows some objects produced by students.

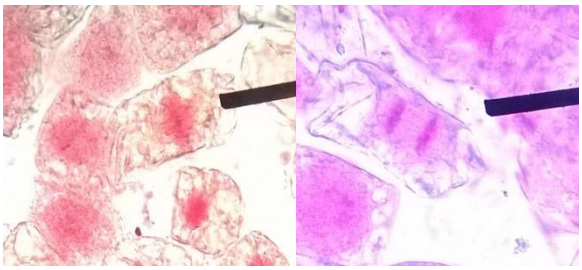

Figure 1 Some Objects Generated by Students

The determination of ploidy level is carried out by direct observation. Five cells at metaphase or anaphase stages from each of object in each ferns were observed. Every single cell was counted three times, and then the results of these calculations were averaged. The mean from each cell then were summed and then divided by five to obtain the mean of the total number of chromosomes from that fern. Furthermore, the mean of chromosomal total number was divided by the chromosomal basic number of the fern to determine the ploidy level of the fern. Five ferns were taken from each area as the replications. The determination of ploidy level by dividing the observed chromosome number with the basic chromosome number of those ferns accordance with previous research studying ploidy level in ferns, such as Zubaidah (1998); Perwati (2009); and Efendi et al (2014).

After collecting data for one semester, at the sixteenth week, the ferns group prepared a research report and presented their project. In this week, each fern group communicates the process and the results of their research to their classmates. After that, there were discussions sessions that provide an opportunity for their classmates to give advice, refutation, feedback, as well as questions related to their project. Then, the project assistant evaluating the project report have been submitted and reviewing the presentation and discussion that have been conducted. Based on the result of ferns research project activities, the general conclusion obtained is the ferns in higher altitude have higher ploidy level than ferns in lower altitude. Their results are in line with previous studies conducted by previous researchers, such as Zubaidah (1998) and Setyawati (2000).

A. The Benefits

Various benefits perceived by the students after conducting fern project research. Table 2 shows the benefits obtained by every fern project students after conducting their research. Based on Table 2, it is known that through fern research project, students can easily learn the polyploidy concept. This is because to the learning based research that applies the principles of inquiry are able to increase the concepts understanding of learners (Hassard, 2011). In addition, students were able to have the skills to conducting a research and the skills in making a ferns cells object.

Table 2 The Interview Result Reveals Some Benefits From Doing Ferns Project Research

No	Name	Benefits
1	Ade Rezi Amelia	Being able to observe the chromosomes directly, can observe the ploidy level in ferns based on altitude, acquire the skills to make object
2	Ismi Lailatul Rohma	Having knowledge from direct observation related to the effect of altitude on ploidy level in ferns and acquire the skills to make objects
3	Rahma Ayu Fauziah	Having experience and skill on conducting research and better understand the concept of polyploidy due to learn contextually
4	Gizella Ayu Wiantika	Easier to understand the polyploidy concept and acquire the skills to make object
5	Mita Larasati	Acquire the skills to make objects and can learn and observe the ploidy level in ferns directly

Besides the benefits already mentioned, there are other benefit obtained from project research activities in Genetics lecture at FMIPA UM. The benefit is students trained to be a real researcher (Fauzi et al, 2016). In the project activities, students were guided to determining a research idea, designing the research, collecting and analyzing the data, discussing research findings, as well as communicating the research. Those activities are the activities commonly performed by the real researchers.

The Obstacles

Some obstacles during the project activities were experienced by some ferns project groups. Table 3 shows the obstacles felt by every student during completing their research project. Based on Table 3 it can be seen that the main obstacle is related to the availability of microscope that support the chromosomes observation. In addition, the other obstacle was the time of cutting root that overlap with the other courses schedule and the obstacles related to the object that were not quite good. Related to the availability of microscope, it is expected this problem have been overcome in the next academic year. Related to making the object, it is normal because the skills to making good object can be obtained after practicing not in short time.

Table 3 The Interview Results Reveals Some Obstacles During Conducting Ferns Project Research

No	Name	Obstacles
1	Ade Rezi Amelia	The obstacles related to the time of cutting the roots, the difficulty in making the object that can observed easily, not all microscopes in Genetics Lab can be used to observing object under a magnification of 1000x
2	Ismi Lailatul Rohma	The difficulty in making the object that can observed easily
3	Rahma Ayu Fauziah	The obstacles related to collecting the samples from sampling areas and not all microscopes in Genetics Lab can be used to observing object under a magnification of 1000x
4	Gizella Ayu Wiantika	The difficulty in making the object that can observed easily and the obstacles related to keep ferns still alive
5	Mita Larasati	The difficulty in making the object that can observed easily, the obstacles related to the time of cutting the roots, and not all microscopes in Genetics Lab can be used to observing object under a magnification of 1000x

Conclusion

Ferns were used as a model organism in project research activity studying natural polyploidization concept in Genetics lecture at FMIPA UM. The research activity carried out during one semester. Various benefits perceived by the students after conducting fern project research, such as students can easily learn the polyploidy concept, students were able to have the skills to conducting a research and the skills in making a ferns cells object, as well as students trained to be a real researcher. However, there were some obstacles during doing the project, such as the obstacle related to the availability of microscope that support the chromosomes observation, the time of cutting root that overlap with the other courses schedule and the obstacles related to the object that were not quite good.

REFERENCES

Bhargava, A. and Srivastava, S. 2013. Quinoa: Botany, Production and Uses. Oxfordshire: CABI.

Carboni, G. 2010. Mitosis in the Root Tips of Garlic and Onion, (online), (http://www.funsci.com/fun3_en/mitosis/garlic.htm), Accessed on Nopember 13, 2016.

Christenhusz, M.J.M. and Chasem M.W. 2014. Trends and concepts in fern classification, Annals of Botany, 113, 4, 571–594.

Comai, L. 2005. The advantages and disadvantages of being polyploid. Nature Reviews Genetics, 6, 11, 836-846.

Cooper, N.G. 1994. The Human Genome Project: Deciphering the Blueprint of Heredity. Mill Valley: University Science Books.

Efendi, M., Chikmawati, T., and Darnaedi, D. 2014. New Cytotypes of Pteris ensiformis Var. Victoriae from Indonesia. Reinwardtia, 14, 1, 133-135.

Fain, J.A. 2009. Reading, Understanding, and Applying Nursing Research. Philadelphia: F. A. Davis Company.

Fauzi, A., Corebima, A.D., and Zubaidah, S. 2016. The Utilization of Drosophila melanogaster as a Model Organism in Genetics I and Genetics II Courses in Faculty of Mathematics and Natural Science, State University of Malang. Paper presented at 2nd International Conference on Education and Training (ICET), held at Universitas Negeri Malang, Malang, 5 Nopember 2016.

Fukui, K. and Nakayama, S. 1996. *Plant Chromosomes: Laboratory Methods*. Boca Raton: CRC Press.

Genetics I FMIPA UM Learning Plans, 2016;

Genetics II FMIPA UM Learning Plans, 2016

Gupta, P.K. 2007. Genetics Classical To Modern. New Delhi: Rastogi Publications.

Hassard, J. 2011. Science As In?uiry: Active Learning, Project-Based, Web-Assisted, and Active Assessment Strategies to Enhance Student Learning. Culver City: Good Year Books.

Kliman, R.M. 2016. Encyclopedia of Evolutionary Biology, Volume 1. Oxford: Academic Press.

Krebs, J.E., Goldstein, E.C., and Kilpatrick, S. T. 2013. Lewin's Essential Genes. Burlington: Jones & Bartlett Learning.

Martin, D.J. (2012). Elementary Science Methods: A Constructivist Approach. Belmont: Wadsworth.

Meyers, L.A. and Levin, D.A. 2006. On the Abundance of Polyploids in Flowering Plants. Evolution, 60, 6, 1198-1206.

Otto, S.P. 2007. The Evolutionary Consequences of Polyploidy. Cell, 131, 452-462.

Otto, S.P. and Whitton, J. 2000. Polyploid Incidence and Evolution. Annu. Rev. Genet., 34, 401-437.

Perwati, L.K. 2009. Analisis Derajat Ploidi dan Pengaruhnya Terhadap Variasi Ukuran Stomata dan Spora pada Adiantum raddianum. Bioma, 11, 2, 39-44.

Ranney, T.G. 2006. Polyploidy: From Evolution to New Plant Development. Comb. Proc. Intl. Plant Prop. Soc., 56, 137–142.

Setyawati, T.Y. 2000. Studi tentang Sebaran Ploidi Pteris tripartita di Daerah Dataran Rendah dan Dataran Tinggi. Skripsi tidak diterbitkan. Malang: UM.

Simpson, M.G. 2016. Plant Systematics. Burlington: Elsevier Academic Press.

Snustad, D.P. and Simmons, M.J. 2012. Principles of Genetics, sixth edition. New Jersey: John Wiley & Sons, Inc.

Stasolla, C. and Yeung, E.C.T. 2015. Paraffin and Polyester Waxes. In Plant Microtechniques and Protocols. E. C. T. Yeung (Eds.). Heidelberg: Srpinger Cham.

Tamarin, R.H. 2001. Principles of Genetics, seventh edition. London: McGraw-Hill.

Veit, R., Gould, C., and Gould, K. 2014. Writing, Reading, and Research, Ninth Edition. Stamford: Cengage Learning.

Weiss-Schneeweiss, H., Emadzade, K., Jang, T.S., and Schneeweiss, G.M. 2013. Evolutionary Consequences, Constraints and Potential of Polyploidy in Plants. Cytogenet Genome Res., 140, 1-22.

Wood, T.E., Takebayashi, N., Baker, M. S., et al. 2009. The frequency of polyploid speciation in vascular plants. PNAS, 106, 33, 13875–13879.

Zubaidah, S. 1998. Kajian Sitologi, Tipe Reproduksi Dan Ciri-ciri Morfologi Pteris Biaurita L. di Daerah Berketinggian Berbeda. Tesis tidak diterbitkan. Malang: UM.

The Influence Contextual of Learning Strategy Collaborative Type vs Expository and Achievement Motivation on Learning Outcomes Discourse Deixis

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Abstract. This study used two strategies of learning, which is a collaborative type of contextual learning and expository. This study aims to determine: (1) the differences in learning outcomes between groups of learners who were treated using contextual learning strategies and the type of collaborative learners group treated using expository strategy; (2) the differences in learning outcomes between groups of learners with high achievement motivation and the group of learners with low achievement motivation; (3) the interaction between the learning strategies and achievement motivation on learning outcomes discourse diesis. The instrument used is the instrument tests and questionnaires. From the analysis using Anova found F count of 8367 with significant value probability .004. Significance probability value is below the significance level of 0.05. Therefore, it can be concluded that Ho is rejected. That is, there is a significant difference between the results of the collaborative type of contextual learning vs expository. The conclusion is ini the application to the learners, the collaborative type is superior compared to expository.

Keywords: contextual learning, collaborative, expository, achievement motivation, learning outcomes, diesis

One subject in the subject matter of discourse analysis is diesis. According to Purwo (1984) diesis word comes from the Greek meaning dictions 'appointments directly' While in the Indonesian Big Dictionary (2003) stated daisies is or function points to something beyond language; a word that refers to the persona, time and place of a speech. A word is said to be diesis when its referent move. Or alternately, depending on who the speaker and depending on the time and place when spoken such as here, now.

Abdulwahid, et al (1994) said that the phenomenon of dicis is to describe the relationship between language and context within the structure of the language itself. Dicis based on prototype is the use of demonstrative pronouns, pronominal persona I, II, and III, when, specifically temporal and location (for example: now, here) and grammatical features that are tied directly in the speech situation. Dicis can be a location (place), identification of persons, objects, events, processes or activities that are being discussed or referenced in our time and space relationships when spoken by a speaker or a friend to talk.

A word that is dicis has references, or referrals. Abdulwahid, et al (1994). said reference is the relationship between words and things, but more broadly regarded as the reference language relations with the world. References in discourse analysis should consider the attitudes or behavior of the speaker or writer. Reference a sentence is determined by the speaker or writer. Reference may be endofora (anaphora and katafora) and exofora. Endofora textual, reference (reference) is in the text; while exofora is situational (reference or references are outside the text). Endofora divided into anaphora and katafora by position (distribution) of a reference point (reference). Anaphora cross reference to the elements contained in the foregoing; katafora cross reference to the elements mentioned later.

One very important element to obtain the results of learning is learning strategy. The strategy used to achieve success or success in achieving the learning objectives. Learning strategy is chosen ways to deliver learning methods in a particular learning environment, including the study of discourse. It is known that learning is learning the language of discourse dicis in the function or use of the language in the act of communication. Meaning of language is determined by the context of the situation and the culture in which that language is used. Meanings are not determined by the structure of the language, but its meaning is determined by the environment where the language was uttered.

Berns and Erickson in Komalasari, (2013) says of contextual learning is a concept of learning that helps learners relate subject matter content to real world situations; and motivate learners make connections between knowledge and its application in their lives as family members, citizens, and workers involved in the hard work that requires learning).

1. Jonhson (2011) identified eight characteristics of contextual teaching and learning, namely: Making meaningful connections (create meaningful relationships).
2. Doing significant work (doing important work).
3. Self-regulated learing (learn to regulate their own)
4. Collaborating (cooperation)
5. Critical and creative thinking (thinking critically and creatively)
6. Nurturing the individual (nurture people)
7. Reaching high standards (achieving a high standard)
8. Using authentic assessment (use of actual votes)
9. Using authentic assessment (conduct authentic assessment)

Collaborative learning or cooperative learning is often called also widely used in constructive approaches to learning.

Perkins in Yamin (2013) said that collaborative learning is learning that carried learners together, then solve the problem together anyway and not learn individually, this study shows the distribution of intelligence between the learners that one to the other leaners or vice versa during the collaborative learning process takes place. In fact, learning is very appropriate for learners to set them outside the classroom leading to shared responsibility, and they can strive together to achieve the learning objectives. While Discroll said learning also allows learners to see things from other people's perspective and not just from the point of view alone.

Constructivist theory says the learners learn by doing and learning is strongly influenced by the collaborative work. (Shelly, Cashman, Gunter & Gunter in Rezaei, 2003). However, true collaboration within schools require learning activities that are designed based on the principles of collaborative learning facilitated by technology where appropriate. The focus in the initial studies was conceptual learning. He observed that cooperation helps learners to think critically challenge each other's ideas and also test their own preconceptions.

Expository strategy is a learning strategy that emphasizes the verbal process of delivering material from a learner to a group of learners with the intention that learners can master the subject matter optimally. Killen in Sanjaya (2010) named this term strategy expository is direct learning strategies (direct instruction). Within this strategy the subject matter was presented directly by the learner. Learners are not required to locate the material. The subject matter seemed to have been so.

The Characteristics of Expository Learning Strategies: (1) expository strategy is done by delivering course material verbally. Verbally spoken means is a key tool in doing this strategy, therefore, often people identify with lectures; (2) usually the subject matter presented is a subject matter that is so, such as data or facts, certain concepts to be memorized so that does not require learners to think again; (3) the main purpose of learning is to master the subject

matter itself. That is, after the learning process ends learners are expected to understand correctly the way back can reveal material that has been described.

Expository strategy is a form of learning-oriented approach to learners (teacher centered approach). Say so, because in this strategy learner plays a very dominant. Through this strategy the learner deliver learning materials are structured in the hope of the subject matter presented it can be controlled with good learners. The main focus of this strategy is the academic skills (academic achievement) learners. The learning method to study was forms of strategy expository (Sanjaya, 2010).

Motivation can affect all phases of learning and learning performance. Theories of behavioral define motivation as an increase in the number or probability of occurrence of the behavior derived from repetition of behaviors as response to stimuli or as a result of strengthening. Behavior is supported and driven by a motivation enhanced by strengthening, or the response generated by the continued strengthening. Learner displays behavior that is supported and driven motivation because they had earlier strengthened to do it and because the amplifier-effective suports available (Schunk, 2012).

RESEARCH METHODS

A. The purpose of this study as follows:

1. Examine the significance of differences in learning outcomes on discourse dicis between groups of learners treated using contextual learning strategies and the type of collaborative learners group treated using expository teaching strategy.
2. To test the significance of differences in learning outcomes on discourse dicis between groups of learners with high achievement motivation and the group of learners with low achievement motivation.
3. Test the significance of the interaction between the learning strategies and achievement motivation on learning outcomes on discourse dicis.

B. Subject Research

This research was conducted in Language Study Program and Literature Indonesia in the first semester (V) Academic Year 2015/2016 which amounted to 76 people.

This research is a study that used a quasi-experimental research design. This study wanted to know and described is "Is there any influence of contextual learning strategy vs. expository type of collaborative and achievement motivation on learning outcomes discourse dicis.

RESULTS AND DISCUSSION

Based on the research results obtained, it can be described by using SPSS. The name of two treatment classes was class contextual learning and classroom-type collaborative expository. Hypothesis testing is done using ANOVA (analysis of variance). The results of testing the hypothesis were using Anova, as follows.

Descriptive Statistics

Table 1 Test Hypoteses Strategy Of Learning

Descriptive Statistics					
Dependent Variable: Achievement of learning					
Learning Strategy	groups Pretest and Posttest	Learn Motivation	Mean	Std. Deviation	N
expository	Posttest	High	73.5263	4.76324	38
		Total	73.5263	4.76324	38

	Pretest	Low	31.3810	4.10459	21
		High	38.0000	5.53399	17
		Total	34.3421	5.78571	38
	Total	Low	31.3810	4.10459	21
		High	62.5455	17.29571	55
		Total	53.9342	20.41263	76
Collaborative type	Posttest	High	79.3684	5.45954	38
		Total	79.3684	5.45954	38
	Pretest	Low	31.0000	5.12910	27
		High	42.4545	4.84487	11
		Total	34.3158	7.24888	38
	Total	Low	31.0000	5.12910	27
		High	71.0816	16.43274	49
		Total	56.8421	23.55479	76
Total	Posttest	High	76.4474	5.87740	76
		Total	76.4474	5.87740	76
	Pretest	Low	31.1667	4.66464	48
		High	39.7500	5.63471	28
		Total	34.3289	6.51437	76
	Total	Low	31.1667	4.66464	48
		High	66.5673	17.34950	104
		Total	55.3882	22.01506	152

Table 1. Descriptive Statistics Based on the above, the class treated contextual learning collaborative type with low achievement motivation found in the pretest mean value was 31.0000 and 39.7500 high achievement motivation. Meanwhile, after being given a post-test with low achievement motivation and high achievement motivation 31.1667 is 76.4474. From these data, it is after the application of contextual learning strategies on the type of collaborative learners are motivated under achievers is an increase of 66190. While motivated high achievers is 31.3736.

While grade expository treated with low achievement motivation found in the pretest mean value was 31.3810 and 38.0000 high achievement motivation. Meanwhile, after being given a post-test with low achievement motivation and high achievement motivation 31.3810 is 73.5263. From these data, it is after the application of expository strategy on learners who are highly motivated under achievers is an increase of 66 190, while motivated high achievers is 31.3736.

Based on the data and facts mentioned above, it can be said that the achievement motivation (high and low) come to influence learning outcomes on discourse dicis. The data can be seen at table 2 below.

Here is look at the table 2 below!

Tabel 2 Tests of Between-Subjects Effects

ANOVA ANALYSIS RESULTS TABLE TWO LINES Dependent Variable: Learning Outcomes					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	69486.589[a]	4	17371.647	690.636	.000
Intercept	337565.817	1	337565.817	13420.432	.000
Strategy	210.461	1	210.461	8.367	.004
Motivation	1459.457	1	1459.457	58.023	.000
Strategy * Motivasi	278.037	1	278.037	11.054	.001
Error	3697.510	147	25.153		

Total	539497.000	152			
Corrected Total	73184.099	151			
a. R Squared = .949 (Adjusted R Squared = .948)					

Based on Table 2 Tests of Between-Subjects Effects above, it can be stated that the f 8367> 0.5 with a significant level of 0.004 thus, it can be concluded that the type of collaborative learning strategies contextual superior to expository learning strategies.

CLOSING

A. Conclusion

The conclusion of this study is:

1. There is a difference in learning outcomes on discourse dicis between groups of learners who were treated using contextual learning strategy type of collaborative and group learners using expository teaching strategy. Based on the results of learning group of learners treated with collaborative type of contextual learning strategy is better than the group of learners treated expository strategy.
2. There are differences in learning outcomes on discourse dicis between groups of learners who have high achievement motivation and groups of learners who have low achievement motivation. Based on study results, the group of learners who have high achievement motivation is better than a group of learners who have low achievement motivation.
3. The existence of interaction between the learning strategies and achievement motivation on learning outcomes on discourse dicis.

B. Suggestions

The suggestions of this study are:

1. Strategy collaborative type of contextual learning is superior, than expository, it is necessary to pay attention to learners this strategy to improve the quality of the learning process to achieve the learning objectives.
2. Learning needs to continue to motivate learners, so that the energy can perform many unexpected things for learning that is being studied.
3. In a collaborative constructivist learning how teamwork is the best way to solve the problems of learning. In general, learners into learning resource for learners. This must change. Learners should be given the opportunity to seek and find what is to be learned in the environment in which they learn.

REFERENCES

Alwi, H. 2003. Indonesian Dictionary. Jakarta: Balai Library.

Darma, Y.A.D. 2014. Critical Discourse Analysis. in Multiperspective. Bandung: PT Refika Aditama.

Halliday, M.A.K. & Ruqaiya, H. 1992. Language, Context, and Text. Aspects of Language in Social Semiotics Views. (Translation: Asruddin B. Tou. Yogyakarta: Gadjah Mada University Press.

Abdulwahid, et al. 1994. Discourse Understanding and Relationships between Elements. Bandung: PT Eresco.

Johnson, E.B. 2011. Contextual Teaching and Learning. (Translation: Ibnu Setiawan). Bandung: Kaifa.

Kaartinen, S. & Kumpulaien, K. 2002. Collaborative Inquiry and the Construction of Explanations in the Learning of Science. Department of Educational Sciences and Teacher Education, University of Oulu, P.O. Box 2000, Learning and Instruction 12 (2002) 189-212

Karagiorgi, Y., & Symeou, L. 2005. Translating into Constructivism Instructional Design: Potential and Limitations. Educational Technology & Society, 8 (1), 17-27.

Keyser, W.M. 2000. Active Learning and Cooperative Learning: Understanding the Difference and Using both Styles Effectively. James C. Jernigan Library, Texas A & M University-Kingsville, Kingsville; Strategies Research 17 (2000) 35 ± 44

Komalasari, K. 2013. Contextual Learning Concepts and Applications. Bandung: PT Refika Aditama.

Reid, G. 2007. Motivating Learners in the Classroom: Ideas and Strategies. California: Paul Chapman Publishing.

Reigeluth, C.M. 1999. Instruction-Design Theories and Models Volume II. A New Paradigm of Instructional Theory. London: Lowrence Erlbaum Associates, Publishers.

Rezaei, A.R. 2003. An Integrated Approach to Collaborative Electronic Learning. JI. of Computers in Mathematics and Science Teaching 22 (1), 57-73

Sanjaya, W. 2010. Learning Strategy Process Oriented Education Standards. Jakarta: Prenada Media Group.

Santrock, J.W. 2013. Educational Psychology. (Translation: Tri Wibowo B.S.). Jakarta: Kencna Prenada Meia group.

Schunk, D.H. 2012. Learning Theoris An Educational Perspective (Theories of Learning, Education Perspective. (Translation: Eva Hamdiah, Rahmat Fajar), Yogyakarta: Student Library.

Slavin, R.E., 2011. Educational Psychology: Theory and Practice. (Educational Psychology: Theory and Practice). Volume 1. (Translation: Drs. Marianto Samosir, SH) Jakarta: PT index.

Slavin, R.E. 2011. Educational Psychology: Theory and Practice. (Educational Psychology: Theory and Practice). Volume 2. (Translation: Drs. Marianto Samosir, SH) Jakarta: PT index.

Sugiyono 2013. Educational Research Methods. Quantitative Approach, Qualitative and R & D.Bandung: Alfabeta.

Yamin, M. 2013. A New Paradigm Learning .. Jakarta: Reference.

Art Education for Building Leadership Character

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Abstract: Education has already been an essential need for everyone. There are three (3) main goals in education: development of knowledge, skills, and attitudes. Development of attitudes aims to create a certain character for the learners. From the beginning, art education given in schools is intended to provide a balance with the group-oriented education in the sharpening of reason and logic. Art education, aiming to smooth manners, shaping personality traits and have a high sense of the cultural values of a nation. This paper aims to describe the potential of arts education in fostering leadership and character building with a mix of Javanese concept of leadership in the puppet story. For that row will be described on (a) leadership character in Java, (b) the potential of arts education in developing character in this case through art, (c) the author's experience in developing leadership through art education (d) conclusions and recommendations.

Keywords: art education, art student functions, leadership character Java, graphics clip

In this era of the 21st century is to make human beings more intelligent by using the world digitization facility. All easily obtained instantaneously, well informed, knowledge of the positive to the negative impact. The negative impact of the decline marked by numerous national character, among others; rampant corruption, rampant terrorism, sexual harassment, child abuse and so forth. This is proven by the fact that there are in Indonesia is concerned about the lack of a national character that is in all people, both leaders of the nation, education, law enforcement officials, religious leaders, the group organizations or groups and so forth.

Based on the facts that exist in the Indonesian nation that is a crisis of leadership character, a prospective leader that have the appropriate character values and culture of Indonesia is needed. The formation of national character starts from an early age to provide a decent education for everyone. Education has a huge impact on human change, that there are three aspects, among others; can develop the knowledge, attitudes and skills. In practice, education in Indonesia has not fully developed these three aspects to make prospective leaders who have character. To develop a character that is one of them through arts education, which certainly has the potential to develop an attitude. Arts educations there are some subs such as visual arts, dance, music and the performing arts. In this discussion that are used to develop the character of leadership through art. It is thus necessary means, tools, methods, media to develop and leadership learning.

The following will explain some of the character of leadership that quoted from Javanese culture, explanation of the concept of the potential formation of character through art education and the alternative solutions offered by the author in shaping the character of leadership for learners.

CHARACTER LEADERSHIP OF JAVA

The leadership crisis in the nation makes a decrease in the dignity of the nation itself. According to Gardner, 1990): *'Leadership is the process of persuasion by which on individual*

(or leadership team) induces a group to pursue objectives held by the leader or shared by the leader or shared by the leader and his followers'. So a leader can be a person who can engage, motivate the group to achieve the same goal. This is in line with the three principles of leadership by Ki Hajar Dewantara namely; *Ing ngarsa sung tulada*, namely in front exemplify and give those to his men. *Ing madya mangun karsa* meaning intention in constructing the will or intention, leaders should fight alongside men. *Tut wuri Handayani* which means, from the rear provide a boost, a leader who invites men to commit themselves to develop their creativity and skills with a boost of motivation (Rusly, 2012).

Character of leadership that should be contained lived out in a person that is the characters 'Hasta Brata' in puppet story Ramayana. Hasta Brata is the character of the leadership in the ancient Javanese culture. Hasta Brata is the science of eight (feet) great nature. Leaders who master the science of Hasta Brata will be able to internalize the self (embodiment) into eight of the grand nature. In some literature also mentioned that eight properties of this nature represent a symbol of wisdom and greatness of the Creator, namely; the nature of the Earth, the nature of the Sun, Moon nature, and the nature of the ocean, star properties, wind properties, fire properties, and the properties of water. (Kompasiana.com, 2012). The leadership of the eighth character is quoted from the website kompasiana.com among others:

1. The nature of the Earth; is to provide a life for humans, animals and plants. In the present context, the nature of this Earth can be translated into the nature of man who likes to give attention to the poor and the weak. A leader who mastered the nature of the Earth will direct power to the welfare of the people and alleviate poverty.
2. Nature of the Sun; is a source of energy that gives strength to sustain life. The sun gives strength to the living things on earth. In the present context, a leader who mastered the nature of the Sun can provide inspiration and encouragement to people to resolve any problems encountered. Leaders who master the nature of the Sun is that he is ready to defend its people oppressed.
3. The nature of the Moon; is a source of light when night falls. Thus, the essence is the luminary Moon creatures of darkness on earth. In the present context, a leader who mastered the nature of the Moon is he capable of guiding and enlightening the people. Therefore, these leaders understand and practice the noble teachings contained in religion (religiosity) and uphold morality.
4. The nature of the ocean; is spacious and airy as a symbol of tolerance and breadth of the liver. In the present context, a leader who mastered the nature of the ocean will be able to accept criticism gracefully, even if it's ready to be given advice by his subordinates. He will not see who was speaking, but what was discussed. He will provide the time and is always open to accommodate complaints people.
5. Nature of Stars; is described the high position. Leaders who mastered star properties in the present context is a leader who has noble character that position (maqam) are honored and respected. In short, the people loved him while opponents feels bashful.
6. The nature of wind; is able to sign (infiltrate) in all places. The nature of wind in the repertoire of Javanese philosophy is interpreted as a form of rigor and prudence. In the present context the leaders in charge of the nature of wind is it is always measured speech (not the origin of the way), every word is always accompanied by arguments and include the data and facts. Thus the leader who mastered the nature of this wind will always check and recheck before you speak or make decisions.
7. Nature of Fire; is to burn anything, indiscriminately. Even iron could melt with fire. The realm of Javanese philosophy, Fire positive meaning as a symbol of the nature of the firm and straightforward. In the present context, a leader who mastered the nature of Fire is his deft and thorough in solving problems. Also always consistent and objective in enforcing

the rules, said indiscriminate and objectively and impartially. A leader who mastered the nature of fire, he can distinguish between the law enforcement and affection towards the family.

8. Nature of Water; in contrast to a more representative nature ocean area (field) of the liver, water has properties that are always looking for a low. Similarly, leaders who control the nature of water, it will always be humble and not arrogant moreover arbitrarily to its people.

From the eighth character is the character of leadership on leader who later became a charismatic leader, which is a leader in it has always been an example and respected by the community and his men. It is appropriate that disclosed Gerth and Mills (1991: 51-55) that: "*charisma is often described as an almost spiritual power or personality that gives an individual exceptional influence or authority over a large number of people. Such leaders gain influence because they often seem to offer a way out for people who are under-represented in some way. They become a figurehead, somebody who can offer solutions, somebody who has the answers".*

In accordance with the disclosed Iswachidah (2015: 2) Great leaders must have the principles of great leadership, no great nation without a great leader, and a great leader must have the character of a sturdy, strong personality, firm standpoint, and have the spirit of "*sepi ing pamrih rame ing gawe*", devoted to the interests of the people put aside personal interests and lower the 'ego' personal honest and sincere in devotion and temperament statesmanship.

EDUCATION THROUGH ART

Arts education can build the personality of a young leader from foster tolerance, good for others, mutual respect and be able to distinguish what is good and bad in accordance with the values of aesthetics (beauty). The values of beauty is human values that build the human being beautiful as nature. Those values are kindness, nobility, honesty, hard work, mutual cooperation, and other noble values (Institution, 2012: 3). Arts education is an education that is different from the others, which give priority to diversity as well as a neutralizer of all that diversity. In the opinion of Goldblatt (2006: 26) that "Art In These instances is a catalyst for penetrating worlds of difference, and offering them for public scrutiny, Gradually expanding traditional modes of understanding. Thus art education can bridge the diversity that exists in Indonesia from various indigenous, tribal and religious culture.

Ki Hajar Dewantara ideology (in Hadliansah & Julia, 2016: 2-3) gave the meaning of education in an effort to foster learners in terms of intellectual, emotional, and volitional which aims to educate the brain, smoothing the mind and nourish the body. Intellectual education refers to efforts to guide the students to become more intelligent cognitive understanding and reasoning so high on the phenomena of life in connection with science and technology. Education emotions serve to smooth the favor affectively respect of a sense of propriety, morality, beauty, and other psychiatric side-by-side. While the willingness of education refers to efforts to encourage students in the motor in order to want to try and make every effort for everything he needs in his life (Hadliansah & Julia, 2016: 3).

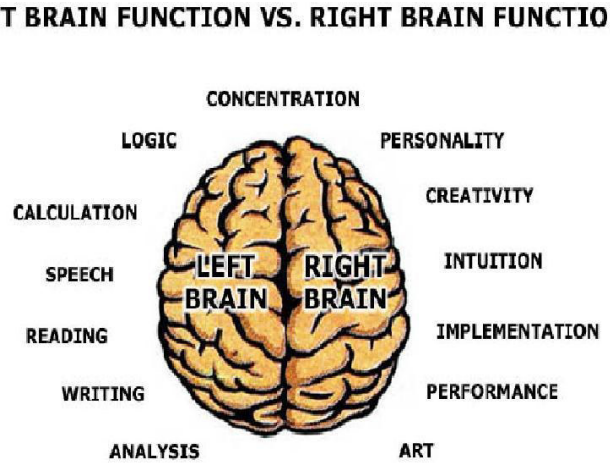

Figure 1: Brain Function (Source:

From the picture above has been proven that sustainable art with a personality that is equally in the right brain. Integrate with each other right brain personality. So that, the functions of art itself is very big influence on emotional control and the development of creativity. Research conducted by music educators Bennett Reimer (2004) explains that *makes an even more explicit link between music, mind, and feeling; he argues that recent research on brain function suggests that emotion is at the root of feeling, of learning, and of changes in the state of the body, because emotion serves a primary role in activating the brain and consciousness (Damasio, 1994).*

Art education consists of several branches including the visual arts, dance, music and the performing arts. In this case the proposed solution to form the character of leadership through one branch of art is art. The reason for choosing art is because according to the author's experience in shaping the character of leadership at the branch. Visual arts are divided into two groups: pure art and applied art. Applied art has many branches in accordance with its function is divided into two; craftsmanship and design. Craft art is a craft that is used in everyday life that has functional value and at the same time has a value of beauty. While many designs use technology in accordance with the changing times. Therefore, the branch taken in accordance with the present era (digital), the media used as the delivery of messages to establish the character of the leadership of the use of visual culture.

From the literature review above about eight characters leadership and functions of art education in the formation of these characters needs to be a method, apparatus, methods and media for leadership learning. The following will be discussed and explained about the solutions offered to shape the character of leadership in accordance with the author's experience.

DISCUSSION

To shape the character of leadership through art education that can be through teach comics, posters, graphics clips, games, animated films, and so forth. In accordance with the author's experience in teaching the leadership character is through graphic clip. The rationale for using the graphic clip because according to research conducted by Dr. Moeljadi Institution instructional media experts State University of Malang that chart clip is effective learning media use, practical, easy to make and can involve students.

Graph clip in question is a collection of images arranged in such a way by considering some aspects, through the stages according to the rules of making media that include: organizing the contents of the message, the message content management and content delivery

message. Selection of the proper image will affect the way the brain works in thinking, so that the set of images managed by the incorporation of music and motion affects the brain will quickly receive the message. Vice versa if the selection of images that are too overloaded, then the brain will not be able to receive messages to be delivered.

Graph clips are made in accordance with the formation of character of which was themed position of leadership among others: patient, honest, respectful, generous, self-confidence, responsibility and so forth.

Charting Clips Procedures

Making the clip in the graph through several stages, among others, to determine the theme, scenario-building, creation of the storyline, storyboards and final results will be used to leadership character learning.

The initial step in the manufacture of graphic clips determines the character theme of leadership in civic life one example being generous and mutual help among others. Furthermore, these scenarios and storyline that will be in the graphic clip there is a story related to the determination of the theme.

> *One example of the author's experience creating graphics clip of two children in Porong Sidoarjo, namely his brother became an itinerant salesman and his brother cake into goat herders and porters at the market. They work for the basic needs of the day. When the younger boy was selling then came a mother who gave him money. Then his brother was surprised to see the money that his younger brother. The brother asked, "Where did you get the money and then his brother?? replied that the money was a gift from someone else. After hearing the words of his brother, sister advised her sister spoke with said, "we seek money instead of giving to others, but rather than selling. This money should we give to people who are entitled to ". Then the younger boy obeys the words of his brother. They ended up giving the money had to grandmothers who desperately need.*

From the above scenario and storyline in the next step is storyboard creation. Storyboard is a step in making the design view, include pictures/images, sound and text to be displayed according to the message to be conveyed to the process of final settlement.

Figure 2: Display of two children, an older and younger brother

Here's a glimpse of some of the views of charting a clip about the above scenario to shape the character of leadership.

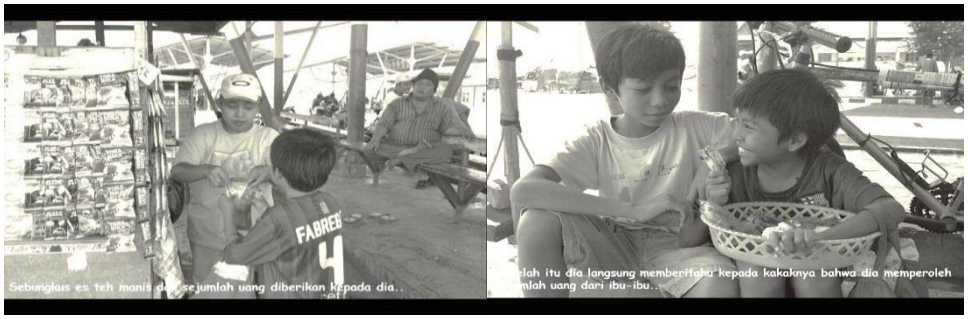

Figure 3: A Woman giving some money to the children, the elder advised his younger brother

Figure 4: The award money given to the poorer

From graphing clip above can take some attitudes include: mutual help among others, mutual empathy and sympathy. As well as, hard-working, patient, confident and grateful towards what was owned by us. Still trying to get better again accompanied by prayer to be a leader who really fit the expected nation nations, especially Indonesia.

Thus, learning through art education is one way to build leadership character that began early on to be implanted noble values of the nation in accordance as mentioned above about eight leadership character by Java that called the Hasta Brata.

CONCLUSION

Arts education is an education that is different, has its own characteristics that promote the values of local wisdom and character of the nation and preserve the national culture to develop creativity to shape the character of someone who later became leaders in accordance with the character of leadership according to the philosophy of Hasta Brata.

Through arts education, one of art by using charts clip is one effort in shaping the character of leadership as one manifestation of national character planting should be planted early. Expected to be embedded into adulthood and become leaders needed by this country, namely Indonesia.

This graph can be further developed in accordance with the theme of leadership character with a different look, for example with a cartoon version or versions of the other, so that the children are interested to see and read the messages to be delivered. Moreover, can applys the attitude that has been displayed on the graph the clip.

REFERENCES

Damasio, A. 1994. *Descartes' error: Emotion, reason, and the human brain*. New York, NY: Gosset/Putnam.

Gardner, J.W. 1990. *On Leadership*. New York: The Free Press.

Hadliansah, D.H. & Julia. 2016. *Menggali Ideologi Ki Hajar dalam Pendidikan Seni.* Artikel (p 1-6). (Online). (https://www.researchgate.net/publication/ 291957409), diakses 10 Desember 2016.

Iswachida. 2015. *Kepemimpinan Bupati, Prinsip Asta Brata, Sikap Kenegarawanan Kepemimpinan Modern.* Jurnal online (1-16). Malang: Universitas Negeri Malang.

Pranata, M. 2012. *Pemanfaatan Media Pembelajaran Pendidikan Seni Budaya (Buku Ajar Media Pembelajaran).* Malang: Universitas Negeri Malang.

Rusly, J. 2012. *3 Prinsip Dasar Kepemimpinan Ki Hajar Dewantara,* (Online) (http://www.kompasiana.com/1000hari/3-prinsip-dasar-kepemimpinan-ki-hajar-dewantara_551097fc813311373abc67bd), diakses 10 Desember 2016.

Simpaka. 2012. *Hasta Brata; Delapan SIfat Unggul Pemimpin*, (Online) (http://www.kompasiana.com/bem_simpaka/hasta-brata-delapan-sifat-unggul-pemimpin_550fe3a1a33311bf37ba7d7f), diakses 10 Desember 2016.

The Assessment of Students' Cognitive Conflict by Using Student's Cognitive Map in Solving Mathematics Problem

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Abstract. Knowing students' cognitive conflict when solving mathematical problems is important. We can explore some misconceptions and mistakes made by the students in constructing mathematical concepts. The aim of this study is to assess students' cognitive conflict by using the students' cognitive map. This is a qualitative study that conducted on one 6th grader student of SD Wahid Hasyim Malang. Based on our exploration by using students' cognitive map, it was found that the cognitive conflict occured as a result of conflict between the students' concept with facts/result of the concept.

Keywords : cognitive conflict, cognitive map

Talking about cognitive conflict, is not aimed to a violence or something like that, but rather on about how the occurence of opposing of hope, imbalance, dissonance and disagreement. It has been a lot of research about cognitive conflict, but based on our search results, none of them defines cognitive conflict specifically. According to Piaget's theory, cognitive conflict is identical to an imbalance in assimilation–accommodation process of knowledge. Students' difficulties in assimilating a new knowledge into the existing cognitive schemas can create the imbalance or disequilibrium and indicated as the conflict (Shahbari & Peled, 2014). Kwon (1989) defined cognitive conflict as a conflict between cognitive structure and environment, or a conflict between conceptions in cognitive structure. Lee & Kwon (2001) stated that cognitive conflict is a perceptual state in which a student has a different opinion between what is in the their cognitive structure to the environment or the information they obtained, or between different components such as concepts, beliefs, substructure, etc. The same opinions were also expressed by Lee & Yii (2012) that the cognitive conflict is a condition in which there are different components in someone's cognitive structure and the environment (external information). In this research, we define the cognitive conflict as an awareness about contradiction condition that indicate the occurrence of an imbalance in students' cognitive structure in construction process of mathematical knowledge or concept that created when newly acquired knowledge contradicts to students' prior knowledge.

Some previous studies tried to applied the cognitive conflict in learning instruction. Based on these studies, we know that the researchers had different point of view about the effect of cognitive conflict application in learning. Lee & Kwon (2001), Baser (2006), Akpinar, *et al*. (2009), Shahbari & Peled (2014) and Madu & Orji (2015) states that cognitive conflict-based learning is a good strategy to improve the understanding of students and may encourage the conceptual change. The effect of applying cognitive conflict in learning to facilitate the conceptual change was also discussed by Baser (2006). On his research, he found that students' understanding of heat and temperature concept was improved while the cognitive conflict based physics instruction was applied more than traditional physics instruction. On the same subject, Madu & Orji found that the level of understanding of heat and temperature was significantly dependent to the treatment. They recommended that cognitive conflict instruction should be

adopted by science teachers, educators, and authors and publishers of science books. Akpinar, Erol & Aydogdu (2009) found that the cognitive conflict based activities attracted the teachers' attention and helped them get motivated towards the lesson. While Shahbari & Peled (2014) said that conceptual change and better understanding of the changing reference in fraction calculations was happened to the group of students who teached by using the cognitive conflict. On the other hand, Dreyfus, Jungwirth & Eliovitch (1990), Elizabeth & Galloway (1996), Dekkers & Thijs (1998) argued that even though students' ideas can be confronted with contradictory information through instruction, students frequently do not recognize conflict and sometimes the contardictory information can afect students negatively. So, according to them, the cognitive conflict strategies do not consistently lead to conceptual change.

These different point of views about the impact of the cognitive conflict instruction indicated that the imbalance as the effect of the cognitive conflict not only could bring positive affect but also affected students negatively. Cognitive conflict has constructive, destructive or meaningless potentials (Lee & Kwon, 2001). The destructive or negative effect of cognitive conflict may be the emergence of a negative disposition such as fear, anxiety, and even excessive frustration. Therefore, we think it is necessary to know the cognitive conflict that happened in students' cognitive structure. The reason is that the earlier cognitive conflict studies just discussing about the effectiveness of cognitive conflict in order to bring up the conceptual change. So, the question is how to measure students' cognitive conflicts.

Many researchers has introduced their ways to measure students' cognitive conflict. Lee & Kwon (2001) present The Survey Cards to measure students' level of cognitive conflict. These cards are consist of Four cards, they are recognition of anomaly card, interest card, anxiety card, and reappraisal of cognitive conflict situation card. Lee, *et.al* (2003) used The Cognitive Conflict Level Test to measure cognitive conflict that happened to their subjects. On 2008, Zaskis & Chernoff used the bridging examples to expose their subject's cognitive conflict. They use the counter example as the bridging examples in doing their research. The other way to invoke students' cognitive conflict was introduced by Campitelli & Gerrans on 2014, and known as The Cognitive Reflection Test. There is also Lee & Kwon (2001) who made some gestures that shown by the students as a sign of the onset of cognitive conflict. In this study, we used a cognitive map to measure cognitive conflict that happens to students.

Cognitive mapping is defined as the process that consist of a series of psychological changes made by an individual, and the input of this map include the memory, information code about the connection between the events in daily life (Jacobson, 1998). Pena, Sossa & Gutierrez (2008) define the cognitive map as a tool that gives away the entities of the issue of study. Moreover, according to Pena, Sossa & Gutierrez (2008), cognitive maps bring out the causal phenomena as cause-effect relationships between concepts. According to all researchers, events that occur in someone's thinking structure can be described using a cognitive map. The input of this map was a sequence of someone's psychological changes, their changes in thinking structure, including everything related to their previous knowledge and all activities that are done in a process. So, cognitive maps in this research is defined as a direct connected graph, where the vertex on the graph represents the stages performed by the students or students' concept, while the edge represent the connectivity between the stages and students' concepts. So, the purpose of this research is to measure the student's cognitive conflicts by using student's cognitive maps.

METHODS

Research Framework

This is the qualitative descriptive research that describe how cognitive conflict occurs while student try to solve the geometry problem. This conflict will be investigated by using student's cognitive map while solving rectangle problem. Interview method that used to explore students' cognitive conflict in this research was a think aloud method. The interview process is based on student's worksheet and student's cognitive map while solving the given problem. We conducted 2 kinds of interview to our subject in this research, namely preliminary interview and advance interview. The first kind of interview was to ensure that we can use her spider's web as her cognitive map. Then the last kind of interview was conducted to investigate subject's cognitive conflict. As long as the interview process, we noticed and noted all gesture that disclosed by the subject, which shows the characteristics of the occurence of the cognitive conflict either the body movement that demonstrated by the subject or unusual paraphrases that spoken by the subject. These cues are used by researchers to explore the conflict that occur in subject cognitive structure. Then the result of these interviews are analyzed and outlined in this paper.

Subject and Research Tools

Responden in the first step of this study were 23 sixth-grade student of SD Wahid Hasyim Malang. These 23 student were asked to solve the given problem. The given problem can be seen in Figure 1.

> Mr. Toni has a rectangular-shaped piece of land measuring $160m \ x \ 120m$. On top of the land will be made 4 pieces cages that the fences are made of wire. If the cage to be made a triangular, then specify the size of each cage to be made and how long is the wire that will be used to make the enclosure?

Figure 1: The Given Problem

Next, we made the spider's web of the given problem, and it was figured in Figure 2

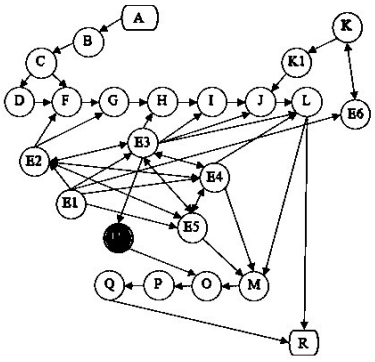

Figure 2: The Spider's Web of The Given Problem

Form the test, we found one student to be our subject. She was Ayu. She was selected based on our research criteria that student who detected the largest incorrect answer while solving the given problem will chosen as the subject, based on the comparison result between the problem's spider's web and subject's spider's web.

Data Collection

All students' activities as long as the test process were recorded. We were made a note along the test process. These records and notes will be compared to students' work. Based on these comparation, we choose Ayu as the subject. Then, Ayu were interviewed by using think aloud method.

Procedure

Firstly, we prepared the problem sheet about the rectangle. After that, we asked the respondent to solve the given problem and taking the field notes as long as the test. Thirdly, we analyzed respondent's answer sheet and field notes. Next, we choosed the suitable subject based on the desirable criteria then identified subject's cognitive conflict. Finally, we analyzed the research findings.

In this research, we had six steps to asses subject's cognitive conflict by using cognitive map. Firstly we created a spider's web based on the elected students' work. Secondly, we identified the error of the subject. Thirdly, we confronted it to the spider's web of the problem structure. Fourthly, we conducted a limited preliminary interview to make a cognitive map. Fiftly, by checking any change of the truth of the answers, we indentified the cognitive conflict. We assumed this as the emergence of the cognitive conflict. Finally, we conducted in-depth interviews about the cognitive conflict that maybe occur in subject's mind, and made the conflict map. (van Someren, M.W., Barnard, Y.F., Sandberg, J.A.C., 1994)

RESULT AND DISCUSSION

Test Result

The first identification about the occurrence of the cognitive conflict to this subject is detected while she is doing the given problem. While solving the given problem, frequently she looks wiggling and playing her pencil and pen, tapping the table by using her pen, scratching her head, and rubbing her nose. This was strengthened by the fact that she identified as the most who made incorrectly answer. While completing the given problem, she shows her seriousness and trying to solve the given problem. On her answer sheet, she wrote that she use $2 \times \ p + l$ as the formula to find the area of the rectangle. Then subject calculate the land area by using that formula, and she found $360m$ as the land area. Then to calculate the area of each cage, she just divide $360m$ to four and obtained the area of the each cage was $90m$. Finally, she wrote that the length of the wire that will be used to make the cage is $30m$. Subject's answer sheet can be seen on Figure 3 below.

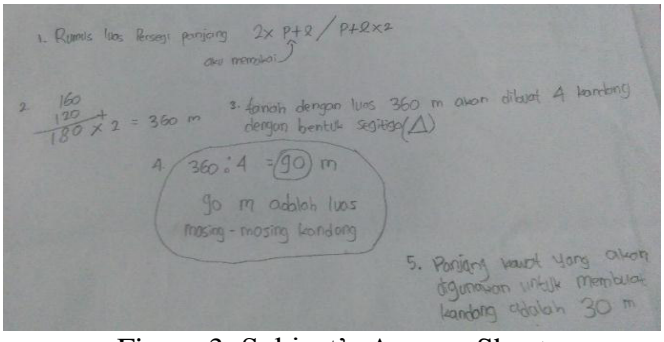

Figure 3: Subject's Answer Sheet

Based on her answer sheet, we assume three things. First, subject had a conception about the rectangle. These assumptions are based on the opinion that the she can drawing the $160m \times 120m$ rectangle. Second, subject had a conception about the triangle. This is based on the consideration that she can describe the triangular area as a form of the cage in the rectangular she made before. The last, subject had a disoriented about the area and the circumference of the rectangle. Then based on these, we made her spider's web as figured in figure 4.

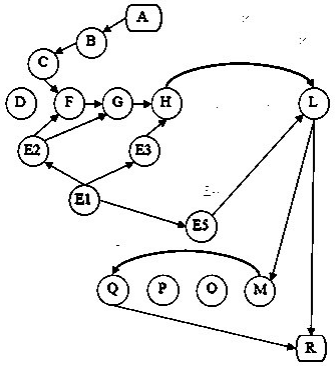

Figure 4: Subject's Spider's Web

We compare this spider's web to the problem spider's web. We found that there are many loosing connectivity in subject's spider's web. We used this spider's web as the basis of interview arranging to make the cognitive map, to explore subject's cognitive conflict by using the cognitive map and to create the conflict map.

Inverview Result

The preliminary interview process started by asking subject about her understating of the given problem. Form this interviewing process, we detected that she know about the sense of the problem. Next, we try to explore her basic supportive concept in solving the problem, and we found that actually subject had enough sopportive concept to solve the given problem. It can be seen from this part of coversation.

Researchers (R) : *What do you think about this problem? what should we do to solve this?*
Subject (S) : *Firstly, I must drawn Mr. Toni's land (drawing a rectangle) It was like the rectangle. So I'll draw the rectangle.*
R : *Hmmm, do you know what the rectangle is?*
S : *Hmmm.... this is rectangle (pointing to her picture)*
R : *Can you explain your idea about rectangle?*
S : *Hmmm... (keep silent for awhile, then continue...) well, this is rectangle (pointing again to her pict). All rectangle has four edges, four vertices, four angles, and the opposite edges are equal.*

From this part of conversation, we claim that subject has a little concept about rectangle.

R : *OK, next?*
S : *This problem said that Mr. Toni want to make a cage on the top of his land. Because there was 4 cages to be made by Mr. Toni, so, it must be like this (drawing two diagonal of the rectangle). We can see here that we find 4 cages, and the shape of the cage were triangle.*
R : *OK, what do you know about the triangle?*
S : *This is triangle. It can be made from the rectangle, like this pict (pointing to her pict), the triangle has three edges, three vertices, and three angles. That was the triangle.*

From this part, we claim that subject has a little concept about triangle.

R : *OK, what next?*
S : *I think it's enough.*
R : *What about the size?*
S : *Oh, (write the size on her picture). This is.*
R : *OK, what do you know to answer this problem?*
S : *Yes of course. It was very simple. Firstly I must count the wide of the rectangle. We know that there were two formula to count it. (write the formula) They are* $2 \times p + l$ *or* $p + l \times 2$. *I choose this one (pointing to* $2 \times p + l$*).*

From this part of the conversation, we can see that subject failed her rectangle concept so we assume that there was a misconception about the wide of the rectangle. It maybe caused by the incompleteness in her rectangle concept.

S : *The size of the land was* $160\ x\ 120$ *meters (write on her paper) so the wide of the land was* $360\ m$.

Subject made a mistake in counting $160 + 120$.

S : *Because there were four same cages in the land so I gotta divide it by 4, and I found the wide of each cage was* $90\ m$.

Subject tried to make a connection between the rectangle and the triangle.

S : *Finally because the triangle has three edges, so I should divide the wide of each cage by 3 to count the circumference of the cage. So the circumference of each cage was* 30

From this small portion of the conversation, we know that subject failed her conception about tringle. She made a wrong connection betwen the wide of the triangle and the circumference of the triangle. So it must be a misconception there.

We conclude some information from the preliminary interview. They are:

1. Subject knew about the rectangle and the triangle
2. Subject faced misconception about the wide and the circumference of the rectangle
3. Subject tried to make a connection between rectangle and triangle
4. Subject tried to make a connection between the wide and the circumference of the triangle
5. Subject faced misconception about the wide of the triangle and the circumference of the triangle
6. Subject untidy in doing his work
7. Subject didn't know about the phytagoras theorem
8. Subject can't applied her knowledge about the rectangle and triangle to solve the given problem

Based on this preliminary interview and the conclusion of the preliminary interview, we made subject's cognitive conflict as figured in Figure 5.

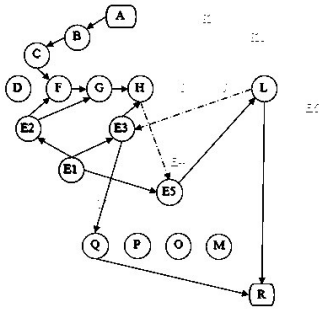

Figure 5: Subject's Cognitive Map

Figure 4 and Figure 5 gives us information that there were so much loosing concept in subject's thinking structure so that this subject made many mistake while doing her given problem. according to these, we conducted in-depth interviews about the cognitive conflict that maybe occurs in subject's mind by using the cognitive map. We kept our focus on subject's mistake and the misconception while doing her work in previous stage to explore her cognitive conflict. The result of this in-depth interview shows that subject faced her cognitive conflict in some part in her concept. They can be seen from these part of conversation along the in-depth interview. R : OK, still remember about this problem? S:yeah,

R : On our previous interview, you drawn a rectangle as the shape of the land, and said that all rectangle had four edges, four vertices, four angles, and the opposite edges were equal. Wasn't it?
S : (Nodding her head)
R : Could you explain your thought about your statement?
S : (Drawing a rectangle and pointing her pict) this is a rectangle. It has four edges (pointing each edges like made a line), four vertices (pointing each vertices), four angles (pointing each angles), and the same size of opposite edges (pointing to the same size of edges). That's all.
R : What bout this part? Is it a rectangle? (pointing to the area that bounded by four edges outside)
S : No, a rectangle just as I told you before.

We identified this case as the potential conflict. Incompleteness in subject concept may be responsible for the occurence of her cognitive conflict. So, we try to continuing to trace her cognitive conflict.

R : OK, can you show me another things that shaped like the rectangle?
S : Hmmm... yes of course, this table.
R : Which part of this table as a rectangle?
S : (pointing each side of the table like made a line)
R : OK, do you know how to count the area and the circumference of this rectangle?
S : Yes, the formula of the rectangle was $2 \times p + l$ or $p + l \times 2$. *hmmm yes mmm yes..*

It was clearly form this part of the conversation that the subject began to suspect the existence of any discrepancy to her initial concept. Subject observably began to hesitate her beliefs to her concept. According to Lee & Kwon (2001), student's hesitancy to their beliefs indicate the occurrence of cognitive conflict.

R : OK....
S : Wait a minute mam... (kept in silent for awhile, look like thinking something) (pointing to her pict) this is the length and this is the breadth. Two length and two breadth, so the area of the rectangle is the sum both of them. The circumference... the circumference... hmmm (kept silent for awhile and look like thinking something)
R : Anything else?
S : Mmm... be patient mam... I think something strange here mam. Give me a time to think about this... this is the rectangle (pointing the side of the rectangle and show a motion like making a line along the side of the rectangle)

Subject looked like thinking hardly. Her concept about rectangle was contrary to her idea about the area of the rectangle. Subject's concept about rectangle was not intact. This incompleteness can be the potential conflict in her cognitive structure. Subject's statement "I think something strange here mam" indicate that she was still in her conflict. Lee & Kwon

(2001) stated that student's conscious thought to the peculiarities indicate the occurrence of the conflict.

S : This is look strange mam. I just remember that there was another formula for rectangle, (wrote) $p \times l$*. but what did the function? was it to count the circumference? Or the wide.*

S : hmmm, I give up mam, I can't find the answer. Aren't they have a relationship? Hmm I don't think so.

Subject has 2 schemata in her mind about rectangle formula, and there were $2 \times p + l$ or $p + l \times 2$ and $p \times l$. She felt confuse about this. She can't assimilate her schema about the sense of the rectangle to her schemata about the formulas of the rectangle. One reason of subject's inability to assimilate her schemata was her incompleteness schemata. As a result, subject faced her cognitive conflict. She had been in conflict, and it was between her concept about the area and the circumference of the rectangle and the sense of the rectangle.

R : OK, what do you think about this one (pointing to her answer sheet as shown in Figure 6 below)

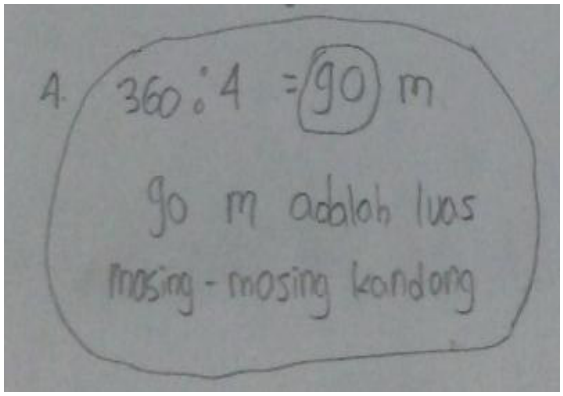

Figure 6: Subject's Answer Sheet

S : Oh, we know before that the area of the rectangle was $360m$*. Because of the cage on the land was a triangle, so we can found four cages on the land. Then it was easily to find the area of each cage. Just divide the area of the rectangle to four then we can found that the area of each cage was* $90m$*. Hmmm...*

S : Wait a moment mam... I think it was a wrong answer mam.

S : I know there was something queer to my understating of rectangle, but I don't know how should it be and what the correct answer is

R : OK, how long the wire will be used to make the cage, do you think?

S : hmm we know that a rectangle has three edges, and because the size of each cage was $90\ m$*, so we can count the length of the wire that will be used to make the cage.*

S : The length can be calculate by divide $90\ m$ *to three, and we found the length of the wire was* $30\ m$

S : But mam, is that true? It was strange mam.

Subject still in her conflict, she failed to make a better situation to construct her schemata about rectangle. Based on this situation, we made subject's conflict map as figured in Figure 7.

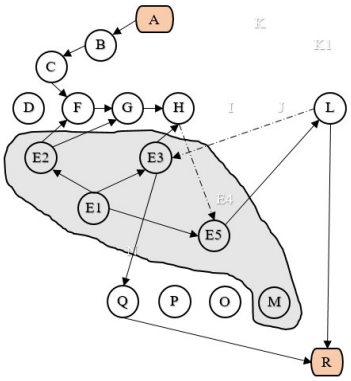

Figure 7: Student's Conflict Map

Lee, Kwon, Park, Kim, Kwon, Park (2003) stated that there was three stages in cognitive conflict model proses. They are preliminary stage, conflict stage, and resolution stage. In this research, we just investigate subject's conflict with out any intervention and with out any efforts to investigate her resolution stage.

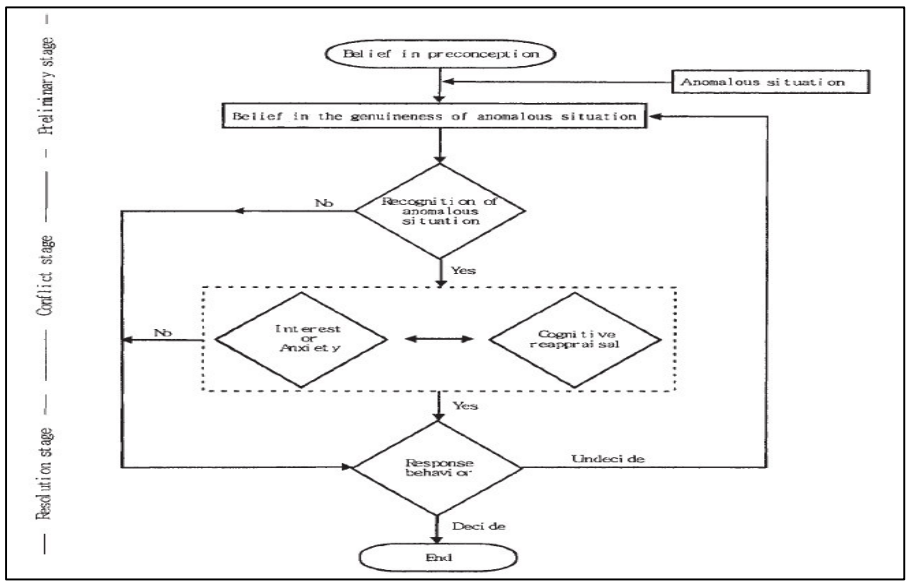

Figure 8: Cognitive Conflict Model Process (Lee, Kwon, Park, Kim, Kwon, Park, 2003)
Students' behaviour during the stages of the conflict can be described in Figure 9.

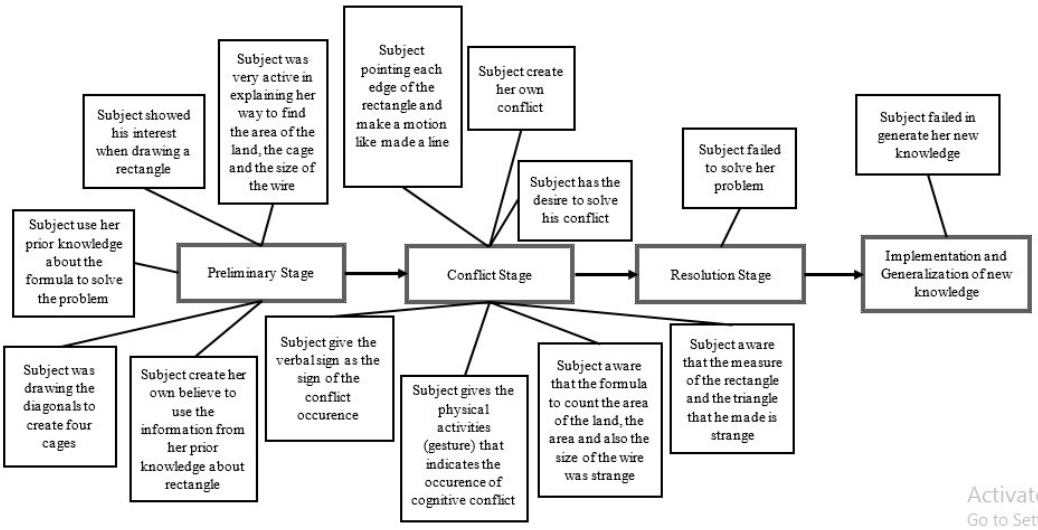

Figure 9: Subject's Diagram of Cognitive Conflict and The Activities in Each Conflict Stages

CONCLUSSION

Subject's schemata about the basic concept to solve the problem was incomplete. She can't use them while solving the given problem. Cognitive conflicts experienced by the subject is due to the contradiction between her incomplete concept. Cognitive conflicts experienced by the subject is the internal conflict that arising from the existence of the subject's inability to connect (mis-connection) and to rearrange her own concepts. There were concept smithereens fenomena that alleged as the trigger of subject's cognitive conflict. In this research, subject failed to resolve her conflict and the impact is she failed to generate her new knowledge. (Limon, 2001) (Dekkers, P. J. J. M., & Thijs G. D., 1998) (Leo, E. L. & Galloway, D., 1996)

REFERENCES

Akpinar, E., Erol, D., Aydogdu, B. 2009. The Role of Cognitive Conflict in Constructivist Theory : An Implementation Aimed at Science Teachers. *Procedia Social and Behavioral Science*, 2402-2407.

Baser, M. 2006. Fostering Conceptual Change By Cognitive Conflict Based Instruction on Students' Understanding of Heat and Temperature Concepts. *Eurasia Journal of Mathematics, Science and Technology Education, 2, Number 2*.

Campitelli, G., and Gerrans, P. 2014. Does The Cognitive Reflection Test Measure Cognitive Reflection? A Mathematical Modelling Approach. *Memori Cognitive, 42*, 434-447.

Dekkers, P.J.J.M., & Thijs G.D. 1998. Making Productive Use of Students' Initial Conceptions in Developing the Concept of Force. *Science Education, 82*, 31-51.

Dreyfus, A., Jungwirth, E., & Eliovitch, R. 1990. Applying The "Cognitive Conflict" Strategy for Conceptual Change - Some Implications, Difficulties, and Problems. *Science Education, 74(5)*, 555-569.

Jacobson, R.D. 1998. Cognitive Mapping Without Sight: Four Preliminary Studies of Spatial Learning. *Journal of Environmental Psychology, 18*, 289-305.

Kang, H., Scharmann, L.C., Kang, S., Noh, T. 2010. Cognitive Conflict and Situational Interest as Factors Influencing Conceptual Change. *International Journal of Environmental & Science Education, 5(4)*, 383-405.

Lee, G. & Kwon, J. 2001. What Do We Know about Students' Cognitive Conflict in Science Classroom: A Theoretical Model of Cognitive Conflict Process. *Proceedings of the Annual Meeting of the Association for The Education of Teachers in Science.* Costa Mesa, CA: ERIC.

Lee, G., Kwon, J., Park, S.S., Kim, J.W., Kwon, H.G., Park, H.K. 2003. Development of an Instrument for Measuring Cognitive Conflict in Secondary-Level Science Classes. *Journal of Research in Science Teaching, 40(6)*, 585-603.

Leo, E.L. & Galloway, D. 1996. Conceptual Links Between Cognitive Acceleration Through Science Education and Motivational Style: a Critique of Adey and Shayer Conflict. *International Journal of Science Education, 18(1)*, 35-49.

Limon, M. 2001. On The Cognitive Conflict as an Instructional Strategy for Conceptual Change: a Critical Appraisal. *Learning and Instruction, 11*, 357-380.

Madu, B. C. and Orji, E. 2015. Effects of Cognitive Conflict Instructional Strategy on Students' Conceptual Change in Temperature and Heat. *Sage*, 1-9.

Pena, A., Sossa, H., & Gutierrez, A. 2007. Cognitive Maps: an Overview and Their Application for Student Modelling. *Computacion y Sistemas, 10(3)*, 230-250.

Shahbari, J.A., & Peled, I. 2014. Resolving Cognitive Conflict in A Realistic Situation With Modeling Characteristics: Coping With A Changing Reference in Fractions. *International Journal of Science and Mathematics Education*.

Van Someren, M.W., Barnard, Y.F., Sandberg, J.A.C. 1994. *The Think Aloud Method, A Practical Guide to Modelling Cognitive Processes.* London: Academic Press.

Zazkis, R. & Chernoff, E.J. 2008. What Makes a Counterexample Exemplary? *Educational Studies Mathematics, 68*, 195-208.

Towards of Learing Program Orientation on Local Culture of Tana AI People

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Abstract: One of the uniquenity that are owned by various ethnic groups in Indonesia is the identity of the various etnit itself. Without the value of identity, life in society takes place not balanced and not harmonis. The purpose this of scientific writing is to identify the human dignity values of the Tana Ai people. These values are captured from daily life activities of the Tana Ai people. The method wgich is used in scientific writing is descriptive method. Data acquisition reference data sourced from primary and secondary data, obtained through literature, and direct experiences in the field. This data is then processed and described in the form of a scientific paper to show how a form of learning-oriented local people on culture Tana Ai. The results obtained through the writing of this paper is that the courses are given at school is no longer a central program implemented in the regions but is any program that has been integrated with local materials to avoid the alienation of learners with their own culture. Here the children assisted to acquire a wide range of modern knowledge but not lost their identity.

Keywords: learning, local culture, identity.

Learning and thinking person or ethnic group in the nation even today this is an interesting theme to be studied and studied scientifically. The aspiration of collectivization action was expressed in various form of human-human behavior that must be learned. In line with this thinking, responsibility sociality in order to grow and develop a sense bathinia values with more depth assessment of the demands of reason, faith, love, and human talent.

The customs of learning and culture tradition, tendency to favor value sense is conjuction, with the collective commitment of tribal tradition, underestimates the sense that actual power has become the foundation of the Tana-ai-Sikka, Nusa Tenggara Timur (NTT) since past. Now, in the era of the all dominated by a sense which is slowly shaping identity, undoubtedly to reap the benefits of the levels of tradition, while leaving or distort the values that have been worn, to move on to the virtues of the new, in the follow-real and specific expectations , (Ande, 2005).

The role of action of any related values, norms, acts, behaviors, beliefs, words or anything that is born out of the perception of the inner joint, is a construction appearances, or personal responses of human ancestors, which subsequently became the benchmark behavior neighbor and downed from one generation to the next (Ozias, 1990). They are figures tribes contributor to all indigenous tradition tribal condition that meaning, and is also still highly functional in every activity of life characterized by the Tana-Ai people such as: the things that are physically and mentally, including the desire for protection, security, peace, family ties, custom ties, religious ties, and the psychological bond.

Tana-Ai people in everyday life are always thinking, living and acting social collectives. They did not have an abstract sense of collective social. But of idioms and native way of life can be concluded that the Tana-Ai thinking and social learning collective, harmonious and mystical, symbolic and the moral and religious thinking.

The goals of Tana Ai people are thinking collectively in social learning, harmony-mystical, symbolic and morality and religious thinking is the social interest rate. The families and tribes are the norm determinant of life, symbolized by tradition. This means that all behavior and human actions more directed to the common interest, namely to ensure the unity and harmony as well as the continuity of fraternity. In addition, to acquire facilities in various businesses and to promote strength in the face of all kinds of interventions that disturbs the peacefulness of public. The formation of various norms, the moral law as the foundation of society deontology of Tana-Ai people is a result of learning how to think of social collectives. By its influence, cooperation between tribal members guaranteed, personal isolation can be avoided and adjustments and inter-tribal pemesraan strengthened, so every competition and conflict deprived, and if it happens, is easily solved for creating social harmony.

This study will be presented scientific work practices of indigenous life and way of thinking in the sphere of the life of the Tana-Ai people based on tradition. Thus it is no exaggeration in the scientific study of the ethical dimension of researchers observe and EMIC "Local Culture-Based Learning" which is still maintained until now.

METHOD

The research is an anthropological study of inductive education by relying on existing or understands the meaning behind the phenomenon is described in detail on the identity or the identity of ethnic Tana-Ai. It is also an educational research for anthropology research results relating to ethnic Tana-Ai can be utilized for the development of local curriculum materials in schools. The study also deals with specific ethnic; it is the most suitable method in this research is the method of ethnography.

Ethnography emphasizes inquiry into the socio-cultural perspective of the "natives or people in". In this case the task of researchers is to try to interpret and understand the behavior patterns and forms of communication, members of a community, (Littlejohn, 1996). Ethnographic methods are suitable to describe the culture of knowledge of a particular ethnic, Werner and Schoepfle, 1987. Meanwhile, Geertz 1973: 5 emphasize on ethnography as follows, if you want to understand what ascience is, you should look in the first instance not as its theories or its findings, and certainly not at what its apologists say about its; you should look at what the pactioners of it do ... in anthropology, or anyway social anthropology, what the practioners do is ethnography. And Spradley, 1980: 3 states that ethnographuc fieldwork is the hallmark of cultuiralanthropology. The hallmark of this ethnographic field research methods are: (1) holistic-integrative, (2) Thick description, and (3) qualitative analysis in order to get a native's point of view. Thus, the data collection techniques which be used in the form of participatory observation and open and in-depth interviews.

Application of these principles make the researchers were able to analyze the data from the perspective of those surveyed and not from his own perspective. It aims to give an understanding of the response to the existence of the human individual in an experience that is understood in interaction. On the other hand, the study sought to investigate, analyze patterns of social interaction and cultural knowledge-Ai Tana ethnic communities in Sikka. In this context the Tana-Ai people is the subject as well as the research object. All the facts, concepts, principles, rules, laws of education and learning of Tana-Ai found in the field and ethnographic studies revealed through the phenomenological perspective is then interpreted, described and analyzed in a comprehensive manner. Bogdan and Biklen, (in Moleong, 2005) state that the qualitative data analysis is an attempt to organize the data, sorted them into units that can be managed, synthesize, search and find patterns, find what is important and what is learned, and decide what can be told to others. The data analyzed comes from observation, and interview.

The data is then transcribed, edited and compiled on the basis of the value category that appears, using domain analysis techniques.

DISCUSSION

The results of this research have been presented and analyzed which are the usual things to do in the practice of the daily life of Tana Ai people. Analysis of the asepcts under study has identified a range of values that always comes up is the concept of character education value interlocking with the activities of daily living Tana Ai person in the home, the community and at school. Those values include: (1) religious values, (2) the value of harmony, (3) the value of hard work, (4) the value of moral ethical, (5) the aesthetic value, (6) the economic value, (7) the value of love, (8) educational value, (9) democratic values, (10) the value of responsibility, (11) social, (12) the value of the struggle, (13) the value of togetherness, and, (14) the value of justice. These values underlie the activities in various areas of the lives of Tana Ai. In other words, those values is the value of the identity or identities on Indonesia that became the basis for the harmony of life in local and national scale, both with fellow human beings, the environment, the ancestors, and the Most High.

These values contrast with the values introduced through school activities such as kompotitif values, individualism, materialism and consumerism that actual values are not typical Indonesiaan. Therefore the findings in this study are in accordance with the opinion proffered by experts on cross-cultural studies, such as thaman (1990), Harris (1984); Gegeo & Gegeo (1991); and Teasdale (1990). In general, they found niai values are not universal for various ethnic groups who inhabit this earth, for example, the value of love, the value of unity with nature, people and the land. In the research findings were seen with details that school children (golden generation) never again feel respect for local knowledge and the consequences for the local authorities that the parents and the elders because they had never been introduced with value-niai own culture, and otherwise is contrary to the findings of other experts such as Foster (1987); Levin (1987); and Winkel (1987) that prioritizes the values kompotitif, individualist, materialist should be played by the school for the sake of economic progress the actual sale of these values is not the identity of the value of Indonesia including the Tana Ai itself. The values are introduced from outside the cultural contacts that is not uncommon will appear tossing culture orculture shock is the condition of a person or community mental shock when experiencing a delay in receiving foreign cultures that came suddenly. Also there is an imbalance of culture (culture leg), namely the existence of inequality one of the elements of other cultures has changed. This is where the importance of the role of the local culture as the identity of the national culture.

The consequences are further study based on the findings of this study is that there is a difference between the value of Tana Ai lived in a society with values that are introduced through the schools that are not a core values. As a result he said was once a school and family remain mengindakan or typical values used in everyday practice, then sooner or later the graduates of the school in this region (the golden generation) will be alienated and marginalized from their own identity. As a solution to avoid more severe consequences then the typical values are the identity of the Tana Ai should be incorporated into the practice of teaching and learning (learning) daily in the school and community and family.

How and or strategies are considered appropriate to combine the values of identity of the Tana Ai into teaching and learning activities in schools, communities and families is to develop all the views and theories of education are important elements derived from indigenous culture of the community and Indonesian nation in particular and society in different parts of the world in general. In addition to developing also technologists study seeks to improve the quality of

the quantity of material content and implementation process of the pattern or model of learning in the Earth Indonesia, which is the hallmark of the personality of the peoples of Indonesia in the practice of everyday life to the development of national education in the era of advanced science, technology, arts and culture (Ipteksbud) in the days to come, lived out in the context of the values of national identity. Thus learners (golden generation) will be trained to become modern without losing its own identity.

The process of innovation (renewal) study conducted by the technologist will likely be more successful when supported by all the education component families, communities and schools. Therefore, every innovation needs to be communicated to the users of educational services on the opportunities that have been planned and agreed. Educational services so that users know and realize that what you do in school is a continuation of education at home and in the community. When the users of educational services do this mean that during this discontinuity exists between the school and home education and society can be bridged. This continuity provides an opportunity for innovation effort is successful. For the local culture is an asset (treasures) the nation's culture has also implemented educational pattern matching and according to the types of alternative education, the education of creative and productive. This fact is reflected in the results of studies showing that: (1) the use of the essential elements (character values) in the life of society as a learning resource for the community itself, (2) development of exercise done in stages to local culture as a means of character values education, (3) recognition of the dignity of humanity in implementing the local leadership of Tana Ai, (4) implement democracy in learning from and by the people for the people in the principles of togetherness, (5) the application of penalties (pire) and tradition-woga WUA taa lire as the enforcement of rights and duties of media in the lives of Tana Ai people, (6) create value harmony with each other, the environment, the ancestors, and the Most High for the sake of the balance of life and community life Tana Ai people, (7) moral education Tana Ai ethical for society in the form of poems / songs and expression as well as local full story simbolistis which leads to a sense of pride and shame, but in a democratic atmosphere, harmonious and tolerant, (8) inculcate a lifelong love of parents to children. (9) inculcate the teachings of the original religious moral values Tana Ai people, (10) embed learning model of practical training method tiered according to the sex through play activities, tells a story, and singing. These activities usually start from the things that are the micro to the macro.

Based on the principle the background of these findings actually want to show that the archipelago has had a local knowledge, local technology, local arts and local system that caused the "survival", which gives an opportunity to the Indonesian people who fall in colonization became risen independence of nation states to strengthen the culture of Indonesia (Dimyati, 2003: 212). This thought makes researchers feel optimistic about the primacy of local concepts of character practiced in the daily life of Tana Ai people. The local concepts in fact passed on by parents (adults) to children (young people) as the next generation of national culture character Indonesiaan All full and thorough (Bhineka Tunggal Ika). In addition, task and at the same time our role as citizens of the nation are: (1) seeks to revitalize and merefungsionalisasikan cultural values of character in the context of learning innovation in the home, community and school (compare trisentra education theory of Ki Hajar Dewantara), (2) as a guard or a preserver of the basic values of a community; because of the younger generation cannot find any real fundamental values of life in the culture "pop" or the contemporary technology. They keep turning on the basic values of where he came from. The requirement is integraitas moral, (3) as a guardian of the unity or community integration, because of modern societies tend to be individualistic and pragmatic now. The public interest tends to be sacrificed to serve the interests of individuals and groups; local values can be symbols and guard unity in the community. The requirement is that the social and cultural neutrality, (4) strengthen the

local culture in overseeing the governance of public life by formal educational institutions, non-formal or informal education. The condition is concentrated on social issues, and not just confines themselves in cultural affairs.

Local learning concept applied by the Tana Ai apparently not much different from the concept of adult education development we have outlined in the competency-based curriculum, educational unit level curriculum, and a new curriculum in 2013. The conception of the curriculum always refer to the context of the environment around the child Contextual Teaching and Learning (CTL) directly diiderai by children, management education based school (MBS), learning that involves community participation, develop the nuances of active learning, creative, effective, fun (PAKEM) or active learning, innovative, creative, effective, fun (PAIKEM), through play activities, tells a story, and sing the educational value that was digalakan today with a focus on children.

The dimensional of the education world was direct practiced by Tana Ai people. The one is said to have succeeded in learning, it was manifested in the results of daily activities such as process and product, performance, and behavior of daily life continues to change from time to time with a full sense of responsibility because he understands and understand (verstehen) properly and has a life skills (life skills) as a person. All activities are considered to have been successful in learning is usually expressed or passed through the life cycle of traditional rituals Tana Ai, but he still led, driven, and be acknowledged by parents throughout life as proof of the value of love of parents for their children. This is in line with the affirmation of Act No. 20 of 2003 on National Education System Chapter I Article 4 paragraph 3 that mention education as a process of cultural learners. So in the educational program contained a number of subjects such as mathematics, science, social studies, English, and skills, which leads to the formation of generations excel in all areas of both physical and spiritual.

Koentjaraningrat (1987: 9) defines culture as a whole of ideas and human work that must dibiasakannya to learn, with the whole of the cultivated and his work. The concept that culture is also the work of the mind in accordance with the core of the ideas contained in the terms of culture as a favor and power. Nevertheless should always bear in mind that culture is not only an intellectual activity. He is the result of a tangle of all possible with the power of nature, especially nature "in" man, under the guidance of reason. Reason wise allow humans to curb the world and realize all the potential in it in stages (stages) and proceed in time and space to achieve the perfect humanity, complete and intact. This thinking is in line with the thinking Ph. Tobing which defines culture as the result of human endeavor as far as possible to process or follow the cosmos and martinet, where man himself included in it such that humans gain a better livelihood in harmony and higher both in the field of spiritual and material (Driyarkara, 1980: 42). Even if you listened carefully and profound culture is essentially humanization, a process of improving human life better in a society. And because humans are creatures of culture was historically it is historically. Culture which in essence is patterns of human thought and action that was revealed in activity is an inheritance that is deposited consciously and freely to the next generation as a way of life (lifestyle).

Thus, culture is a whol process and the results of human development in various fields of life. The process and the results are then passed on from one generation to the next. The goal is to understand ourselves and for the sake of a better human life and harmony. The results also show that traditional beliefs have real empirical basis. Generally the existing native belief systems teach goodness and the rest other customs laden with social messages. Traditional culture refers to a value upheld together. And values that form the "ideal type" of a society. Because of learning approach can depart from the ideal type desired by the local culture of the area. With this approach the local culture will no longer be labeled old-fashioned, old-fashioned and outdated.

The fact was the local culture is able to demonstrate the principles of ecosystem balance. Therefore, the failure of our education is often experienced due to the approach ignores the local culture. In the case of rural communities have their own expertise (local wisdom). In fact, they already have an education system that can directly support the national education sector, therefore to be able to appreciate and use it as supporting the development of education. Because inside the East was the norm always familiar with the natural environment, human beings, ancestors, and the Most High. Eastern people see themselves, others, nature, and the Most High as a unified whole that can not be separated. Love and respect for nature, others, ancestors, and the Most High is rooted in the genuine belief that nature is also guarded by the spirits or certain gods. And hence they do not act arbitrarily against nature. One of the Eastern people respect for others, nature, ancestors, and the Most High is a rite of the original trust honor the spirits or gods when they intervene on nature. Manifestating ofthe Eastern societies are generally having the principles of governing the use and preservation of the environment. The balancing of tradition was preserved carefully regulated environment in religious ceremonies. These dimensions were needed to be considered by many parties, so that in turn the messages of development oriented to the preservation of nature must depart from the original view of the local community.

The Factors that was affecting the implementation succession based learning on local culture, in spite of the Tana Ai people still retain and cherish their culture and continue bequeathed to their descendants. These factors are influenced by differing values Tana Ai lived in a society with values that are introduced through school and who come from outside. Original values in the younger generation is still elusive for more meaningful polikronik, rather than the values that come from outside are easily understood easily because more meaningful generation monokronik. It is also backed by: (1) the amount and quality of the heir to the active or observer of the local culture is very limited, (2) local community less and less local people even understand the importance of identifying the local culture, (3) local communities less appreciate the local kebudayaanya left by their ancestors as kebudayannya Khazana, (4) less fixed local community's response when faced with changes in the new cultural elements in society, (4) their pragmatic mindset in some people who easily accept foreign culture without thinking first on the development of the local culture itself.

CONCLUSION

As civilized human beings life is always in a dynamic process, and must pass through thesis and antithesis to arrive at an ideal synthesis. Therefore, as an expression of cultural identity or the whimsical life of every person is living in certain social and historical conditions. Every generation must realize that when they accept a culture of previous generations in that moments they receive a new task that is placed on their shoulders as the heir to the culture. Here the need of participation, not just manifested by inheritance old heirloom or ancient objects, but especially through continuous education to learn and live the values of positive character. In addition to a long heritage in the form of valuable objects are inherited and how it might behave or ways of acting, because all the behavior were so various. Furthermore, the form must be realized that every culture has relative values. By being aware of this fact it is highly expected that every generation has the courage and critical attitude to change and improve its culture as a manifestation of people's lives.

All the values contained in the system of cultural forms that lead to fundamental values must be constantly purified and developed. This means that overall these findings are values, norms, attitudes, actions, views form sair, singing, expression, typical stories that are constructed together and the underlying character of the Tana Ai people as based learning local

culture. Practical learning characteristics are a consequence of values, attitudes, norms, action, belief systems, and worldviews that are constructed jointly by the Tana Ai. And to bridge the factors that influence the local culture-based learning the direct instruction and practice tiered bequeath a strategy in which character values to easy generation to not lose our identity and not alienated with their own culture.

REFFERENCES

Ande, A. 2005. *Alienasi Kebudayaan: Sebuah Perspektif Perubahan Budaya*, Hasil Penelitian Lemlit Undana Kupang

Bog dan R.C. & Biklen S.K. 1982. *Qualitative Reseach in Education.* Boston: Allyn & Bacon

Kuswandi, D. 2005. *Pengejawantahan Konsep-konsep Pendidikan Ki Hadjar Dewantara di Lingkungan Ibu Pawiyatan Tamansiswa Yogyakarta.* Malang: PPS UM.

Dimyati, M. 2003. *Keilmuan Pendidikan Dasar: Problem Disiplin Keilmuan, Praktek di Lembaga Keluarga dan Lembaga Agama, Metode Fenomenologi dan Persfektif Keilmuan Indonesia*. Malang: PPS UM

Denzin N.K., 1988, Triangulasion. In J.P. Keeves (ed). *Educational Research, Methodology and Measurement: An International handbook.* Oxford: Pergamon Press

Driyarkara, 1980, *Tentang Kebudayaan,* Yogyakarta: Kanisius.

Foster, P. 1987. *The Contribution of Education to Development.* In G. Psacharopoulos (ed) *Economics of Education: Research and studies.* Oxford: PergamonPress.

Gegeo, K.A.W. & Gegeo, D.W. 1992. Schooling, Knowledge, and Power: Social Transformation in the Solomon Islands. *Anthropology and Education Quarterly, 23 (1), 10-30.*

Geertz, C. 1975. *Politik Kebudayaan.* Yogyakarta: Kanisius.

Harris, S. 1992. Going About it the Right Way: Decolonising Aboriginal School Curriculum Processes. In G.R.Teasdale and J. Teasdale (eds). Voices in Aseashell: Education, Culture and Identity. Institute of Pacific Studies University of the South Pacific. In Association With UnitedNations Educational, Scientific and Cultural Organisation, Suva, Fiji.

Harris, S. 1990. *Two Way Abboriginal Schooling*. Aboriginal Studies Press, Canberra

Koentjaraningrat, 1987..*Pengantar Ilmu Antropologi*, Rineka Cipta-Jakarta

Littlejohn, S.W. 1996. *Theories of Human Communication*. California: Wadswarth.

Ozias, St-F. 1990. *Kebijakan Manusia Nusa Tenggara Timur Dulu dan Kini.* STFK Ledalero.

Spradley, P.J. 1997. *Metode Etnografi,*Yogya: PT. Tiara Wacana Yogya.

Teasdale, G.R. 1994. Education and Survival of Small Indigenous Culture. In *International Yearbook of Education.* Geneva: UNISCO.

Teasdale, G.R. 1995 Culture and Curriculum: Dilemmas in the Schooling of Australian Aboriginal Children. Paper Prepared for a Symposium on Cross Cultural Influences and Schooling Process. Tenth Conggress of the International Association for cross-Cultural Psychology, Nara City, Japan, July 1990.

Thaman, K.H. 1991. Culture and the curriculum in the South Pacific. *Comparative Education*, 29 (3), 249 – 260.

Thaman, K.H.1990. Toward a Culture sensitive Model of Curriculum Development for Pacific Island Countries, Invited Plenary paper Presented at the World Council for Curriculum & Institution (WCCI) Regional Conference, Sydney, July 6-10-1990

Werner, O. & Schoepfle, G. 1987. *Systematic Fieldwork,* Newbury Park: Bage Publications.

Winkel.1996.Dikutip dari Dunia Ilmu *.com*

The Effects on Problem Based Learning Strategy, Direct Learning and Learning Activeness towards Learning Academic Skills Five Grader Of SDK STA. Maria Assumpta Kupang

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Abstract: learning paradigm embraced by teachers as the learning tools appear at learning strategy applied in managing learning. The application of learning strategies that are less precise, rarely involve learners to be active in the learning process, and learning that tends to be monotonous will affect the learning outcomes of learners in the subjects studied. This study purposed to determine the extent of the main influence and interaction influence of learning strategies and learning activeness towards academic skills of learners. The study implemented is a quasi-experimental, with the research design version *nonequivalent control group design*. Subjects of the research were learners in class V SDK Sta. Maria Assumpta Kupang amounted to 102 people (3 classes). The data collected were processed by using the technique of inferential statistics using analysis of variance (Anova) two lanes 2 x 2. The results of this study showed that: (1) there are differences in academic skills between groups of learners that learned using a strategy of problem-based learning with group of learners that learned using direct learning strategy, (2) there are differences in academic skills between groups of learners who have high learning activeness with groups of learners who have low learning activeness, and (3) there is no interaction between learning strategy and the learning activeness towards academic skills of learners.

Keyword: problem based learning, direct learning, learning activeness, academic skills

The implementation process of learning requires interaction between the teacher to learner, learner to learner, and learner with other learning sources. Learners should actively improve their creativity in finding and controlling learning material as well as able in finishing the problem. Learning is only happens if learners experience the active learning by themselves. Learning is cannot be forced by others, and cannot be overwhelmed to others (Arifin, 2012). Learners are not in passive situation, but must actively pursue the process of their own learning (Purwanto, 2013).

Basically, learners are an active human being who has motivation to do something, have desire and their own aspiration. Learners have innate curiosity and continually trying to understand the world around (Piaget, in Ibrahim and Nur, 2000). Based on Vygotsky, child (as a learner) is an active knowledge founder, trying to construct or to build his own knowledge based on his daily experience (Suyadi and Ulfah, 2013). Mc. Keachie states that individual is an active learning and curious (Dimyati and Mudjiono, 2002).

In constructive learning where the learning activity centralizes on learning, teacher is only acts like mediator, facilitator, and learning source. Primary task has by the teacher is to motivate and guide the learners to build up the knowledge as well as to improve their self-suitable with the competence they had.

But, the fact show that in the basic level of education generally, the teachers are tending to implement direct learning strategy, where the learning activity is emphasize on the teacher, so the learners only listen, write, and memorize the materials explained by the teachers. Direct learning consists of five stages, they are: determine the goal, explanation and or demonstration, practice guiding, feedback, and practice development (Arends, 2004). The implementation of such learning practice ensue the emerge of common symptom in learners environments, such as less studious, lazy thinking, tend to cheat, rarely express their opinions, and do not make their own analysis.

If the situation persists, the learners will face problems in applying and implementing the knowledge and skills they got at class in their daily life. Therefore, teacher must be able to choose and apply the learning strategy that can motivate the learners to be more active to increase learners' ability in understanding learning material concepts and improve or construct their own knowledge.

Problem based learning strategy is an alternative that can be one of the solutions to stimulate the learners to think and try to find out by themselves. Learning based problem can: (1) create meaningful learning, where the learners could solve the problem faced by their own way suitable with their knowledge and experience, then implement them in their real life; (2) interpret knowledge and skills simultaneously and apply them the relevant contest; (3) improve critical thinking ability and develop initiative in working; and (4) bring out the internal motivation in learning, and develop interpersonal relation in group working (Suyitno 2011; Warsono dan Hariyanto, 2013).

If the problem based learning strategy applied effectively, so the learners actively conduct various learning activities, critical thinking, and find out as well as develop their own knowledge based on their learning experience. Therefore, learning activity become meaningful and improve learning academic ability, that is ability to think in high level owned and learner mastered after learn the specific learning material.

METHOD

Research Design

The research was conducted by a quasi-experimental research design, with draft version of the study was nonequivalent control group design. Based on the plan of experiment nonequivalent control group of, so the factorial design 2 x 2 that used in this research follows the pattern as shown in figure 1. By the factorial plan, so the primary effect can be determined and interaction effects between variables of the research.

		Learning strategy	
		PBM	SPL
Learning Activeness	KBT (1)	$Y_{1.1.1}$, $Y_{1.1.2}$,... $Y_{1.1.n}$	$Y_{1.2.1}$, $Y_{1.2.2}$,... $Y_{1.2.n}$
	KBR (2)	$Y_{2.1.1}$, $Y_{2.1.2}$,... $Y_{2.1.n}$	$Y_{2.2.1}$, $Y_{2.2.2}$,... $Y_{2.2.n}$

Figure 1. Pattern of factorial experimental design 2 x 2
Note: PBM : Learning Based Problem
SPL : Direct Learning Strategy
KBT : Activeness of High Learning
KBR : Activeness of Low Learning
Y : Academic Proficiency
n : Subject n

Based on figure 1, learning strategy variable and learning effectiveness studied in this research individually has two dimensions. Dimension of problem based learning strategy (PBM) and direct learning strategy (SPL). While the learning was activeness of dimension categorized based on the activeness of high learning. Learning strategy dimension that analyzed is problem based learning strategy and direct learning strategy (SPL). While learning was dimension activeness categorized based on the activeness of high learning (KBT) and the activeness of low learning (KBR).

Research Subject

Subject in this research was the learners of V SDK at of Sta Maria Assumpta Kupang were 102 learners (3 classes). The sample of this research was chosen by using technique samples of random groups, where the class was chosen randomly. There were two groups of learner; they were experiment group and control group. These two groups were given the questionnaire and pre-test (O_1 experiment group) and (O_3 control group) to know the level of learning activeness (the activeness of high learning and activeness of low learning) and their early ability. After the pre-test, experiment group was given a treatment (X_1), where the learners were taught by applying the problem based learning strategy. Whereas for controlling group, the learners were taught by using direct learning strategies (X_2). Then, after the learning process to both of the groups were done, post-test done (O_2 for experiment group) and (O_4 for controlling group), to know the improvement of academic skills after the treatment.

Research Variable

Some variables was considered in this research is: (1) Independent variable is problem based learning strategy and direct learning strategy, (2) dependent variable is academic capabilities, and (3) moderator variable is learning activeness. The model of conceptual relation between variable that analyzed drawn as follows.

Research Instrument

There were two research instruments used in this research, they were: (1) instrument to measure the learning activeness in form of questionnaire, and (2) instrument to measure the learning of learners' academic skills in form of learning test score. Before these two instruments used in collecting the data, try out or test is need to be done firstly. The result of test instrument processed and analyzed to know the level of instruments' validity and reliability in order to be able to be used.

Data collected were processed by inferential statistic using variant technique analysis (anava) two ways 2 x 2.

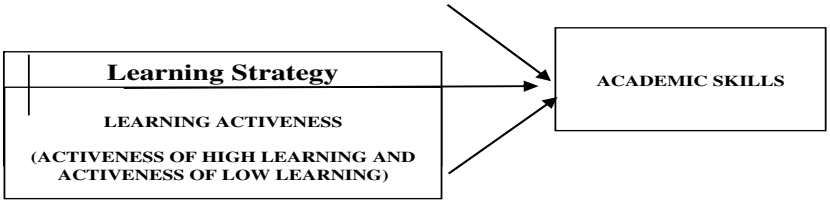

Figure 2. Model of Conceptual Relation between Research Variable

Factorial anova or also known as double anava is parametric technique statistic that is used to test the differentiation between groups of data from two independent variables or more (Winarsunu, 2006).

RESULT AND DISCUSSION

The Analysis result of Applying Learning Strategy and Learning Activeness

The aimed of andertaken this research is to know the effect of problem based learning strategy (PBM) and direct of learning strategy (SPL) toward the learners academic activeness. Number group of learners that were taught by PBM is 35 learners (50,72%), and group of learners that were taught by SPL is 34 learners (49.28%).

Data of effectiveness learning obtained by giving the questionnaire to the subject is 69 learmers of VC as experiment class and VA class as controlling class. The same questionnaire were given to both of the teachers' class guardian to evaluate the learners' learning activeness under their control/guides. The result of descriptive analysis shows that the numbers of learners who have the high learning activeness is 44 learners (63.77%), whereas the learners who has the low learning activeness is 25 learners (36.33%).

And then, data frequency explained and percentage of interaction between learners in each category of learning activeness (KBT and KBR), and learning strategy (PBM and SPL) that has calculated which is suitable with the determined score tension.

Tabel 1. Interaction of Treatment Group

Interaction	Frequency	Percentage
Learning Based Problem – Activeness of High Learning (PBM – KBT)	26 learners	37,68 %
Learning Based Problem – Activeness of Low Learning (PBM – KBR)	9 learners	13,04 %
Strategy of Direct Learning – Activeness of High Learning (SPL – KBT)	18 learners	26,09 %
Strategy of Direct Learning – Activeness of High Learning (SPL – KBR)	16 learners	23,19 %
T o t a l	69 learners	100 %

Based on table 1, it can be known that interaction between experiment group that was taught by using PBM cumulatively were 26 learners (37.68%) who have high learning activeness, whereas 9 learners (13.0%) who have low learning activeness. the controlling group that were taught by using SPL were 18 learners (26.09%) who have high learning activeness, whereas 16 learners (23.19%) who have low learning activeness.

Then, distribution of research subject based on learning strategy and learning activeness shows that in experiment group that were taught by using PBM cumulatively were 74.29% of learners who have high learning activeness, whereas 25.71% of learners who have low learning activeness by using SPL were 52.94% who have high learning activeness, whereas 47.06% who has low learning activeness.

The Analysis Result of Academic skills

In the first meeting before the treatment was given, pretest arranged to know the learners competence at first. From the pre test's result was obtained the average score for experiment class that were taught by using PBM was 52.83 with standard deviation was 10.72, whereas pre

test for controlling class that was taught by using SPL obtained the average score 55.76 and standard deviation 8.92.

After the two subject groups were given by applying PBM and SPL, so the pre test were done. Description of acquisition data of academic skills as the learners learning outcome group that was applying PBM obatined the average score 80.66 with Std. Deviation 10.21, whereas the average score of post test for academic skills in group of learner used SPL was 73.62 with Std, Devisiation 8.06. If the result of post test compared with the result of pre test, there were imrpoving with the average score obtained by the learners who were taught by using PBM was 27.82. Whereas for the average score from the learners who were taught by using SPL was 17.85.

Besides, if it was seen from the leaning activeness, found out that the average score of post test from the learning group that was taught by using PBM with high learning activeness was 84.65, with Std. Deviation = 8.41, and category of low learning activeness was 69.11, with Std. Deviation = 4.54. Whereas the average score of post test from group that was taught by using SPL with category of high learning activeness was 78.33, with Std. Deviation = 6.58, and category of low learning activeness was 68.31, with Std Deviation = 6.07.

The Difference of Learners Academic skills Considered from Learning Strategies

From the result of inferential statistical analysis found out that the difference of learners' academic skills that were given a treatment (PBM and SPL) was significant. It can be shown from ratio $C_{alculate}$ for statistic test obtained 3.818 with the value 0.015. This significance level is smaller from the significance level used, which is 5% or 0.05. This is shows that there were difference learners academic skills that was taught by applying PBM and learners learning academic capabilities that were taught by using SPL. Therefore, it can be conclude that these two learning strategies were having the same effects towards the learners' academic skills.

To know which learning strategies that has the most effect towards the result of learners' learning, so test in advanced was done by Least Square Difference (LSD). The result of LSD showed that PBM has a great difference that is 3.560 with SPL. The result of descriptive analysis showed the average score of learners academic skills that was taught by using PBM is 80.65, whereas the average score of learners academic skills that was taught by using SPL is 73.61. Therefore, it can be concluded that problem based learning strategy has a better effects rather then direct learning strategy towards learners academic skills.

Based on the result of statistic test descriptively obtained the average score of academic skills from the two groups, knew that group of learners who were taught by using PBM obtained the highest average score compared to the average score obtained by a group of learners who were taught by using SPL. It can be caused by he exist of others variables that can influence learning outcome (academic skills), yet not analyzed and controlled in this research. Those others variable can be an internal factors, such as the condition of psychology (mental and emotional) and physique, although external factors such as environment and learners' social condition.

Finding of this research is in line and strenghten finding of the research earliest. Finding of Redhana and Kartawasono (006) research showed that PBM could improve students' of university interest, ability in solving the problem, and their learning outcome. Whereas Raharso (2007) who did the research about implementation of problem based learning in university got the conclusions that learning process by using PBL strategy gave the more optimal result rather than conventional learning strategy.

This research was done by Tegeh (2009) to compare the result from students' university learning achievement who were taught by using problem based learning strategy with

exposition learning strategy conclude that applying the problem based learning strategy gave the highest influence towards the students' of unversity learning achievement in media of learning course rather than the use of exposition learning strategy.

Besides, finding from Yudiernawati's (2014) research about the effect of learning strategy and cognitive style towards learners' achievement found out that the use of PBM gave a better contribution and could improve learners' learning aachievement rather than SPL. Whereas the research that was done by Sakti (2015) showed there was a strngthen effects of PBM towards the learners' learning concept understanding and critical thinking abilities compared with SPL.

Based problem learning strategy is one of the learning strategies founded on constructivism viewed. In constructivism point of view, learning is a process of developing knowledge by the learners based on their owned knowledge (Yamin, 2012). Aforesaid point of view emphasize more on how the learners' are learning, so essentially learning is helping the learners in contructing or developing their own knowledge.

Applying problem based learning strategy could activate learners in learning activity. The learners are giving a chance to solve the problem contextually and work collaboration in a group, and presenting the result of group working in front of the class in turn. This kind of learning activity is a meaningful learning, because not only accept and memorize the learning material that was given by the teacher.

Meaningful learning needs a special strategy in organizing the material and delivering strategy. In line with meaningful learning, Degeng (2013) states that presently, learning organizing often done based on unparallel assumption with learning nature, nature of learning, and nature of teaching, so insufficient in encouraging the meaningful learning.

The Difference of Learners' academic skills Viewed from Learning Activeness

Result of data analysis based on learners' learning activeness showed that the ratio of $F_{calculate}$ learning activeness was 49.227, with p – value 0.00. If this significance rank compared with the probability 0.05 so the significance rank is smaller than 0.05)p value < 0.05), so it can be concluded that there were a differende of learners' academic skills who have high leaning activeness with learners' acedemic competence who have low acadeimc competence. Therefore, it can be said that learning activeness effects towards the learners' academic skills. The result of descriptive analysis showed that the average score of learners' academic skills who have high learning activeness was 81.494, whereas the average score of learners' academic skills who have low learning activeness was 68.712 (difference score is 12.72). Therefore, it can be conclude that the learners with high learning activeness obtained a better learning competence rather than the learners' with low academic skills.

Result of this research also found a fact that the learners with high academic skills gave contribution 63.76% and learners with low academic skills gave a contribution 36.24% towards the learners academic skills. This is shows that learners' activeness is one of the factors that effects learners' learning outcome. Other variable that effects of academic skills as the learners' learning outcome yet is not analyzed and controlled in this research, whether in form of internal or external factor.

Learning activeness is an important effort which is need in learning. Someone's learning outcome is tending to be affected by the level of learners' learning activeness in their learning activity. Activeness is one of the principles in learning that can be used as the basic in learning, for the learners in improving learnig activities, or teacher as educator in applying their teaching strategy (Dimyati and Mudjiono, 1994; Annurrahman, 2010).

Learner's learning activity cannot be forced by others and cannot be transfred to other. learning can only be done if the active learners realizing by themselves . John Dewey (in

Riyanto; 2012) states that learning is an activity that must be done by the learners for themselve, and because of their own initiative. Learners' ctiveness in learning process dould stimulate and improve their talent, critical thinking, and could solve their daily problems (Yamin, 2012).

In line with the learning activeness, Mc. Keachie states that individual is an active learners, curious or inquisitive, and social (Dimyanti and Mudjiono, 2002). In every learning process always show learners' activeness. These learning activeness is various, start from physique activity that is easy to be observed to the physique activity which is difficult to be observed. Physique activity is can be in form of reading, listening, writing, practice specific skill, and many more. Whereas physique activity can be in form of using mastered valuable knowledge in solving the problems faced, compared one concept to other concepts, concludes the experiment's result and another kinds of activity.

In learning process, learning activeness is really needed because someone who has not had learning activeness, might not be able to obtain a maximal learning outcome. Some point of view about learning activeness can be concludes that learning activeness is an effort or activity which is done by the learners continuously and emphatically to obtain some information, knowledge, facts, and concepts about learning material from any sources based on their own willingness. The active learners always try to access any information, knowledge, facts, and concepts related with learning material through any kinds of learning sources, such as: books, library, laboratory, museum, source, mass media, and environment.

Interaction between Learning Strategy and Learning Activity towards learners' Academic skills

Based on the result of test between learning strategy with learning activeness could be known that ratio $F_{calculate}$ for statistic interaction test was 2.297 with p – value was 0.134. This rank of significance is bigger than 0.05, so can be calculated that there was not interaction between learning strategy (PBM and SPL) with learning activeness (KBT and KBR) towards the learners' academic skills. The analysis result showed that there was not interaction between PBM with KBT have the average score 84.65, and PBM with KSR have the average score 69.11. Whereas for SPL and KBT obtained the average score 78.33 and SPL with KBR have the average score 68.31.

Interaction is collaboration between two independent variables or more in effecting one dependent variable (Kerlinger, 1986). In line with Kerlinger's point of view, Ghozali (2009) states that the affects of interaction is the affectof two or more independent variables towards dependent variable. Interaction could be happened if independent variables were not bring the affects separately and indvidually. On the other hand, the interaction also could not be happened if independent variables bring out the affect separately and significantly.

Result of this research found a fact that interaction between learning strategy and learning activeness with a ration $F_{calculate}$ as big as 2.297 and sig. =-0.134. This is shows that there is no interaction between learning strategy and learning activeness viewed by learners' academic skills (learning outcome). The result mentioned is a cumulative contribution. Cumulative contribution mentioned is not as big as variable contribution of learning strategy or learning activeness, if analyzed partially. It considers that interaction between learning strategy and learning activeness can affect differently to different learners, or another expression, the collaboration's contribution between variable of learning strategy and learning activeness do not give a different affect to each learner.

The affect of learning strategy towards learners' academic skills that has been presented in the previous part showed that learning strategy give the primary strobg effecr towards learners' academic skills. This is proven by the theory exist and the result of research that

supports the effects of problem based learning strategy (PBL) towards the learners' outcome. The supporting theory presented by Newby, et al (2000), Palmer (20012), and Arends (2004) stated PBM is a learning strategy that could improve the way of thinking, ability in solving the problem, intelectual skill, learn to act like an adult through the real situation, and become dependent learners.

Besides, result of the research about applying problem based learning strategy (PBL) and conventional learning strategy as independent variable showed that PBM gave a better effect towards the learners' outcome rather than SPL. The earliest researches such as: Redhana and Kartawasono (2006), Raharso (2007), Setiawan (2008), Tegeh (2009), Kharida and Rusilowati (2009), Yudiernawati (2014), and Sakti (2015) found out that learners' learning outcome who were taught by using based problem learning strategy (PBL) is highest compared with the learners' group working who were taught by using conventional learning strategy.

Besides the primary affect on variable of learning strategy towards the learners' academic skills, this result of research also shows that the primary affects on variable of learning activeness towards learners' academic skills. Learning activenes gave a strong affects towards the learners' academic skills support by theoritic studyand empiric as presented at the earliest part.

Theoritic and empiric supports about the existence of the primary affect on learning strategy and learning activeness towards the learners' academic skills impacts on the weakness of interaction on learning strategy and learning activeness towards learners' academic skills. Finding of this research showed that there is no interaction between learning strategy (PBM and SPL) with the learning activeness (KBT and KBR) towards the learners' academic skills at class V of Sta Maria Assumpta Kupang in nature science.

CONCLUSSION AND SUGGESTION

Based on the description of research result and discussion that has been discussed earliest, can be concluded that.

1. There are differentiation of academic skills between a group of learner who were taught by using PBM and a group of learners who were taught by using SPL at V class of SDK Sta. Maria Assumpta Kupang. Implementing PBM gave a highest affect towards the learners' academic skills rather than using SPL.
2. There are differentiation of academic skills between a group of learners who have a high learning activeness and a group of learners who have low learning activeness at class V of SDk Sta Maria Aussmpta Kupang showed that there is a difference. Some theoretic study showed that learning activeness gave a positive affect towards the learners' learning outcome.
3. There is no interaction between learning strategy (problem based learning strategy and direct learning) and learning activeness (high learning activeness and low learning activeness) towards learners' academic skills at class V SDK Sta. Maria Assumpta Kupang.

Based on these finding and the conclusion of this research, there are some suggestion that can be delivered, as follows:

1. Teacher as the educator is expected to: (a) use PBM in teaching the material in the classroom, in specific course; (b) pay a close attention on the material of the courses, then select the basic thing in the materials contains the contextual problems appropriate with the real condition about the environmental; and (c) condition the activeness and dependence learners before, so the implementation of PBM could directly be fluent based on the lesson plan that has been settled before.

2. Learners as the students are expected to: (a) always persistent and seriously attempt in searching and finding a knowledge, information, theory, and concept relates with the course's material that is learned through various learning sources; and (b) take advantage of the facilities effectively and learning sources that supported the PBM implementation, so the learning process could running smoothly and obtained a maximal learning outcome.
3. Another researcher are expected to: (a) doing a farther study about the improvement of learning strategy through classroom action research (CAR); (b) doing a farther study by picking up another main point of the material in nature science's subject in the other class, or the subject in other material.

REFERENCES

Arends, R.I. 2004. *Learning To Teach* (Terjemahan, 2008 - Buku 2 Edisi Ketujuh). Yogyakarta: Pustaka Pelajar

Arifin, Z. 2012. *Evaluasi Pembelajaran, Prinsip, Teknik, Prosedur.* Bandung: Remaja Rosdakarya

Aunurrahman. 2010. *Belajar dan Pembelajaran*. Bandung: Alfabeta

Barrows, H.S., & Tamblyn, R.M. 1980.*Problem Based Learning: An Approach to Medical Education*. New York: Springer Publishing

Degeng, I.N.S. 2013.*Ilmu Pembelajaran, Klasifikasi Variabel untuk Pengembangan Teori dan Penelitian*. Bandung: Kalam Hidup

Dimyati, M. & Mujiono. 2002. *Belajar dan Pembelajaran*. Jakarta: Rineka Cipta

Ghozali, I. 2009. *Aplikasi Analisis Multivariate dengan Program SPSS*. Semarang: Badan Penerbit Universitas Diponogoro

Ibrahim, M. dan Nur, M. 2000. *Pengajaran Berdasarkan Masalah*. Surabaya: Unesa University Press

Joyce, B., Weil, M., & Calhoun, E. 2009.*Models of Teaching*.(Terjemahan oleh Achmad Fawaid dan Ateilla Mirza). Yogyakarta: Pustaka Pelajar

Kerlinger, F.N. 1986. *Asas-Asas Penelitian Behavioral*.Terjemahan oleh Landung R. Simatupang. 2003. Yogyakarta: Gajah Mada University Press.

Kharida & Rusilowati. 2009. *Penerapan Model Pembelajaran Berbasis Masalah untuk Meningkatkan Hasil Belajar Siswa pada Pokok Bahasan Elastisitas Bahan*. Jurnal Pendidikan Fisika Indonesia, 5 (2): 83 – 89

Martuti, A. 2009.*Mengelola PAUD dengan Aneka Permainan, Meraih Kecerdasan Majemuk*. Yogyakarta: Kreasi Wacana

Majid, A. 2013.*Strategi Pembelajaran*. Bandung: Remaja Rosdakarya

Newby, T.J., Stepich, D.A., Lehman, J.D., & Russekk, J. D. 2000. *Instructional Technology Teaching and Learning; Designing Instruction, Integrating Computers, and Using Media.* New Jersey: Prentice-Hall, Inc.

Palmer, B. 2001.*Assessing the Effectiveness of Problem Based Learning in Higher Education Lessons from the Literature* (online), http://www.rapidentellect.com/AEQweb/mop4spr01.htm, diakses 10 April 2015

Purwanto. 2013. *Evaluasi Hasil Belajar*. Yogyakarta: Pustaka Pelajar

Raharso, S. 2007. *Implementasi Problem Based Learning di Perguruan Tinggi*. Jurnal Ilmu Pendidikan, 34 (1): 55 - 61

Redhana, I.W., & Kartowasono, N. 2006.*Penerapan Pembelajaran Berbasis Masalah untuk Meningkatkan Minat, Pemecahan Masalah, dan Hasil Belajar Mahasiswa*.Laporan Penelitian tidak diterbitkan. Singaraja: IKIP Negeri Singaraja

Riyanto, Y. 2012. *Paradigma Baru Pembelajaran*. Jakarta: Kencana

Rusman. 2013. *Model-Model Pembelajaran*. Jakarta: Raja Grafindo Persada

Sakti, H.G. 2015. *Pengaruh Strategi Pembelajaran Berbasis Masalah vs Pembelajaran Langsung dan Motivasi Berprestasi terhadap Hasil Belajar Pemahaman Konsep dan Kemampuan Berpikir Kritis pada Mata Pelajaran Ekonomi untuk Siswa Kelas X SMA Negeri 1 Sakra Timur*. Disertasi tidak diterbitkan. Malang: Program Pascasarjana Universitas Negeri Malang

Setyosari, P. 2014. *Menciptakan Pembelajaran yang Efektif dan Berkualitas*.Jurnal Inovasi dan Teknologi Pembelajaran, Vol. 1 Nomor 1, 14 – 21

Sugiyono. 2013. *Metode Penelitian Pendidikan, Pendekatan Kuantitatif, Kualitatif, dan RD*. Bandung: Alfabeta

Suyadi & Ulfah, M. 2013.*Konsep Dasar PAUD*. Bandung: Remaja Rosdakarya

Suyitno, I. 2011. *Memahami Tindakan Pembelajaran; Cara mudah dalam perencanaan penelitian tindakan kelas*. Bandung: Refika Aditama

Tegeh, I M. 2009.*Perbandingan Prestasi Belajar Mahasiswa yang Diajar dengan Menggunakan Problem Based Learning dan Ekspositori yang Memilili Gaya Kognitif Berbeda*.Disertasi tidak dipublikasikan. Malang: Program Pasca Sarjana Universitas Negeri Malang

Warsono & Hariyanto. 2013. *Pembelajaran Aktif, Teori dan Asesmen*. Bandung: Remaja Rosdakarya

Winarsunu, T. 2006. *Statistik dalam Penelitian Psikologi dan Pendidikan* Malang: Universitas Muhammadiyah Malang Press

Yamin, H.M. 2012. *Desain Baru Pembelajaran Konstruktivistik*. Jakarta: Referensi

Yudiernawati, A. 2014.*Pengaruh Strategi Pembelajaran (Problem Based Learning vs Direct Instruction) dan Gaya Kognitif terhadap Prestasi Belajar Aplikasi Proses Keperawatan pada Pembelajaran Klinik Keperawatan*.Disertasi tidak diterbitkan. Malang: Program Pascasarjana Universitas Negeri Malang

Students' Perception of using Games in the Teaching of Reading Skill

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Abstract: The study attempts to investigate students' perception of using games in reading among upper level students. The study was conducted to fifteen students from a rural school in Padawan, Sarawak, Malaysia. The aims of this study is to find out students' perception of using games in teaching of reading skill among stage two students, to find out the impact shown according to students' gender and to investigate whether the usage of games really help the students in learning English Language. The methodologies incorporated in carrying out this study was qualitative which involves questionnaires. It is found that teacher will face some common problems in getting the right approach to teach reading skill as inculcate the reading interest. Based on the result obtained from the questionnaire the outcome of using games in teaching of reading skill shows excellent performance. Furthermore, according to the research done, a game can be a powerful language learning tool. More imortantly, the game was found as an important platform to create learning environment so as to motivate students to learn as well as inculcate the reading interest.

Keywords: Games, Reading skill, Stage two students, learning tool

Numerous observations conducted discovered that many Malaysian English language teachers encounter similar challenges in teaching English language where the students do not master reading skill. As a result, the students do not perform in the public examinations. According to Ziauddin Khan (2004), reading is a responsive process which involves recognition, interpretation and perception of written or printed materials. It also functions as a vital tool in every professional field where reading skill helps to provide an additional means of access to academic, professional and recreational materials (Nesamalar, 2005). Thus, reading is regarded as the indispensable channel of communication in ever-widening world.

It is suggested that the use of games is effective in drawing students' attention. Ulrich and Glendon (2005) suggest that games are fun and easy to develop to challenge students and provide immediate feedback so students can assess their own comprehension and, consequently, their need for further study. Games help and encourage many learners to sustain their interest and work. Moreover, it helps the teachers to create useful and meaningful context. Thus, the meaning of the language they listen to, read, speak and write will be more vividly experienced and, therefore, better remembered. If it is accepted that games can provide intense and meaningful practice of language, then they must regarded as central to a teacher's repertoire (Wright, 1984).

LITERATURE REVIEW

The researcher believes that a well-planned lesson is needed and it should take students' needs and their differences in relation to eco-socio background, gender and abilities into

account so it could be implemented accurately. Thus, teachers must contemplate which games to be used for the lesson, when to use them, how to link them up with the syllabus textbook or programme and how, more specifically, different games will benefit students in different ways (Khan.J, 1996). This is vital as the students would be motivated as if they find the lesson is interesting and meaningful and this will be followed by the state agenda in which games bring the students back to the basics of learning the language skills (Mohd Sofi Ali, 2003). Furthermore, Payne (2001) insisted educators must teach and provide support, insistence, and expectations to the students.

As stated by Teoh (1989) , games provide competitive element into the lesson while T.S. Rodgers (Shoemaker, 1991) states that games are competitive, governed by rules, goal-defined, engaged the pupils to challenge themselves which leave predominant impacts in the learning process. The competitive ambiance also makes learners concentrate and think intensively which enhances unconscious acquisition of inputs. It is indicated that most students expressed fondness of the relaxed atmosphere, the competitiveness, and the motivation that games brought to the classroom. According to Saygılı (2013), games would render the reading and writing process more fruitful for both teachers and students.

This paper also investigates through the lens of different genders where it is suggested that sex differences to natural biological maturational differences between males and females have different learning behaviours. According to Aliotti (1978) and Restak (1979) sex differences may be due to inherited factors and biologically inherent brain differences. Additionally, McBride (n.d) indicates boys are more likely to be involved in three dimensional kinesthetic activities involving body movements. It is also suggested that girls have fewer attention span problems and can make faster transitions between lessons compared to boys. Consequently referring to McBride's theory, both genders would display dissimilar responses and perceptions of the method used.

According to Kumar and Lightner (2007), a study by Hake (1998) discovered that students demonstrated more advanced problem solving, gain memory and performance benefits when they are involved in games and interactive learning methods other than learning supports the development of social competence through interactions structure and cooperative learning. Furthermore, results derived from some study cases using games in teaching conclude that games techniques helps the students in their learning especially English language as games promote the interest to read more English materials among students. Although there is a difference between genders and the effects might vary, reading skill is seen to be improved when games are used. Thus, games are deemed as an effective technique in teaching reading skill among students as it is suitable to be served as a warm up activity which stimulates the students to be prepared and they help the students to develop learning skill apart from boosting the students' confidence and expand their knowledge while inculcating reading habit among the students. Melor et al (2009) further elaborate that students can manage their own learning at their own choice. This helps them to take responsibility of their own learning that showcases greater autonomy and more learners centred.

METHOD

This case study involves fifteen students who are studying in Year 5 and 6 of Sekolah Kebangsaan Saint Giles, Padawan. The researcher has chosen this particular school and experimental group due to familiarity of the environment and the group of students. The selected school is situated in a rural area and the students do not have sufficient exposure of English language. In the case study, the researcher investigates students' perception of the use games in learning English language among Year 5 and 6 students aged 10 involving ten boys

and five girls. The study will be taken place for 30 minutes for the period of one week. The students are divided into two groups which are control group (without games) and experimental group (with games). Both groups will have reading lesson and experimental group will undergo lesson stages involving games such as problem solving, chain story and crossword puzzles. The research design selected for this study is qualitative methods based on the objectives of the study which are the students' perception of the technique used, the impacts on both male and female. In relation to qualitative method, an observation is conducted to monitor the students' attitude during their participation in the activities conducted during lesson.

RESULTS AND DISCUSSION

The result derived from the observation reveals the differences shown by both male and female respondents based on pre and post study. Apart from that, interviews are conducted among students who are chosen randomly by the researcher to comprehend the students' perceptions and opinions regarding the technique introduced within the lesson and English language. A questionnaire is used to draw the students' response after the study is conducted by responding to the questions by indicating the scores ranging from 1 to 10 marks regarding the teaching of reading through games. The figures below illustrated students' perception on the use of games in their reading lesson.

Table 1: Students' perception

Number of students	Male	Female
	7	8
Like English language subject	13/15	
Like reading English materials	9/15	
Prefer female teachers	15/15	
Prefer group work activities	9/15	

Based on the table above, 86.9% male students like English language while all the female students like the language and enjoy English lesson. Furthermore, it is showed that only 34.7% of male students spend their time reading English material where else 71.4% of female students spend their time on reading English materials. It is found that female students spend most of their free time at the school's library reading storybooks while the male students prefer outdoor activities. Denoting from the survey conducted, it is found that male and female respondents showed similarity in preferring female teachers. On the other hand, it is showed that male students prefer to work in groups compared to female students due to the imbalance number of students based on genders. Deriving the second questionnaire result, it is found that all male respondents like games during reading lesson. Hence, this proves that male students prefer active learning involving physical movement as they reflected that games motivate them to read.

The table below showed the impact of games in the teaching of reading among students.

Table 2: Impact on students

Students	Gender	
	Male	Female
Increase motivation to learn English subject	7/7	7/8
Increase communication among students	6/7	7/8
Develop students in learning ESL	7/7	8/8

Hence, the theory of the use of games in teaching reading is effective is proven by the result drawn from the questionnaire. It is shown that male respondents display greater interest in reading when games are used. Furthermore, it is found that both gender respondents gave full cooperation and they are more attentive during the lesson when games are used. Similar to the findings of the questionnaire, the male respondents showed greater interest during lesson when games are used as they are given the opportunity to have physical movement. It is found that the male respondents' attitude differ from pre study as they are more cooperative and engaged with the lesson. Apart from that, the number of male respondents present at school for English lesson increases compared to pre study. This shows that games provides a platform for the teachers to attract the students. On the other hand, it is found that female respondents are more passive. This is possibly due to the small number of female students in the class. However, the female students dominate most of the time during the reading session as they are more confident and they believe that reading could expand their knowledge and excel in their study.

It is found that both genders respondents are motivated during lesson other than enjoying the lesson as they find that the games provide them pleasurable ways to learn the language. Drawing from the observation, the students display higher confidence including low proficiency learners as they are able to comprehend the lesson and they enjoy working together as a team. This is proven by their willingness to express their opinions and ideas during the lesson. Hence, games help the students to have meaningful lesson in a conducive learning environment.

CONCLUSIONS

It is hoped that there would be more studies regarding games used in the classroom. The study faced limitations in relation of number of respondents and imbalance of gender groups. Thus, it is recommended that the study involves bigger group and schools to achieve more reliable and accurate result in the future. Corresponding to the status of English language as the second language in Malaysia, numerous policies and programmes have been implemented to ensure the students master the language. Yet, the reading skill among students are not deemed as important by the students and it is found that the percentage of reading habit among students is low. Hence, it is important to inculcate reading habits among young children to enable them to have better benefits in the future. Thus, games are encouraged to be used in language classrooms as they are able to transform the students and change the students' perception and attitudes in learning English language.

REFERENCES

Chua, Y.P. 2006. *Kaedah Dan Statistik Penyelidikan Buku 1*: Malaysia: Mc Graw Hill Companies

Hasnul, F.H. *2011. HBEF 4303 Projek Kajian Tindakan*: Meteor Doc Sdn. Bhd

Kumar, R., Lightner, R. 2007. *Interntional Journal of Teaching and Learning in Higher Education. Games as an Interactive Classroom Technique: Perceptions of Corporate Trainers, College Instructors and Students, Volume 19, 53-63*

Melor, Md-Y, Maimun, A.L., Chua, P.L and Ismail, S.W. 2009. Evalution of ICT Usage for General or English Learning Purposes. *Proceedings of the 5 th WEEAS/ASME Conference on Educational Technologies*; 136- 142

Mohd, S.A. 2003. *English Language Teaching in Primary Schools:Policy and Implementation Concerns, International Languages Teacher Training Institute, Kuala Lumpur*

Nesamalar, C.S. Sithamparam, S.C. 2005. *ELT Methodolgy: Principles and Practice 2nd Edition*: Selangor: Penerbit Fajar Bakti Sdn. Bhd

Saygılı, G. 2013. Analysis of teachers' views on the configuration of first reading and writing process with games. European *Journal of Contemporary Education,* 6(4), 235-248.

Shoemaker, C.L, Shoemaker, F. 1991. *Interactive Techniques For The ESL Clas*sroom: Massachusetts: Heinle & Heinle Publishers

Skinner, D. 2005. *The Effects of a Comprehensive Literacy Model in a High Poverty School: A Five Year Study of School Reform*.

The Influence of Reading Content On Students' Perceptions Of The Masculinity Or Femininity Of Readinghttp://Jlr.Sagepub.Com/Content/18/3/243.Full.Pdf Patricia R. Kellyr, 1986, Volume Xviii, No. 3

United Chinese School Committees' Association of Malaysia. 1989. *On TESL*. Kuala Lumpur: Pencetakan Dan Perniagaan Sdn Bhd.

Ziauddin, K. 2004. *Teaching Reading Skills: Problems and Suggestions, University Khaipur, Pakistan*

Ziauddin, K. 2004. *Teaching Reading Skills: Problems and Suggestions*. http://www.bzu.edu.pk

Teachers Pedagogical and Professional Competences in CLIL-Based Primary Schools in Indonesian Context

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Abstract: To face the Millennium Development Goals, schools are supposed to equip the students to have proper English skills to help them interact in AEC. Yet, empirical evidence revealed that the education in Indonesia ranks 64 out of 120 countries (EDI, 2012). For this, Universitas Negeri Malang as one of the teacher training institutions in Indonesia takes the responsibility in improving the teachers' quality. Hence, this research investigated the teachers' pedagogical and professional competences in teaching English, Math, and Science. Questionnaire, interview guide, observation sheets, and set of tests were used in descriptive quantitative method. Results showed that pedagogically, most of the teachers lack the competences in translating framework into materials, designing classroom activities, and facilitating students to develop their potentials. While in professional competence, most of the teachers find difficulties in developing and delivering materials creatively in proper English. Periodical trainings and workshops are proposed as the remedy. Nowadays, English is taught in all parts of the world, as far reaching as the remote areas in small countries. Indonesia is no exception; English has been introduced and taught in schools, starting from primary to upper secondary, in all its 34 provinces. In secondary schools English is a compulsory subject, while in primary schools, it is offered as a local content. The decision for this was provided by the Ministry of Education and Culture, through the Decree Number 060 Year 1993, which states that English may be taught in primary schools, starting from Grade 4. This law was strengthened with the Decree of Ministry of Education and Culture Number 20 Year 2003 on the System of National Education. It was then accepted enthusiastically, and primary schools began to teach their students English.

KeywardL Pedagogical, Professional, Competences

As a local content subject, English is given as a "language across curriculum" in some schools, or, as it is now termed, in a Content and Language Integrated Learning (CLIL) mode. Subjects such as Mathematics and Science are taught using English as a Medium of Instruction (EMI). This policy also applies to schools which adopt the international curriculum, and thus develop a synergy between the National Curriculum of Indonesia and an International Curriculum from one of the OECD countries. These schools have a separate type of class which is called the International Class Program (ICP) where the bilingual education program is adopted (Rachmajanti et al., 2015).

This policy, consequently, demands that teachers are able to teach the subjects of Mathematics and Science using English. Those abilities are part of the requirements which are included in the four competences that teachers have to possess (Decree of Ministry of Education and Culture number 14, year 2005). They have to master the contents of their subject matters (professionally) as well as the techniques of teaching them (pedagogically). This becomes a crucial matter in primary schools, where the curriculum used is thematic, particularly in schools which employ two curricula as stated above; teachers have to be able to combine the themes of the national curriculum with those in the international one. In addition, they also have to be able to teach the content-based subjects in English.

In light of that issue, schools then turn to CLIL as the solution for teachers teaching in schools which integrate two curricula. As stated in the paper of European Language Policy and CLIL (2003), "within CLIL, language is used as a medium for learning content, and the content is used in turn as a resource for learning languages".

As Wolff (2007) in his article Some Educational and Methodological Principles of Content and Language Integrated Learning (CLIL) mentions,

> "in terms of teaching methodology, the way in which one can integrate subject and language work is of central importance for every form of CLIL. As in any form of institutionalised learning, however, the question also arises for CLIL as to how the learning processes in school can be appropriately promoted methodologically and didactically. This crucial didactic question raises itself doubly in the context of CLIL since the aim is to promote knowledge of a subject and knowledge of a foreign language at the same time".

In addition to the discussion above, another source, Cambridge (2016) mentions that one fundamental thing in designing school curriculum is developing teachers' competence in delivering the contents of their subject matter through the medium of English.

The researchers have been actively involved in the supervision and training of teachers in the laboratory schools under *Universitas Negeri Malang* (State University of Malang) but so far there has not been any study which investigates the competences of the teachers. From the visits and observations to the schools, it was discovered that most of the students inn those schools had good grades in their exams on the three subjects: Science, Mathematics, and English. Most of the students achieved the band of 3 or 4, where 6 is the highest band and 0 the lowest.

The researchers then got curious; what enabled the students to reach the good scores? Was it the teachers? This paper, then, is intended to find out whether or not teachers teaching the content-based subjects (Mathematics, Science and English) are competent. Henceforth, the research problems are stated as follows:

1. How is the professional competence of the teachers in teaching English, Mathematics, and Science in CLIL-Based Instruction?
2. How is the pedagogical competence of the teachers in teaching English, Mathematics, and Science in CLIL-Based Instruction?

THEORETICAL INSIGHTS

The education goal of Indonesian government is to ensure the availability of competent and professional educators through the Regulation for teacher and lecturer No. 14, 2005 which states that teachers are professional educators with the primary task of educating, teaching, guiding, directing, train, assess and evaluate students. Furthermore, article 8 stated that teachers are required to have academic qualifications, competence, certification, education, healthy spiritual body, as well as having the ability to achieve national education goals. As been generally agreed that the output of education should aim at student improvement on achievement that should begin with the teachers' competence in improving student performance (Armour-Thomas, et al. 1989;Ferguson, 1991).

Professional and Pedagogical Competence in Indonesia

Every professional teacher in Indonesia is required to have certain standards of competencies. A professional standard attempts to describe the teachers' belief, knowledge, understanding and ability as specialist practitioners in their fields (Ingvarson, 1998). Some

proposals discussed the educators' standards as means for teacher knowledge and profession of teachers in accordance with quality control and effective professional learning (Darling-Hammond, 2000; Kleinhenz & Ingvarson, 2007). Houston & Howsam (1972) defines competence as adequacy for a task or as possession of required knowledge, skills, and abilities. Meanwhile in the perspective of national education, the government has formulated four types of teacher competence as specified in Law of the Republic of Indonesia Number 14 Year 2005 on Teachers and lecturers, which are pedagogical, personal, social, and professional competences which are obtained through professional education.

Generally speaking, pedagogical competence is the ability to understand the learners, to design curriculum or syllabus, and to actualize the learners into their various potentials. Pedagogical competence can be described as the ability and the will to regularly apply the attitude, knowledge and skills that promote the learning from definite goals and frameworks through continuous development of teaching in the best way. This should be in line with the goals and the existing framework and presupposes continuous development of the teacher's own competence and course design (Ryegard, 2010). It has close connection with three important factors of education, namely educational achievement, professional development and societal change (Suciu & Mata, 2011). While in the National Education standards, the explanation of article 28 verse 3 points out that a pedagogical competence is the ability to manage the learning of students includes an understanding of the learners, the designing and implementation of learning, evaluation results learning, and the development of learners to actualize various potentials. According to Arikunto (1993), professional competence requires teachers to have a broad knowledge and depth of understanding of the subject of teaching and will be taught, as well as mastery of methodology in the sense of having theoretical concepts, ability to choose the right method, and can use them in the learning process. The professional competences mentioned in the Decree of Ministry of Education and Culture of Indonesia No.16, 2007 cover: 1) the mastery of materials, structure, concept and mind set of scientific support of teaching subjects, 2) the mastery of basic standards of competence and the competence of the subjects/ fields of the development of teaching, 3) the ability of developing learning materials, 4) the ability of developing professionalism in a sustainable manner by taking reflective action, and 5) the utilization of information and communication technologies to communicate and develop themselves.

Insights into relevant features of teacher competences can be found in international studies, projects which concerned on teacher education, cognition and teacher effectiveness (Kelly & Grenfell, 2004; González &Wagenaar, 2005; Rachmanjanti, et al, 2015).

CLIL AS THE FOCUS OF THIS STUDY

Teachers' competences are highly demanded in the so-called "CLIL-based Classroom" in which teachers are not only required to be competent in the subject matters but also the linguistic competences. In order to adopt a CLIL approach, in which language and content are integrated, certain pedagogical principles must be address (Coyle, et. al., 2010).

Proficiency in the content should be in harmony with the language proficiency as stated by Coyle, et. al. (2010) and Dale, et. al. (2012) and. Four key principles are vital in CLIL context popularly known as 4Cs: cognition, content, communication and culture. Cognition refers to the teacher's knowledge base. Content, as the term suggests, is about the teacher's ability and mastery in his/her subject matter. Communication is the ability of the teacher in delivering her/his lesson using good communication skills, whereas culture touches upon the norms, values, and beliefs of the target language, in this case English.

CLIL settings is necessary for learners to improve their knowledge both their content learning and their language learning and using. Hence, using the language to learn has equal importance as learning to use the language (Coyle, et. al., 2010). As this study focuses on the examination of teachers' pedagogical and professional competences in CLIL context, the focus of the 4Cs will be on *cognition, content,* and *communication.* In other words, the researchers want to find out how well the subjects master their pedagogical competence in planning, implementing, and evaluating their teaching using English, and also how well they master the professional competence, i.e. their mastery of the subject matter they teach as well as the use of English as the medium of instruction.

METHOD

The design of the study adopted is descriptive quantitative which attempts to describe the teachers' pedagogical and professional competences in the process of teaching and learning English through contents (Gay et al., 2010).The subjects of the study involved were 6 (six) teachers (3 teachers for each subject matter) and 120 students of Grades five and six, 60 for each, in the first semester of the academic year 2014-2015 who had achieved nearly the maximum scores (band 6 of international grading) in English, Math, and Science from 2 (two) private primary schools in East Java, Indonesia. Both the teachers and the learners belong to the so-called 'International Class Program' (ICP) classes in which English is also used as the medium of instruction for other subjects—Mathematics and Science. The students had relatively learned English for three years beginning at Grade 1, consuming 2 times 40 minutes twice a week. Hence, they had acquired the content of those three subjects for at least 3 (three) years. Thus, for this study, the focus is on the teaching of English, Math, and Science since the three previously mentioned subjects are always delivered and internationally examined in English.

To obtain data to respond to the study questions, several instruments were made use; such as documents on the teachers' biodata (including the evaluation sheet of teacher's English proficiency) and the school guideline (syllabi, lesson plans, worksheets), questionnaires for the teachers and the students, a structured interview guide for the ICP coordinator, classroom observation sheets for the instructional process, and a set of test items for the English, Science and Math for the teachers. Each of them was featured by its specific variables and descriptors. For the questionnaire for teachers, it is composed of 5 (five) variables**:** 1)the use of English as a medium of instruction for three subjects (greetings, giving instructions, delivering materials, explaining new concepts, reviewing concepts, using media, giving feedback, questioning and answering, responding, giving assignments, doing reflection, making conclusions, leave-takings, 2). frequency of using English in every meeting and Cambridge class, 3) language proficiency, 4) problems in using English, and e) efforts to improve English.

Whereas, for the questionnaire for the students, there are 3 (three) variables: 1). the use of English as a medium of instruction for three subjects (greetings, giving instructions, delivering materials, explaining new concepts, reviewing concepts, using media, giving feedback, questioning and answering, responding, giving assignments, doing reflection, making conclusions, leave-takings. 2). frequency of using English in every meeting and Cambridge class, and 3) comprehensibility. The classroom observation sheets contain such variables as identity of the subject, pre-activities (explaining learning objectives, reviewing previous lesson), whilst activities (brainstorming, introducing new concepts, suitability of materials to the students' level of competence, methods/strategies and instructional media, teachers' mastery of materials, post activities (reflection and assessment), and supporting factors (communicativeness of the language used, acceptability, gesture, time management). The three

tests: English, Math and Science addressed to the teachers were developed based on the theoretical concepts of Bloom's (1995) incorporating Low Order Thinking Skills (LOTS) and High Order Thinking Skills (HOTS) with the content-based frameworks. The test on English 10 test items covering the integration of Reading and Writing Skills through answering questions based on certain paragraphs and developing a simple essay. The test on Math 34 test items incorporating questions on Numbers, Geometry, and Handling Data. The test on Science has 42 test items covering the integration of three sub subjects, namely Biology, Physics and Chemistry with three kinds of test types- multiple choice (4 items), matching (1),short answers (31) and explanation on inquiry cases (6). Each of which was developed based on about 60% of lower order thinking skills (LOTS) and 40% of high order thinking skills (HOTS) which refer to Bloom's theory (2005) on the cognitive development.

Each of them was analysed accordingly that is the teachers' personal biodata and interview guide were descriptively elaborated, the syllabi, the lesson plans, the worksheets, and the observation sheets, were scored and described , and the tests were scored and analysed in terms content and language. Each descriptor of some instruments was scored 0 (if the observed standard did not exist), 1 (if the observed standard is partly achieved), and 2 (if the observed standard is fully achieved). Afterwards, the final obtained score is converted using the formula: total score divided by maximum score and then multiplied by 100. Thus, for the syllabus, the maximum score is 30 and the minimum score is 0; for the lesson plan, the maximum score is 40 and the minimum score is 0; for the worksheet, the maximum score is 74 and the minimum score is 0; for the observation sheet, the maximum score is 44 and the minimum score is 0; for the English test, the maximum score is 50 and the minimum score is 0; for the Math test, the maximum score is 39 and the minimum score is 0; and for the Science test, the maximum score is 50 and the minimum score is 0.

FINDINGS AND DISCUSSION

The following is the elaboration of the findings obtained from the instruments and discussion of the findings which include the description of the CLIL-based learning models of both schools, the results of analysis on both pedagogical and professional competences of the three subjects matter teachers from both schools.

CLIL-Based Learning Models of Both Schools

Based on the results of interview and observation, it was identified that both schools have similarities and differences in implementing the CLIL-based learning model as seen in Table 1 below.

Table 1: CLIL-Based Learning Models of Schools A and B

Aspects	School A	School B
Curriculum implemented	National on par with International Curriculum (Shared Curriculum)	National on par with International Curriculum (Shared Curriculum)
CLIL approach (Clegg, 2003)	English : Language-led Math : Subject- led Science : Subject- led	English : Language-led Math : Subject- led Science : Subject- led
Materials	National : Government E-book International : Published Course book	National : Government E-book International : Published Course book
Method and Media	Method : 40% Inductive, 60% deductive	Method : 30% Inductive, 70% deductive Media : used 50% of

	Media	: Used in 80% of classroom meetings		classroom meetings
Time Allotment for National Curriculum	English	: 0 hour/ week	English	: 0 hour/ week
	Math	: 6 hours/ week	Math	: 4 hours/ week
	Science	: 4 hours/ week	Science	: 4 hours/ week
Time Allotment for International Curriculum	English	: 4 hours/ week	English	: 4 hours/ week
	Math	: 2 hours/ week	Math	: 2 hours/ week
	Science	: 2 hours/week	Science	: 2 hours/week

Based on Table 1, both schools have implemented shared curriculum, blending the national and international frameworks. By using shared curriculum, learners study selected subject in both first language and in English (Cambridge, 2016). The CLIL approaches were analysed by using Clegg (2003) suggestion. There were two alternative approaches to CLIL, one which *language –led* and another which *subject led.* Language-led tends to import parts of subjects and highlights language development. Subject-led may well exclude language teachers and explicit language teaching. The materials used were also similar for both curricula, yet the published course books used were from different publishers. There were slightly different on the method used and the frequency of using media. School A uses more inductive method than School B and School A uses media more often than School B. The time allotments are similar for both English and Science. Yet, Math gets bigger time allotment in school A.

Results of Teachers Pedagogical Competences

Further, it was discovered that the subject matter teachers (English, Math, Science) in both schools (Schools A and B) scored 60 up to 80 points out of the maximum score 100 for the three kinds of instructional set; syllabus, lesson plan and worksheet, and achieved almost 80 points for the instructional process. The shortcomings varied for each set. Firstly, for the syllabus construction, in general, the teachers lacked detailed information for learning activities, assessment, and learning sources; secondly, the learning objectives in the lesson plan were not completely stated, and there was no modelling in the instructional procedures; and eventually the worksheet did not contain any indicators to be accomplished, and neither pair nor group work was available in doing a task. From the process perspective, the teachers had not fully given opportunities for the students to explore ideas themselves.

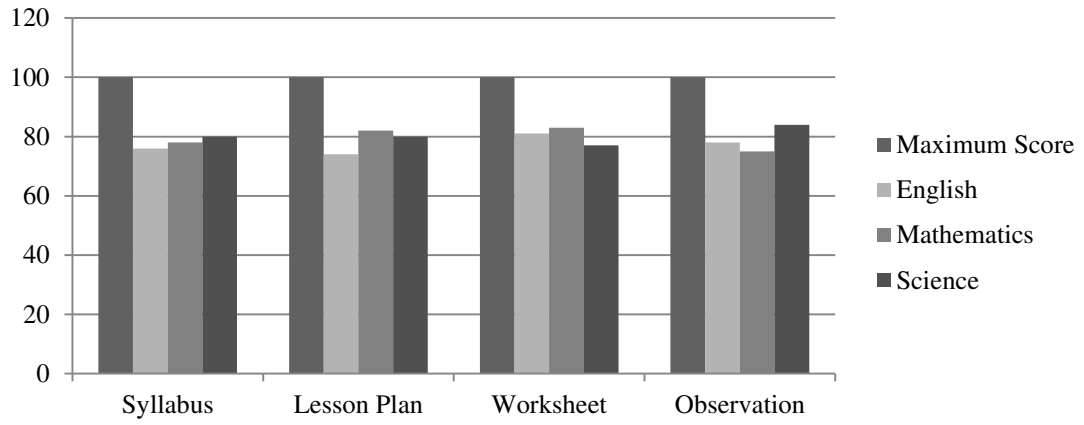

Figure 1: Results of the Analysis of Pedagogical Aspects in School A. Data obtained through observation sheet.

Below is the graph describing the teachers' competences in School B

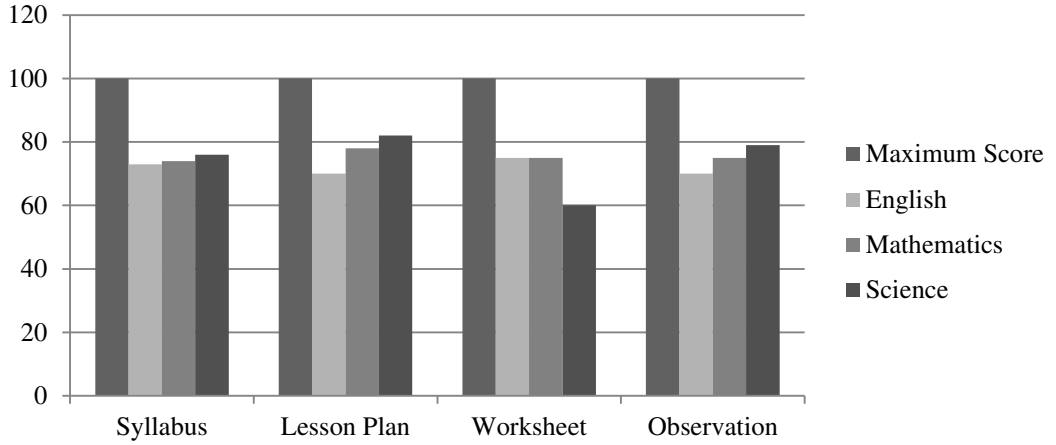

Figure 2: Results of the Analysis of Pedagogical Aspects in School B. Data obtained from instruments for instructional sets

All in all, based on Figure 1 and 2, all teachers have fair pedagogical competence in developing instructional set (syllabus, lesson plan, worksheet), and in conducting instructional process (lack of modeling and inductive way of teaching). As stipulated by Brown (2001), Harmer (2001), Richards (2005) and Piskurich (2006), teachers should be pedagogically well prepared prior to teaching in order to reach at predetermined learning goals.

In the case of math teachers, both teachers have quite similar score which are 77, 5 (School A) and 72.5 (School B). Based on the result of analysis, it was figured out that teacher from school A has been teaching Math for about 4 years and teacher from school B has been teaching Math for about 3 years. Another fact that supports this condition is that the teacher from school A experienced more teacher trainings in using English to teach Math than teacher from School B.

Based on the results of analysis, out of the two subjects, it reveals that 1) both Science teachers (100%) have been teaching for at least two years in Grades VII and VIII right after she graduated from the Department of Physics, Faculty of Math and Science, *Universitas Negeri Malang,* holding a BA certificate. The only short training they joined is the one held by the central government of Indonesia focusing on the procedures of how to employ laboratory instruments.

Further, from the pedagogical perspectives, it was discovered that (1) all science teachers prepared instructional sets (syllabus, lesson plan and worksheet) prior to instructional process, (2) the obtained scores for the instructional sets range from 84 (the highest) to 60 (the lowest), and (3) they attempted to make the students actively involved in the instructional process by conducting a mini experiment using simple instruments (for electricity circuit). The detailed result of analysis of pedagogical aspects is displayed in Table 2 below.

Table 2: Result of the Analysis of Pedagogical Aspects of Science Teachers (Instructional Set)

Subjects	Converted Scores			
	Syllabus	Lesson Plan	Worksheet	Instructional Process
Teacher A	76	82	60	78.4
Teacher B	80	80	77	84

Based on the analysis result in Table 2, we can conclude that (1) the science teachers were fairly competent in developing instructional sets (syllabus and lesson plan) in that some aspects in the sets like identity, formulation of educational goal/indicators, instructional steps, learning sources, instructional media, and assessment were explicitly stated in the planning except that in the worksheet the students were not encouraged to think more critically and asked too many questions due to unclear instructions; (2) for the worksheets, they lacked competences reflected by the indicators of what the students should achieve as well as instructions so the students were not well informed of what to do - whether they had to work individually, pair or group.

As mentioned by Harmer (2001), Richards (2005) and Piskurich (2006) any successful instructional process requires well-set instructional planning which teachers will benefit in any teaching and learning context including in the CLIL-based practices to reach at predetermined learning outcomes. In a CLIL class, according to them, the students should be pushed to think about the content and at the same time about learning in general.

Results of Teachers Professional Competences

The results of teachers professional competences obtained through the designed test for teachers and observation sheet. The result of analysis on prefessional competence can be seen on Figure 3.

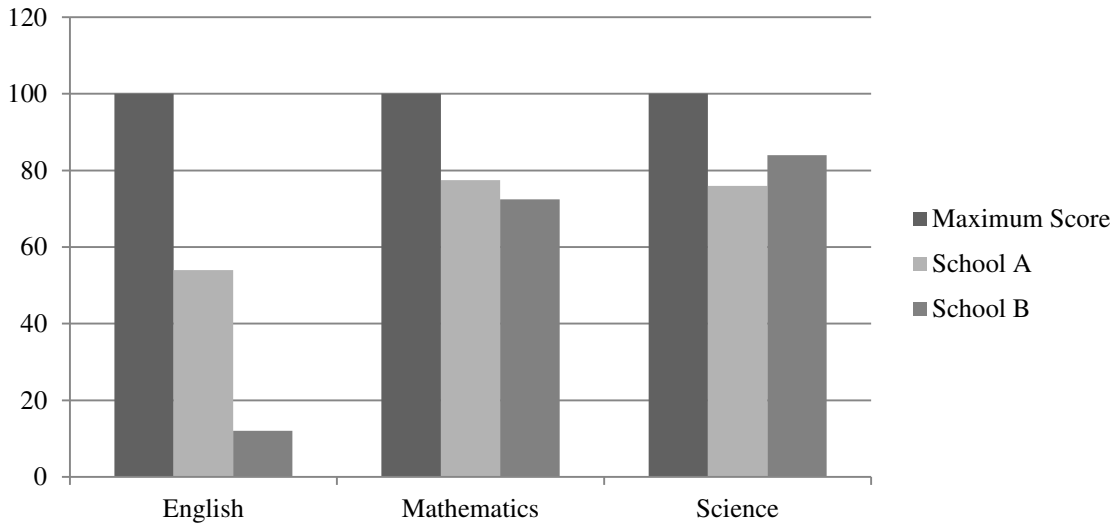

Figure 3: Results of the analysis on professional competence

From the results of English and Math teachers, it was obvious from the graph that the English and Math teachers in School A got better achievement than the one in School B in the professional competence.

Subjects/Converted Scores	Language Competence	Mastery of the Subject Matter	
		Sufficient	Not Sufficient
Teacher School A/76	Having a few mistakes in constructing words, phrases, and sentences	31 out of a total 42 (dealing with Biology, Physics, and Chemistry	11 items out of a total 42 dealing with the concepts of Biology (the concept of human body system, making inferences), Physics (about the concepts of electrical circuit,

			force), Chemistry (making inferences)
Teacher School B/60	Having more mistakes in constructing words, phrases, and sentences	27 out of a total 42 (dealing with Biology, Physics, and Chemistry)	15 items out of a total 42 dealing with the concepts of Biology (making inferences, the concept of human body system), Physics (about the concepts of electrical circuit, force the act of force), Chemistry (making inferences from a table, describing concepts)

On the other hand, from the professional viewpoint, the **two** science teachers indicated different levels of mastery in both language and content. Table 3 shows the result of analysis of the teachers' competences, ranging from 84 (the highest) to 44 (the lowest).

Secondly, in terms of language mastery all teachers still had problems in constructing simple nonverbal expressions like the use of tenses, for instance: *bread cannot changed/ changes back to water*, *salt made from water*, *... the current of electricity flow into the material*; the construction of passive voice like *the temperature will be increase, ...*; the production of complex sentences and use of punctuation in the sentences; missing auxiliaries in sentences like. *the temperature not constant, lamp not on*; misspelled words like ... *make conclution, stomatch.*

Hence, the teachers' inadequate proficiency has been verified by the students' opinions that the teachers used simple English as a medium of instruction during the instructional process except for reviewing the previously explained concepts, asking questions and responding to students' questions. Also, they did not use English in every session. It goes without saying that science CLIL teachers are required to be qualified in both language and content, no matter what CLIL model is implemented in class. The roles of language in CLIL have as great value as content in that the teachers are required to be familiar with grammar/structure, various vocabulary and language functions to transfer the subject matter content. The specific tasks given should use contain grammar structure, vocabulary and subject-related language functions (Harmer, 2012; Coyle et al., 2010; Dale et al., 2012).

CONCLUSION

In general, all teachers have less than five years of experiences in teaching. Since the elementary teachers in Indonesia are required to graduate from Primary Education Department, their educational backgrounds are not fully linear to teach CLIL subjects. All in all, the six teachers from both schools are considered competence in pedagogical aspect, yet claimed as fairly competence in professional aspect. It was due to the fact that some teachers need more effort to develop themselves in terms of skills in language and knowledge on content. At last, the results of observation elicit information that CLIL model instructions in both schools need to be improved.

REFERENCES

Arikunto, S. 1993. *Manajemen pengajaran secara manusia*. Jakarta: Rineka Cipta

Armour-Thomas, E.C. Clay, R. Domanico, K. Bruno, & B. Allen. 1989. *An Outlier Study of Elementary and Middle Schools in New York City: Final Report*. New York: New York City Board of education.

Bloom, B.S. 1994. *Yearbook of the National Society for the Study of Education* (Chicago: National Society for the Study of Education) 93 (2).

Brown, H.D. 2001. *Teaching by principles: an interactive approach to language pedagogy (*2nd Ed). New York: Longman.

Cambridge. 2016. *Implementing the curriculum with Cambridge – A guide for school leaders.* Cambridge International Examination. Retrieved from http://www.cie.org.uk/images/134557-implementing-the-curriculum-with-cambridge.pdf

Clegg, J. 2003. The lingue E Scienze project: Some Outcomes, in *Quardeni Publicati 6.* Tprino: Ufficio Scolastico Regionale per il Piemonte.

Coyle, D., Hood, P., & Marsh, D. 2010. *CLIL: Content and language integrated learning.* Cambridge, England: Cambridge University Press.

Dale, L. & Tanner, R. 2012. *CLIL activities; A resource for subject and language teachers*. Cambridge: Cambridge University Press.

Darling-Hammond, L. 2000. *Studies of excellence in teacher education* (Ed.). Washington DC: American Association of Colleges for Teacher Education.

Decree of Ministry of Education and Culture of Indonesia Number 060 Year 1993

Decree of Ministry of Education and Culture of Indonesia Number 20 Year 2003

Decree of Ministry of Education and Culture of Indonesia Number 14 Year 2005

Decree of Ministry of Education and Culture of Indonesia Number 16 Year 2007

The EFA Development Index (EDI). 2012. *Education for All Global Monitoring report* http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/gmr2012-report-edi.pdf.

European Language Policy and CLIL. 2003. European language policy and CLIL - *A selection of EU-funded project.* Retrieved from http://www.ua.gov.tr/docs/avrupa-dil-%C3%B6d%C3%BCl%C3%BC/finarep_en.pdf?sfvrsn=2

Ferguson, R. 1991. Paying for public education: New evidence on how and why money matters. *Harvard Journal of Legislation*, 28 (2): 465–498.Summer, 1991).

Gay, L.R., Mills, G.E. & Airasian, P. 2009. *Educational research: Competencies for analyisis and application (7th ed.)* Upper Saddle River, NJ: Pearson

Gonzalez, J. & Wagenaar, R. (Eds.) 2005. Tuning Educational Structures in Europe II. *Universities' contribution to the Bologna Process*. University of Deusto & University of Groningen. Retieved from http://tuning.unideusto.org/tuningeu/

Harmer, J. 2001. *The practice of english language teaching.* Harlow: Pearson Education United.

Houston, W. Robert and Howsam, R.B. 1972. *Competency-Based Teacher Education: Progress, Problems and Prospects*. Chicago: Science Research Associates, Inc.,

Ingvarson, L. 1998. *Professional standards: a challenge for the AATE? English in Australia,* (122): 31-44.

Law of the Republic of Indonesia Number 14 Year 2005 for Teachers and Lecturers

Kelly, M. & Grenfell, M. 2004. European Profile for Language Teacher Education. *A Frame of Reference*. University of Southampton, UK.

Kleinhenz, E. & Ingvarson, L. 2007. Standards for Teaching. *Theoretical Underpinnings and Applications*. New Zealand Teachers Council. www.teacherscouncil.govt.nz/ communication/publications/research0012.pdf

Piskurich, G. 2006. *Rapid instructional design.* San Francisco, CA: John Wiley & Sons.

Rachmajanti, S., Zen, E.L., & Apriana A. 2015. *Using English In Science Class As An Attempt To Maximizing Input In Second Language Learning.* Vietnam: TESOL Conference 2015. Retreived from: http://www.vnseameo.org/TESOLConference2015/Materials/Fullpaper/Dr.%20Sri%20Rachmajanti%20+%20Ms.%20Evynurul%20Laily%20Zen%20+%20Ms.%20Aulia%20Apriana.pdf

Richards, J.C. & Farrell, T. 2005. *Professional development for language teachers*. New York: Cambridge University Press.

Ryegård, Å. 2010. *A swedish perspective on pedagogical competence*. Uppsala: Uppsala University.

Suciu, A.I. & Mata, L. 2010. Pedagogical Competences –The Key to Efficient Education. *International online journal of educational sciences*, 2011, 3 (2): 411-423

Wolff, D. 2007. *CLIL: Bridging the gap between school and working life*. In D. Marsh & D. Wolff (Eds.), Diverse contexts—converging goals. CLIL in Europe (pp. 15–25). Frankfurt am Main, Germany: Peter Lang

Pre-Motivational Study Based Arcs (Attention, Relevance, Confidence, and Satisfaction) at Biology Education Students at Physiology Animal Lecture

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Abstract: The study motivation will influence the success of student in studying. ARCS model is one of approach which can be used to know the level of students motivation in studying. Four aspect of motivation elements are attention, relevance, confidence, and satisfaction. This research is aimed to know the level of biology education student's motivation at physiology animal lecture. The method used is descriptive quantitative by survey method in this case by using questionnaire of students motivation. This research is holding on April 2016. The subject of the research is 168 students from UIN Alauddin Makassar, UPRI Makassar, and STKIP PI Makassar. The result of the research showed that biology education students' motivation are on the rate 61.44 for attention aspect, 60.26 for relevance aspect, 57.01 for confidence aspect and 61.80 for satisfaction aspect. So, the student's motivation at physiology animal lecture should be improved.

Keywords: study motivation, ARCS, physiology animal.

Learning motivation is very important in learning (Wlodkowski, 2008), it is one of the factor which give significant contribution to academic achievement (Yusuf, 2011). Motivation gives influence to the student's feedback and how to apply it in improving memory power and students improvement in learning (Paswcue & Tricomi, 2015), product quality and learning process (Figuera & Duarte, 2011).

The difference of academic success seems real for students which have preference in learning motivation as learning focus and their social need (Kocakoglu, *et al.*, 2010). Motivation acts as supporter, mover in learning, control, perseverance and persistence in students action (Tohidi & jabbari, 2012) students with low motivation incline has a low academic achievement too (Sugondoro, 2015), easy to get hopeless and avoid challenge (Hamjah, *et al.,* 2010). Learning motivation becomes the key aspect of personal improvement and students' professionalism in the higher educational rule (Kozlova & Atamanova, 2013).

Students with their intrinsic motivation have insting to have competence and self-regulation action. This action comes from experience which includes exploration, creativity curiosity, and asking question. Students that can handle the action of their learning action will show the following skills: self-planning, effective time management, designing and arranging procedure to follow investigation, designing procedure to accomplish the assignment, evaluating their self-project through reflection (Llewellyn, 2011).

Motivation can act as learning empowerment if the students in the case of facing problem solving, and only can be solved by helping or case that they have ever faced. Students need to have strong willpower, optimist to think of next time to reach learning objective and answer global challenge. Some educational research shows that there is a significant positive relation between learning motivation and students' academic achievement (Lim, 2009; Kusboantor, 2014; Hatmalyakin, 2015).

Students learning motivation at animal physiology lecture in 2015/2016 at UIN Alauddin Makassar by using conventional strategy those students got A about 42.85%, B 30.15%, C

26.98%, D and E 0%. While in *STKIP Pembangunan Indonesia Makassar* by using conventional strategy that students got A about 14.83%; B 54.66%; C 19.07%; D 10.59%; and E 0.85%; while at UPRI Makassar by using conventional strategy that students got about A about 12.97%; B 38.89%; C 24.07%; D 14.81% and E 9.26%. This case shows that it is needed to identify and optimize the students' concept through learning motivation.

According to Badura (2001) motivation is an action that is directed to reach the goals, which is initiated and maintained by consequence willing, related to consequence which is anticipated by some actions and self-effectiveness to do that case. From the motivation perspective theory, consequence award is important, because students think of potential results for that they are doing, and keep action for what they believe will resulting valuable consideration. The students that are motivated academically believe that if they are diligent to study, so they will have good academic score. By respecting academic value, we should guess they will study hard, so it will validated their expectation (Schunk, *et al.,* 2012).

Keller (2010) said that ARCS learning model focused on the realization and motivation strategy maintenance used at instructional design. Attention aspect, students' attention supported by curiosity. So, this curiosity need to have stimulation so the students will give attention, and the attention is maintained during teaching and learning process, even longer. According to Margueratt (2007) attention refers to is the curiosity of the students stimulated and is it continued properly time by time. This curiosity can be stimulated by new, strange and different element than previously. If those elements put in learning design, it will stimulate students' curiosity. But, we should keep attention for not doing it much because it will decrease the effectiveness of the model (Keller, 2010).

Relevance aspect shows there is a relation between lecturing material and students need and condition. Motivation will maintained if they consider what they are learning accomplish their personal need, and useful and suitable with the handing value. Learning will hand value. Learning will be relevant for students if the concrete examples related to their experience are given to them (Driscoll, 1994).

Confidence aspect, having competence or ability is the potential to have interaction positively with the environment. This concept related to self-confidence of students that they have something to do the assignment as requirement to get success. Related principle in this case that motivation will improve as the willingness to success is also improved. Motivation resulting perseverance which bring them to success (achievement), and next the success experience will motivate the students to d the next assignment. When someone believes, they are able to do something so she/he will improve the effort to do something else (Pintrich dan Groot, 1990).

Satisfaction aspect, success in achieving the goal will result the satisfaction and students will be motivated to try on and on to reach the same goal. The satisfaction because of reaching the goal is influenced by receptive consequence, whether it comes from outer or inner of the students self. Motivation model which is used to improve the student's satisfaction can be a verbal reinforcement, award, personal attention, feedback and deliberately avoid negative influence (Keller & Suzuki, 2004).

According to the background, so the research problem is how the motivation of Biology education students at animal physiology lectures. The goal of the research is to know how far is the motivation of Biology education students at animal physiology lecture, as an effort to improve learning quality, improve study result and rich learning experience. The result of this study is used by the researcher to apply learning model or certain learning strategy to improve student's motivation especially at Biology education program.

RESEARCH METHOD

This research is descriptive research by survey method (Cimer, 2012). This research is hold on April 2016 at *Tarbiyah* Faculty, UIN Alauddin Makassar; FKIP, UPRI, Biology Education department, STKIP *Pembangunan Indonesia* (PI) Makassar. Research sample determination is done randomly. The following shows research sample distribution used.

Table.1 Research Sample

No	University	Respondent
1	UIN Alauddin Makassar	• Bio 1-2 = 27 students • Bio 3-4 = 34 students
2	(UPRI) Makassar	• Bio A = 32 students • Bio B = 28 students
3	STKIP Pembangunan Indonsia (PI) Makassar	• Bio A = 17 students • Bio B = 31 students
	Respondent	**169** students

Research instrument used is learning motivation to animal physiology lecturing, with total question 52 numbers. The statements at the questionnaire consists as positive and negative statements, by respectively include *attention, relevance, confidence,* and *satisfaction* aspect. Attention aspect consist of 14 questions (7 positive statements and 7 negative statements) relevance aspect consist of 14 questions (7 positive statements and 7 negative statements) *confidence* aspect consist of 10 questions (5 positive statements and 5 negative statements) and *satisfaction* aspect consist of 14 questions (7 positive statements and 7 negative statements).

The questionnaire used likert scale, the assessment for question with positive criteria: score 1 = extremely disagree, score 2 = disagree, score 3 = doubt, score 4 = agree, score 5 = extremely agree. While for the statement with negative criteria: score 1 = extremely agree, score 2 = agree, score 3 = doubt, score 4 = disagree, score 5 = extremely disagree.

Data result research is analyzed quantitatively by using descriptive statistics, to know average score of students learning motivation (M) at single criteria with:

$$(M) = \frac{total\ score\ of\ learning\ motivation}{Amount\ of\ students\ x\ amount\ of\ item}$$

Average score is grouped in five category namely: 1,00-1,49 (not good); 1,50-2,49 (less good); 2,50-3,49 (enough good); 3,50-4,49 (good); 4,50 – 5,00 (very good) (Adnan, 2012).

RESEARCH RESULT

The Description of Learning Motivation at Students of Biology Education UIN Alauddin Makassar

Questionnaire result related to learning motivation at the lecturing of UIN Alauddin Makassar at table 2.

Table 2. The Recapitulation of Learning Motivation Questionnaire at Biology Education Study Program UIN Alauddin Makassar

No	Class	Motivation Aspect											
		Attention			*Relevance*			*Confidence*			*Satisfaction*		
		Motivation Average	Average Category	Score	Motivation Average	Average Category	Score	Motivation Average	Average Category	Score	Motivation Average	Average Category	Score
	Bio 1-2	2,60	Good Enough	51,96	2,32	Good Enough	46,46	2,24	Less good	44,89	2,55	Good Enough	50,95
	Bio 3-4	2,86	Good Enough	57,23	2,94	Good Enough	58,87	2,54	Good Enough	50,82	3,00	Good Enough	60,00
		2,73	Good Enough	54,59	2,63	Good Enough	52,67	2,39	Less good	47,86	2,78	Good Enough	55,48

The Description of Learning Motivation at Students of Biology Education UPRI Makassar

Questionnaire result related to learning motivation at the lecturing of UPRI Makassar at Table 3

Table 3 The Recapitulation of Learning Motivation Questionnaire at Biology Education Study Program Universitas Pejuang Republik Indonesia

No	Class	Motivation Aspect											
		Attention			*Relevance*			*Confidence*			*Satisfaction*		
		Motivation Average	Average Category	Score	Motivation Average	Average Category	Score	Motivation Average	Average Category	Score	Motivation Average	Average Category	Score
	A	2,54	Good Enough	50,89	2,48	Less good	49,69	2,38	Less good	47,69	2,50	Good Enough	50,00
	B	2,68	Good Enough	53,57	2,65	Good Enough	52,96	2,66	Good Enough	53,14	2,48	Less good	49,69
		2,61	Good Enough	52,23	2,57	Good Enough	51,33	2,52	Good Enough	50,42	2,49	Less good	49,85

The Description of Learning Motivation at Students of Biology Education STKIP PI Makassar

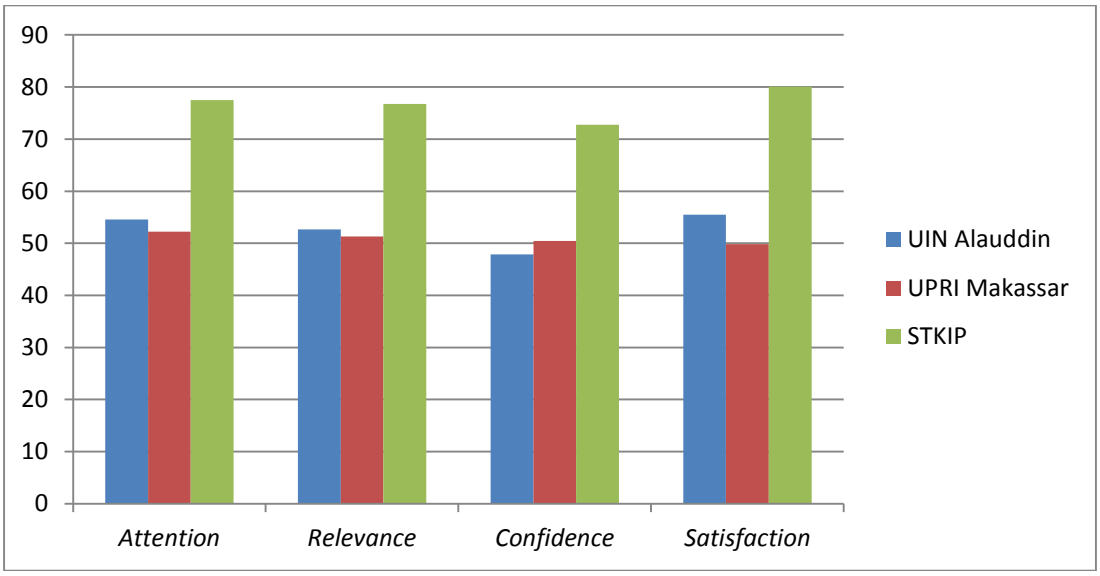
Questionnaire result related to learning motivation at the lecturing of STKIP PI Makassar at Table 4.

Table 4 the Recapitulation of Learning Motivation Questionnaire at Biology Education Study Program STKIP PI Makassar

No	Class	Motivation Aspect											
		Attention			*Relevance*			*Confidence*			*Satisfaction*		
		Motivation Average	Average Category	Score	Motivation Average	Average Category	Score	Motivation Average	Average Category	Score	Motivation Average	Average Category	Score
	A	3,90	Good	77,98	3,85	Good	76,97	3,57	Good	71,41	4,02	Good	80,34

B	3,85	Good	77,00	3,83	Good	76,59	3,70	Good	74,06	3,99	Good	79,82
	3,87	Good	77,49	3,84	Good	76,78	3,63	Good	72,73	4,01	Good	80,08

The recapitulation of learning motivation score at *Attention, Relevance, Confidence,* and Satisfaction aspects at Biology education students at animal physiology lecture shows at Picture 1.



Picture 10 The Graph of Learning Motivation Aspect Score *Attention, Relevance, Confidence,* and *Satisfaction* at Biology Education Students at Animal Physiology Lecture.

DISCUSSION

Motivation to study is inclination of students to consider academic activity valuable, useful and try to get the advantage of academic. The motivation to study can be interpreted as general trait or situation-specific state (Adnan, 2012). The result of data analysis that students learning motivation at attention, relevance, and satisfaction aspect of UIN Alauddin Makassar students are on the good enough category. But, this relevance aspect should be improved, especially at the relation between material and students need.

Whole for confidence is aspect at the less good category. If it is reviewed, there are some factors which causes the less of confidence aspect, they are: (1) the opinion that animal physiology material is difficult to understand than other lectures; (2) the opinion that material presented in learning consist of much information so it become difficult to get the important ideas and remembering them, (3) the organization of material presented in learning and books seems complicated and not systematic.

Having competence and competence is the potency to have interaction positively with the environment. This concept related to the self-confidence of students that they have something to do the assignment as success requirement. The principle here is that motivation will improve in line with the improvement of the willingness to success. This case is often influenced by success experience last time. So, there is a spiral relation between success experience and motivation, and the next success experience will motivate students to do the next assignment. When someone believes, they are able to do something so she/he will improve the effort to do something else (Byman, *et al.*, 2012).

Students learning motivation UPRI Makassar at *attention*, *relevance*, *confidence* aspect is in the good enough categories, while less good category for satisfaction aspect. Some factors which causes the students having less motivation: the students are less spirit to aspect is in the good enough category, while less good category for satisfaction aspect. Some factors which cause the students having less motivation: (1) the students are less spirit to learn the material continually, (2) learning strategy used is still dictated and speech, (3) learning resource and environment are not effective.

Educator should give interpersonal support and give the chance in creating autonomy climate for students in actualizing themselves to the point which give more energy in learning process (Reeve & Yu-Lan, 2014). According to Harmawati (2010), the success of lecturer in teaching learning process must be supported by their personal, such as: sympathetic and interesting, lithe, wise and simple in action. The lecturer must be sympathetic and interesting in explaining the material for the sake of students groove. Lecturer and educator as motivator should improve educational interaction pattern so it can grow and improve learning motivation so the learning achievement can be reached optimally. Educator or lecturer is the one that has the main role in learning process. A lecturer should able to improve some innovative learning model because the students learning success is also influenced by the lecturer strategy to manage the learning process (Kusbiantoro, 2014).

Learning motivation of STKIP PI Makassar at attention, relevance, confidence, and satisfaction aspect are on the good enough category. Motivation in learning activity is the power supporter for students in using their potential to realize learning goal. Although attention, relevance, confidence, satisfaction aspect are on the good enough category, but questioning activity of students is still low. The braveness in giving questions or statement is believe that they are able to do certain assignment or can be valued as believe to do something in certain situation successfully. In class observation, it can be identified that the level of self-confidence to give the questions still dominated by students which have superior academic level. So, we need a strategy to improve self-confidence of students for high, middle and low students.

The low motivation is the problem in learning because it gives the influence to the achievement of learning result (Aunurrahman, 2009). Brophy (2004) states that there are five factors that influence learning motivation, educators' expectation, direct instruction, suitable feedback, reinforcement, reward and punishment. In motivation analyzing, it is important to identify motivation difference and realize that the problems may be different in one subgroup and others. This is also important to identify some positive factors. A motivation system must be able to solve the motivation problem, and have the ability to maintain the level of motivation expected. Output from the analysis shows motivation differences must be closed and satisfying motivation must be maintained (Keller, 2000).

The interview result and observation done by the researcher at Universitas Islam Negeri (UIN) Alauddin Makassar; Universitas Pejuang Republik Indonesia (UPRI); Biology Education department; STKIP Pembangunan Indonesia (PI) Makassar, the information wholly as the following: (1) the students attention to join the learning process is still low; (2) students are not able to relate the learning material with the case or process related to daily life, yet; (3) only some students that have the braveness and confidence to show their opinion in class discussion; (4) only some students realize the importance of the material; (5) the questions only come from high level students, while others are still passive.

Humanistic perspective stresses the student's capacity in developing personality, the freedom to choose their fate. Maslow view related to the humanistic perspective, self-actualization is the highest need and difficult so they have to be given special attention because self-actualization is the motivation to develop self-potential wholly as human. Most of people are stop to be adult after they develop high level pride and never arrive to self-actualization.

But, some people have different opinion with Maslow that for some students, cognitive need is more fundamental than pride need (Santrock, 2007).

Keller compose five strategies to stimulate and maintain the students interest and curiosity: (1) the use of new, conflict or paradox case or event; (2) using anecdote and other ware, that develop emotional unsure that is related to intellectual or procedural thing; (3) giving chance to study more about what they have known and interests in it, but they also give them moderate different dosage, (4) using analogy, (5) guide students in generation process of question and inquiry (Brophy, 2004).

Uno (2007) states that there are some motivation techniques which can be used in learning, they are (1) arising curiosity; (2) using known material by students as example in learning; (3) seeing students to use the cases that they have learned previously; (4) explain learning goal to be achieved; (5) reporting the work result achieved; (6) making competing nuance healthy among students; (7) giving the chance to students to show their skill to public.

The implementation of motivation assessment is also urgent to be held because motivation gives the impact to learning achievement. Learning motivation contributes significantly and positive as 19% to learning result. Motivation can influence the one learning result because motivation can direct, and support human to the action direction, include learning action, so that learning achievement can be achieved (Mudjiono & Dimyati, 2009). The one who have high motivation will expedite the learning process so they can achieve maximal learning result and otherwise. In some educational research were shown that there is significant positive relation between learning motivation and academic achievement of students (Lim, 2009; Kusboantor, 2014; Hatmalyakin, 2015).

Conclusion, Suggestion and Thank You-Note

According to research result and data analysis so the conclusion in this research is the students learning motivation of Biology education students in Makassar about 61.44 for attention aspect, 60.26 for relevance aspect, 57.01 for confidence aspect and 61.80 at satisfaction aspect. So, the students learning motivation at animal lecture should be improved.

This research result can be a guide for the researchers their selves and the next researcher to improve learning motivation through the refinement of learning process and learning strategy actively and constructively. Thanks to the head of department, the head of study program and all lecturers at Biology education program at coorfidator of study program and all the lecturers at Biology study program that exist at Universitas Islam Negeri (UIN) Alauddin Makassar; Universitas Pejuang Republik Indonesia (UPRI); STKIP Pembangunan Indonsia (PI) Makassar for the participation as respondents and help in data collection.

References

Adnan, F. Marliyah, S. Studi Motivasi Siswa SMP dan Sederajat di Kota Makassar pada Mata Pelajaran IPA Biologi. *Jurnal Bionature,* 13(2): 103-107.

Aunurrahman. 2009. *Belajar dan Pembelajaran*. Bandung : Alfabeta.

Bandura, A. 2001. Socisl Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology,* 52, pp 1-26.

Brophy, J. 2004. *Motivating Students to Learn.* New Jersey: Lawrence Erlbaum Associates

Byman, R., Lavonen, J., Juuti, K., Meisalo, V. 2012. Motivational Orientations in Physics Learning: A Self-Determination Theory Approach. *Baltic Science Education*, 11(4), pp 379-392.

Djamarah & Zain. 2002. *Strategi Belajar Mengajar.* Jakarta: Rineka Cipta.

Driscoll, B.J. 1994. *Psychology of Learning for Instruction.* Needham Heights, MA: Allyn & Bacon.

Figuera, A.I., Durate, M. 2011. Increasing the Quality of Learning through Changes in Motivation. *Procedia Social and Behavioral Science,* 29: 1373 – 1379.

Hamjah, S.H., Rasit, R.M., Rozali, E.A. 2010. Methods of Increasing Learning Motivation Among Students. *Procedia Social and Behavioral Sciences,* 18: 138–147.

Hatmalyakin, 2015. *Hubungan Motivasi dalam Memilih Program Studi keperawatan dengan Prestasi belajar pada mahasiswa Keperawatan Angkatan 2014 Fakultas Kedokteran Universitas Tanjungpura Pontianak.* Pontianak: Universitas Tanjungpura.

Keller, J.M. 2000. *How to Integrate Learner Motivation Planning into Lesson Planning: The ARCS Model Approach.* Paper presented at VII Semanario, Santiago, Cuba.

Keller, J.M. & Suzuki, K. 2004. *Learner Motivation and E-Learning Design: a Multinationally Validated Process.* Journal of Educational Media, 29(3), pp 229-239.

Keller, J.M. 2010. *Motivational Design for Learning and Performances: The ARCS Model Approach.* USA: Instructional Systems Program. Florida State University.

Kocakoglu, M., Turkmen, L., Solak, K. 2010. Motivational Styles in Problem-Based Learning. *Procedia Social and Behavioral Sciences,* 2: 615–619.

Kozlova, N.V., Atamanova, I.V. 2013. The Development of Undergraduates Motivation for Research Work. *Procedia Social and Behavioral Sciences,* 93: 498 – 502.

Kusbiantoro, D. 2014. Hubungan Motivasi Belajar dengan Prestasi Belajar Mahasiswa Semester 1 Program Studi Ilmu keperawatan STIKES Muhammadiyah Lamongan Tahun Akademik 2013/2014. Surya, 1(17).

Lim, D.H., & Morris, M.L. 2009. Learner and Instructional Factors Influencing Learning Outcomes within a Blended Learning Environment. *Educational Technology & Society*, 12(4), pp 282–293.

Llewellyn, D. 2011. *Differentiated Science Inquiry.* California: Corwin a Sage Company.

Paque, D.S., Tricomi, E. 2015. Effects of Intrinsic Motivation on Feedback Processing During Learning. *NeuroImage, Procedia Social and Behavioral Sciences,* 119: 175–186.

Pintrich, P.R., & De-Groot, E.V. 1990. Motivational and Self-Regulated Learning Components of Classroom Academic Performance. *Journal of Educational Psychology,* 82(1), pp 33–40.

Purwanto, M. 2002. *Psikologi Pendidikan.* Bandung: Remaja Rosdakarya.

Reeve, J. and Yu-Lan, S. 2014. *The Oxford Handbook of Work Engangement, Motivation, and Self-Determination Theory, Edited by Marylene Gagne.* New York: Oxford University Press.

Santrock, J.W. 2007. *Psikologi Pendidikan (Terjemahan) Edisi Kedua*. Jakarta: Kencana Prenada Media Group.

Schunk, D.H., Pintrich, P.R., Meece, J.L. 2012. *Motivasi dalam Pendidikan: Teori, Penelitian dan Aplikasi Edisi Ketiga.* New Jersey: Pearson Education.

Slameto. 2003. *Belajar dan Faktor-Faktor yang Mempengaruhinya*. Jakarta: PT. Rineka Cipta.

Soeharto. 2003. *Pendekatan dan Teknik dalam Proses Belajar mengajar.* Bandung: Tarsito.

Soekamto dan Winataputra. 1997. *Teori Belajar dan Model-Model Pembelajaran*. Jakarta: Ditjen Dikti Depdikbud.

Syafsensi, I. 2013. Kontribusi Motivasi Belajar terhadap Hasil Belajar Mata Pelajaran Gambar Bangunan Siswa SMK Negeri Solok. *Jurnal CIVED, (online),* Vol.1, No.1, (http://ejournal.unp.ac.id, Diakses 2 April 2016.

Tohidi, H. dan Jabbari, M.M. 2012. The Effects of Motivation in Education. *Procedia Social and Behavioral Sciences,* 31: 820 – 824.

Uno, H.B. 2007. *Teori Motivasi dan Pengukurannya*. Jakarta: Bumi Aksara.

Winkel, W.S. 2004. *Psikologi Pengajaran.* Jakarta: PT.Grasindo.
Wlodkowski, R.J. 1985. *Enhancing Adult Motivation to Learn*, San Francisco: Jossey-Bass.
Yusuf, M. The Impact of Self-Efficacy, Achievement Motivation, and Self-regulated Learning Strategies on Students Academic Achievement. *Procedia Social and Behavioral Sciences,* 15: 2623–2626.

Exploring the Values of Guidance and Counseling in *Tebe* on Perspective of the PS

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Abstract: The purpose of this article is to explore the values of guidance and counseling in tebe of Luro society, Timor Leste. Method of descriptive analyses on perspective of the PS was used. Interview and observation was using to collect the data. Observation and interviewing was done in Luro society and with three cultural leaders, during attending community cultural celebration a long June and July 2016. The result was found that there are values of GC in *tebe*. It means *tebe* can be used as instrument of group GC in school and in society.

Keywords: exploring, guidance and counseling, *Tebe*, PS

Process of exploring the values of Guidance and Counseling (GC) in *tebe* (traditional dance) in Luro society of Timor Leste (TL) based on Philosophy of Science (PS). This studyi is a new breakthrough in multiplying the values of GC in TL's local wisdom. Local wisdom is referred local culture containing the noble values enshrined together. Culture is a way of life that developed and owned by a group of human being in specific area. It was handed from a generation to the next. Culture is built up of lot elements, including the system of religion, politics, customs, languages, tools, clothing, buildings, dancing and works of art (Supriyanto, 2013).

The *tebe* is a traditional group dance of Luro community of TL to express the creativities, joyous, sadness of the feelings and experiences as defined in the Constitution (RDTL, 2002, Art. 59) that "everyone has right to cultural enjoyment and creativity and the duty to preserve and protect value cultural heritage". Every citizen of TL has right to express their cultural happiness including *tebe*. *Tebe* is usually done in the group by singing some traditional song which is leaded a *tebe* leader (soloist in tebe). The entire participants were repeating the part of repetition.

Contain of *tebe* can expressed joyous, sadness experiences, teaching and guiding of life for the society members specially youth. However up now there are no initiatives yet to explore the values which were exist in *tebe*, such as togetherness, supportiveness, harmonious, discipline, openness, encouraging, education, teaching, entertaining, voluntariness, sharing, equality, dynamic, unity, skillful. Therefore this study try to find those values can be explored to find the conjunction between those values and GC values in *tebe.* Because after having *tebe* participants seemed relaxed, motivated and struggle to face the future. When it seems closely, be found that those values are similar with goals of guidance and counseling, which is to help individual and groups to find the way to achieve development objectives such as individual virtuous, noble of community life, and trusting fear of God in accordance with their belief and religion.

PROBLEM FORMULATION

Based on the exploration and of study can be formulated several issues as following: (1) what is the GC? (2) Why exploring the values of GC in *tebe*? (3) What *tebe* is? (4) How *tebe* is done? (5) Why values of GC need to be exploring in perspective of PS? (6) What PS is? (7) What Luro society is?

OBJECTIVE DISCUSSION

The study has several objectives: (1) to explore and discover the values of GC in *tebe* as cultural wisdom on PS's perspectives. (2) to enrich the aspects of knowledge, understanding and awareness of readers in regards to the wisdom which existed in *tebe* as a local wisdom of Luro society of TL. Knowledge and a good understanding of the local wisdom will facilitate and provide the opportunity for individual and groups to explore and to discover more values in regards to the values of GC on perspective of PS in *tebe*. (3) One way of conserving and developing a local wisdom of Luro society in TL. Considering it as an instrument of serving of the group GC been formulated in writing. (4) raised the noble values implicitly and embodied in *tebe* is mainly shared values, equality, unity, mutual listening, respecting, supporting, sharing, encouraging, entertaining, teaching and learning and openness of those basic values based on the PS.

ASSESSMENT ON VALUES OF GC IN *TEBE*, BASED ON PS

The Values GC

The values of GC are essential to facilitate the counselee to be able to develop their potential to achieve the task of development (physical, emotional, intellectual, social, moral and spiritual) (Depdiknas, 2008). Been described GC within education systems is having an important role to play in laying the foundations for life long carrier development, including knowledge and competencies regarding self-awareness, the world of work and making decisions and transitions. It means that guidance services is to assist individuals, of any stage of age and at any point throughout their lives to make educational, training and occupational choices and to manage their carriers the current moment unto the future (OECD, 2002). Being believed that guidance counseling can be a cost-effective benefit, delivering real economic, social, education, moral benefits to society (Institute of Guidance Counselors, 2015). Counseling is the skill and principle of using relationships to develop self-knowledge, emotional acceptance and growth (Tindi & Silsil, 2008). Therefore, guidance counseling is seen as an important enabler of educational and employment policies. The training of guidance counselors becomes high standards of professionalism and a central component of the public policy and planning process in education system.

Considering of values of GC are most important in elevation human standard of living in the society. It needs to identify requirements in complex situations, effort to solve complex tasks through the activation of specialist knowledge, skills, experiences, feelings, values, interests and motivations and to act independently and purposefully according to the analysis of the situation (National Guidance Forum, 2007; NICE, 2012; Bet, 2015; Institute of Guidance Counselors, 2015). Competence comprises the ability to self-critically reflect and assess one's activities regarding the situation and results, in order to learn from future challenges needs four components of GC (OECD 2004; NICE, 2012).

Service of GC composes of components such as basic services, responsive service, individual planning and support system. The purpose of basic service is helping counselee to: has awareness about self and environments, be able to develop skills to identify self-responsibility for self-adjustment, be able to solve the challenges that been faced, be able to self-develop in reaching the personal goals. To reach those purposes need to develop personal, social, learning and carrier aspects. It requires self-esteem, achievement motivation, skill of making decisions, skill of solving problems, skill of relationship and communication, awareness of cultural diversity, and responsibility (Laurie, 2000; Schrenko, 2002; Depdiknas, 2008).

The responsive service is guiding counselees to be able to solve their problem for reaching their goals. The problems that perhaps being faced by counselees are: anxiety, low profile, impulsive, school refusal, procrastination, anti-social attitudes, low achievement motivation, management stress and so on (Laurie, 2000; Schrenko, 2002; Depdiknas, 2008). Responsive counseling is an integrative process between a counselee, who is vulnerable and who needs assistance, and a counselor, who is trained and educated to give this assistance (Makinde, 1983). Counseling addresses and resolves problems help counselee in coping with crisis for decision making. It is concerned with helping individuals to work through feelings and inner conflicts so as to improve relationship with others (Tindi & Silsil, 2008). The goal of the interaction is to help the client learn to deal more effectively with him/herself and reality of his environment. Counseling denotes a relationship between counselor and counselee (Mutie & Ndambuki, 1999).

Individual planning services is guiding counselee: to understand self and environment, be able to set goals for self-such as personal, social, learning, and carrier aspects, and be able to act based on understanding, goals, and planning that been formulated. Therefore counselee is expected for: preparing self for further study, carrier and develops self-knowledge and social relationship, analyzing personal strength and weaknesses for reaching the goals, evaluating self-achievement, making decision and reflecting of self-planning. The focus of developing at this stage is academic, carrier, and social and personal relationship (Laurie, 2000; Schrenko, 2002; Depdiknas, 2008).

Support system services including developing networking, management, and research and developing aspects. Developing networking means counselors activities composing of: consulting with teachers, conducting a counseling program by collaborating parent and society, participating in school activities, cooperating with stakeholders in school to create conducive environment for counseling, doing researching relevant topics of guidance and counseling, collaborating with others experts. Management aspect means developing program, developing staffs, using effectively resources and developing stakeholders. Researching aspect means all activities that relates to the research for instance: planning, implementing and using the results for guidance and counseling, evaluating, developing and actively participating in professional program and activities of GC (Laurie, 2000; Schrenko, 2002; Depdiknas, 2008; Owino & Odera, 2014).

TEBE IN LURO COMMUNITY

The study about *tebe* will begin with an overview description of Luro, TL. Luro geographical society is one of the sub-districts that situated in the central part district Lautem. Western part Sub-district Luro is bordered with sub-districts Laga, the southern is bordered with sub-districts Baguia, Baucau districts. Meanwhile, northern and eastern are bordered with Moro and Lospalos sub-district and Southeast part is bordered by sub-districts Illiomar, Lautem district. Luro community consists of six villages (suco) (www.timor-leste.gov.tl, 2002).

In sociological Luro is agrarian society and farmers only a small group is scholars. In general, those scholars have a different social status in society. Impact of the education some of Luro people are spread throughout the territory of East Timor even spread to some part of this globe. They live and work as civil and military government agencies, and the private sector in East Timor and in Indonesia as well as most chose as workers in Australia, Korea, Portugal, the United Kingdom and Ireland (www.timor-leste.gov.tl, 2012).

Anthropologically Luro community has a culture that includes: the art of dance culture and beliefs, although in society life they use two different languages or two dialects such as Sa'aini and Makasae. Sa'aini language is a communication tool for people in three villages namely: Luro, Kotamutu and Barikafa, the language there are slightly similar with Makalero language in Illiomar sub-district. Makasae language is a communication tool for other third villages for instance Lakawa, Wairoke and Afabubu and a several families of Kotamutu village. Luro community has local wisdom that can unite them on a social life. (www.timor-leste.gov.tl, 2012).

Local wisdom includes beliefs and culture or philosophy of life of local society. Those wisdom into the nature of their togetherness as a people because of the wisdom that brought together, encouraging, supporting, organizing, educating and has values of sympathy and empathy in facing of all the challenges of life. One expression of local culture is the art such as traditionally dance. There are several traditional dances namely: *Tebe, Salala, Eleganaboi, Sigiri, Sorilele and Bereloi*.

The focus of this study is *tebe*. *Tebe* is a cultural art for people to express themselves in the recognition and the entire relationships with another such as private behavior. As behavior that take embodiment less stable and have a similarity in a group of people then formed a "way of life" together called 'culture'. According to the forms finer called 'art'. Culture include: way of eating, sleeping car, dancing, talking work, play, love, think, and so on (Bakker, 2000).

Ontologically *tebe* is a dance group that is essentially brought together, strengthen, support and comfort to all Luro community members, especially for those who attended and participated the dance. *Tebe* is a dance group that involves many people without limitation of age and level of education. Participants form a circle and dance moves from left to right while singing an expression of solidarity and education. In axiology *tebe* of Luro community is a heritage handed down from generation predecessor to the present generation and the generations to come. The *tebe* is one of the heritages as a means of unifying and education in society (Supriyanto, 2013). *Tebe* can be danced in public and also be done in the school setting, such as in event that was programed or a party at school *tebe* can be performed.

tebe is danced in a group with a circle formation. The movement of *tebe* starts from the left hand position moves to the right hand with right foot first, performance of circular moving accompanied by songs. The songs are sung by a singer (leader of the *Tebe*) and be answered by the group members or participants of the dance. The sentences of the song consists of several formulations namely: First, the formulation of words literally depicting reality and experience of life experienced by public together or experienced by singer or his family. This section generally expressed of past experience- such as suffering (torture and flogging), loss and death of immediate family members. Similarly, the discourse of teaching can be included in this section.

After having formed a circle leader of *tebe* excused himself to the community leaders or elderly of the community what present at the ceremony, that *tebe* will start soon. The permission be given by the leader of community after the circle formed by the tune of 2/4 or 4/4. Each participant in the group dance while following the rhythm of the song and pass footwork or the same steps, resulting in harmony in union in the dance, if one of the participants do not follow the rhythm of the song and leg movements, will damage the harmony and beauty of *tebe*.

Therefore, it takes discipline to maintain the cohesiveness or similarity in singing and moving. The couplets are sung go round as it is exposed in the following table:

Table.1 Phrases that describes challenging experiences (counseling)

No	makasae/local language	English/ literal translation	Meaning
1	Ele aiole, ele aoila, dolelo leukana olo rindo	We are here... we are here to tell our history	We are gathering to share our experiences
2	Lisensa ina-boba, ini Tebe ete.Tebe felun Tebe kote ini Tebe ete...	We ask you permission mothers and fathers. We are going to *tebe*. Good or falls *Tebe*. We are going to *Tebe*.	Asking permission from the community leaders and elderly people to *tebe*.
3	Ewali mau ete bada lane'ere... Aria lesamata nirata lolo...	Here me... all of you, the orphan and poor boy want to tell you my history	Inviting people to hear him
4	Nanadane sigiwari wua hai benu e... Lolubere lastiru tia meli-meli	Otherwise the village of Sigiwari has been crowded however the village members decrease because of pitching by eagle...	Supposed to members of the clan of Sigiwari had been increase but getting decreases because of war and dying...
5	Ia'a tala matebia woi tala bati kaka la'a fanu monu noko muni gali	The Matebia Mountain is a farewell place oldest brother died there and the youngest one is survive	Expression of post traumatic of losing family members
6	Aria mata do nau la'a suma la'a e... Ina ger anadi nau boba ger ana...	As orphan boy... i growing wild without mother love and mother kisses	Experiences as orphan he is growing wild... no one care him...
7	Watu woi desi-desi obu tia buna eee mau dane ia woi desi mii mau...	Each evening waiting for a uncle but he did never return till now	Wishing to meet his dead uncle.

Text analyses each point in table.

1. The expression of the purpose of the community gathering. The soloist or the person who leads the *tebe* or those who be appointed will announce to the community the aim of the gathering and the role that need to be obey by each participant. In regard of this study the purpose of the community gathering is to share and to get one's personal experiences to and with the community. Therefore each participant needs to take into the consideration the experiences that soloist want to share with the community.
2. The soloist asks permission to the community leader and elderly people who consider as father and mother of the community to start the *tebe*. After having permission from stakeholder in the community, simultaneously *tebe* is started.
3. An addressing to the entire participant. Soloist invites all participants to here and follows his sharing. He shares his personal experience as orphan. The experiences of as orphan are related to traumatic experiences of dying and losing of his parent or his beloved one.
4. The expressing of expectation wishes on what supposed to be happened, it did not happen. He supposes that his village/his clan member should be crowding and increase but the reality is the number of his clan is decreasing.
5. Sharing in regards to losing of his brothers or sisters (love one) who lose at war situation means never return until the moment of community gathering. This expressing indicated the reality of Timorese's family during war period. All Timorese people were faced and experienced the war situation since December 7th, 1975, when process of invasion

happened. During that period almost every single family has lose one of their family member (Thomas, 2005; Shah, 2009; Unicef, 2010). Those losing of family members because of war had effected almost every single Timorese people has post traumatic experience. Therefore, this phrase was expressing one of those losing and post traumatic experience. By telling and sharing it the soloist and all those how has same experience feel better, because of all the community members, at least those who are presence at the celebration moment shows their support, empathy and encourage to each other through *tebe*.

6. Sharing about an orphan's reality that there are no mother and no father means no permanent family home for him. As experiences shown that not every orphan are lucky to get good adopted family that support them to continue their daily life. Some of the orphan girls and boys live out their lives of sorrowful situation. They like a flower that growing wild, no mother's kisses and no father's hugs as other children has. He can be nomadic or streets boy. They like a flower growing wild with care and love from his parent. Therefore the only ways for them to express their sorrowful experience is through *tebe*.
7. Telling his hope of waiting. Every afternoon he waits is uncle or his family member by looking at the path ways that usually expected person takes to home. However his waiting is meaningless because the expected person to come home was passed away. The response of the community while they here the *Tebe* are really empathy to the soloist and to those who has same experiences. Some of them are crying because of formulation the word or phrase that used to express the reality. Sometime soloist is crying because he gets into his painful side of this experience.

Based on describing the seventh phrases can be formulated that expression of losing of the family member was really impacting on current life of the people. The life and future of those who lose the family are not certain; there are no care and love from the family. The orphan boy shares his experience to the community even though all the community knew the reality, however by sharing those painful experiences the boys feel his life is more bright or feel better after having telling and sharing his history. Community members recognize and encourage the orphans to improve the feeling of acceptance of the community and society. On the perspective can be discovered that there are values of the counseling at least sense of group counseling.

Table 2 Wisdom teaching of the elderly people to you one (guidance)

No	makasae/local language	English/literal translation	Meaning
1	Gau lolo mata gau nau gau lolo wali e.. tule wali mata do nau gau lolo tule	Children of educated people will easily follow the teachings	Kids consists of less difficult to follow the teaching
2	Funu mutu sala mutu muir ete rau e. Muir ete resin ete dugur eri nilu	In a war situation needed entertainment. So that just forgotten war news	In a war situation needed encourage each other
3	Ama ene liu fatu kulu gia wori e... Wori wagu wori ma netani wagu...	Garden stayed half swath under the breadfruit tree. To be divided for what	Role about do not polygamy
4	Mua hai usa watu hai rairia Lafu sifa girau gafu mau afa	Morning has broken, bringing new life	There are hope for the future
5	Fufu rau-rau iligata deit Naida dagarete fu tau dane	A flower is growing at protected place. How can someone pick it	It is difficult to get a good and well educated girl

6	Osolio leikira ia do woi Nai rene karak afa ia me mare	Ossolio Leikira is good path way on the hill, those who are willing please passing through	There are traditional role and law exist in Sigiwari's Clan needs to be lived out.
7	Boe saba iá gutu daru saba sege. Ai si soboleti boe saba teri	There are role and law that protects each one in the community, how it can be broke?	Each one of the community needs to follow traditional role and law

Text analyses each point in table.

1. The teaching or wisdom of the elderly people to the teenage or young adult. This phrase is telling that stage of the teenage and young adult is stage of "rebel or disobey" to the community relationship role. The teaching is addressing to youth about way of life. The youth needs to take into consideration the role and the law of the community in regards to the relationship and reality of the youth.
2. The expression of encouraging and comfort to those who are impacted of war that they need refreshing for consolation. It means they need to more often involve community gathering for leading them out from the current experience to be strong people. Involving in the community tebe counseling each other.
3. The expression the deepest consideration and reflected before make some important decision for the future. Ones need to realize his or her current reality and arrange or setting good goal for the best future by leading of the community leaders.
4. The expression of hope. This phase is telling to each of the community member specially the youth that new morning is coming. It brings a lot of hope, blessing and challenges however you are not alone; all the members of the community support you.
5. Telling that each family needs to implement the community role and law to educate and protect each member of their family. It means every single family need to educate their children accordance with all the values in the community such as moral, ethics and values of religion.
6. Telling people there are traditional or unwritten role on law that been setting up by the ancestors of Sigiwari Clan (one of the influencial Tribe in Luro) to organize all stage of the in the community. It needs to be respected by following all that lined in role by all the community member of Luro. The following the traditional role will create peace and harmony for each one in the community.
7. Telling that each family has their own role and style of education their children. Each family has its own method to protect their children especially their daughter, therefore each young boy or adult need to know the way to approach a gild. They need to follows the role that has existed in the community that role boys and girls relationship. The youth are taught to not broken the role of youth relationship in the community.

Based on the description seventh phrases is teaching or wisdom of elderly people or community leaders to educate and to guide all the members of the community, especially young people the way to live out their life. The youth needs to be well educated. They need helping of experienced person to accompany them in their planning or setting goal for the good future. Based on those seven phrases can be discovered that there are values of the guidance in *tebe*.

The soloist can be selected and trained spontaneously at the moment of *tebe* is ongoing. The appointment of new soloist can be done by the current soloist at the time of *tebe*. The appointment is done by indicating the name of the candidate soloist ("Jose (a fictitious name) *gana muni leu bada ere Woe asi masu koro en hai sisir ere* - I chose Jose to be new soloist because my throat was already ill), thereby Jose Solis and chanting couplets in accordance with his experience. If the soloist realized that *Tebe* long enough to do or dancer *tebe* was tired, he

can stop *tebe* by revelation switch on a theme or *tebe* another couplet solo: "*giselu muni tebe lanere, tebe isa'ku ere tebe isa dii"* (let's dance others *tebe* because this one has being bore).
Based on these studies can be summarized that *tebe* in society Luro is a mass dance involving many people regardless of educational background, socioeconomic status and age limits. Some values that can be drawn from *tebe* include:

1. The unity values means *tebe* is expressions of local wisdom that serves as a means of unifying, because it involves the whole society except infants and the elderly. Each dancer *tebe* united in and take responsibility for the sustainability *tebe*, because sense of belonging and become an integral part of *tebe*.
2. The teaching values mean this aspect described in the second table is advice and wisdom to every member of society to do and lived in community life. It means education, good health, high productivity, democratic, self-reliant, espousing the values of nationalism, nondiscrimination and equity within a global context. "(Nicolai, 2004; Shah, 2010) *tebe* used for practicing self-discipline in life together, because at dance execution time automatically every dancer must follow the movement and the same steps, when some dancers one step will ruin *tebe* formation. If the wrong formation dances in general, the movement will start from the beginning. Exploring the *tebe* containing education and an invitation to the entire community to reflect and personal experiences related to her and intersect with life together.
3. The learning values in personal and social relationship means each participant learn the way to hear what the topic is? Each participant can learn how to allow other person to join according to self-expectation. It means each one who want to join tebe, ones can ask permission to the exactly participant that has formed the circle before that he/she expects to hold their hands. Those two participant learning how to receive and include others. Even one can learn to harmonize one's steps to others and learning how to sing the repetition part of the song.
4. The respecting values means *tebe* as an expression of wisdom to listen to each other shortly because everyone attended the event along with good listening to the content and meaning of each verse that be sung by the soloist. Others replied by repeating chorus songs. It sign that they are following a solo chant. The togetherness and equality values means everyone be free to join the *tebe*. Everyone can join in, without differentiate between the community members. The soloist singer can be chosen from young boy and girl or adult people according to the experience and encouraging that each one has.
5. The openness and dynamics value means the soloist expressing the feeling and experiences that it has. The soloist was telling their history, sharing their sorrowful, sadness, joyous experience even wisdom teaching of the cultural philosophy and cultural values to all of the community members. The soloist singer indicates their openness, honesty and dynamics of the community members.
6. The supportive, sympathetic and empathetic, and courage values means when the soloist sings the verses that are exposed in table 1 that those people who attend *tebe* get into the cores of the meaning. It brings them more emotional even crying. Participants of *tebe* can be crying because of a string of words in the *tebe* equal to their own personal experience. Personal experience of suffering and lost, sometimes participants joined crying because empathize or sympathize to the soloist.
7. The discipline and harmony values means those who are involve in *tebe* must be follow the combination of rhythm and steps. Every participant of *tebe* must steps their legs at some moment according to music. Even though just one of the participants breaks it, the harmony of *tebe* will be disturbed. The movement of circle will be disharmony. It means everyone needs to be discipline to create a harmony movement in *tebe*.

8. The entertaining values mean everyone who attended the event seemed amused by the rhythm of the song and a string of words in the temple of the *tebe*. Entertained feelings were revealed in the fun and laughs along with a soloist. At the time soloist sang the verses that describe the world situation of young people who are praised their idol figures.
9. The GC values means that implementation of *tebe* are containing some elements guidance because of four principle component of guidance and counseling. It means the group counseling aspects are existed in *tebe*, even though it needs more effort of exploring those values. Also the values of counseling is existed in *tebe* because of the facial expressions of each dancer and soloist more relax, quiet, peace and happy after having *tebe*. Seem happier because at the time *tebe* soloist disclosed and shared the post traumatic experiences (of grief, sorrowful, painful, and traumatic experiences, etc.).

Philosophy of Science

Philosophy is way of life of individual or groups of human being which is a basic concept about life and future (Latif, 2014). The philosophy of science is the branch of philosophy that critically examines the foundations, methods, products, and implications of the activity called science (Moore J. 2010). Representative topics in the philosophy of science include (a) the origin and nature of scientific language (e.g., terms, concepts, statements, laws, theories, explanations, predictions, and arts), (b) the validity of scientific language (e.g., definitions, meanings, and applications), (c) the nature of the scientific method, (d) the nature of scientific reasoning, and (e) models of scientific activity. This sketch reviews the historical development of the philosophy of science, representative individuals in the field, and topics of long-standing interest. The aim is to prepare readers for subsequent discussions of behaviorism, cognitive psychology, and the meaning of mental terms. The famous physicists Albert Einstein considered philosophy of Science as a way to liberate the scientist's imagination (Lewens, 2015). The even more famous Stephen Hawking state that philosophy is dead and that it has not kept up with modern developments in science, particularly physics (Hawking & Mlodinow, 2010) those statements are addressing to express that phisolophy of science is the difficult part of philosophy means no everyone fully understand the way of thinking dan way of doing of the philosophers. One difficult part of the philosophy is the philosophy of science; the only people, as far as I can tell, that read work by philosophers of science are other philosophers of science. It has no impact on physics what so ever and I doubt that other philosophers read it because it's fairly technical (Stewart, 2009).

Philosphy of science is a discipline in relating to the subject of wisdom. Wisdom is an ideal form of human life, because it will make people to be based on humanitarian considerations were high (actus humanus). Wisdom is achieved with critical thinking, analytic, synthetic, skeptics and explores wisdom grains of religion as the moral thinking that generates new knowledge (Kebung, 2011; Supriyanto, 2013). The knowledge was derived from science and be able to answer the problems of daily life that faced by humans and used it to offer greater convenience to the people, been stated that science is an instrument for people to solve the various problems that faces. Science can be used to explain and predict natural phenomena control. Therefore, PS is bodies of knowledge that constructed consistently and truth have been tested empirically. Be aware that discovering science is not absolute. Science is about all the knowledge gathered through scientific methods, through the results of a series of life-cycle including deduction, induction and continuous verification (Supriyanto, 2013).

PS is studying about assumptions, fundamentally thinking and implementation of science. Ackerman (1999; Kebung, 2011) defines the PS is a critical review of the scientific opinion today by the ratio of the opinion that the past has been proved. It is clear that the PS to question

and assess methods of scientific thinking and try to set the value and importance of scientific endeavor as a whole (Beck, 1997; Kebung, 2011).

Therefore, based on those two opinions should be summarized that PS is to question and critically analyze the methods of scientific thinking and comparing today with the opinion of the past to set the value of the overall effort including reviewing cultural values. The cultural values which are trying to discover are guidance and counseling's values in *tebe* of Luro community.

Exploring the Values of GC in *Tebe* Based on PS.

The values of GC been assessed in *tebe* of Luro community of TL based on the PS. The values GC as they appeared in nature of fourth service components are: basic services, responsive service, individual planning and support system. Those fourth values were indicated in various forms in the implementation of *tebe* in Luro community of TL. GC is seeking to facilitate the counselee to be able to develop their potency to achieve developmental tasks (involving the physical, emotional, intellectual, social, moral and spiritual). Counseling consists of whatever a counselor undertaken the ethical activities in an effort to help the counselee to engage the reviews of those types of behavior that will lead to a resolution of the counselee's problems "(Krumboltz, 1965, Flanagan & Flanagan, 2004).

The Values of *tebe* is essentially discovered to facilitate each member of the community can also every student to express their experiences. Life experiences are fun, encouraging, joyous, grief, sorrows, depressing (post traumatic experience). Each member of the community including student participate in creating and developing the values of unity, togetherness, openness, discipline, harmonious, education, solidarity, empathy, sympathy and respect, discipline, responsibility, guidance and counseling. Those values are handed over from generation to next of Luro community through *Tebe* and another cultural expression. Thus every generation of Luro can achieve personal development tasks in a sense and a certain level, as underlined by the nature of GC has been mention above, even it be re-mentioned at the followings point.

Basic service components of GC is emphasizing the process of assistance to the counselee through joint activities or groups that presented systematically in the context of long-term behavior in accordance with the stages and developmental tasks (Laurie, 2000; Schrenko, 2002; Depdiknas, 2008). *Tebe* displayed in the group and each member of the group listening to chant of soloist dancer that telling, sharing and describing the history of his /her life. The history's was formulated in the form of *tebe* soloist. There are processes of group counseling as asserted that something that each one involved in that: talk, excrete, said, and shared his misery and so on to recover at the moment (Flanagan & Flanagan (2004). *Tebe* is brought out in group through joint activities with the simple structure to develop behavior long term in accordance with the duties of individual development, because this dance has been handed from generation to generation.

Responsive service components of GC are to provide assistance to counselee, whom faced the problems and require urgent assistance through individual counseling, crisis consultation with parents and teachers or hand over counseling Laurie, 2000; Schrenko, 2002; Depdiknas, 2008 has been mention above. The goal of component is to help the counselee to solve their problems. In *Tebe* individuals who are having problems helped by refer to (tables 1) counselee direct or indirectly feels the support, empathy and encouraging from others in order to continue the process of personal development. In *tebe* community elders and soloist acted as counselor and in particular the dancer soloist by him/herself or on behalf of the community acted as the counselee. *Tebe* creates a situation in the which, two or more people interact and

try to come to an understanding of one another, with the specific goal of accomplishing something beneficial for the counselee (Bruch, 1981 in, Flanaga & Flanagan, 2004).

Tebe facilitates each community member to be more aware in association with others. The association is displayed in the relationship of each members of community especially youth people. They are guided by norms of society and religious in the community. Individual planning is a helping to the counselee and performs activities related to planning the future based on an understanding of the advantages and disadvantages aspect, understanding the opportunities that be available in their environment. The goal of this service is to help the counselee formulating objectives and plans for development of the self. Counselee can conduct based on understanding of the goals and plans that have been formulated (Laurie, 2000; Schrenko, 2002; Permendiknas, 2008).

Community and groups support in *tebe* is felt by every individual whom present at the moment. Each participant of *tebe* can learn individual and social skills. Being supported so they are more motivated and encouraged to continue their lives, including in facing and overcome the challenges, planning for the future and decision making. Those values of *tebe* are more groups GC then individual one. Obviously that means the effect of group GC is more efficient than individual one because counseling groups serve more people at the same time; it also offers many benefits (Sharf, 2012). Essensi of *tebe* is also enabling each one to more effective in learning of social skills and tries out new relationships with others (Corey, 2009). The success of social interaction often ask person to understand that other people may not correctly interpret and certainly as ones did (Pronin et.al. 2002; Kertamuda, 2013).

Components of support systems are implementing the three previous services by providing tools and support by counselors. The nature of those GC components are implemented in a circumstance of PS. Philosophy is the beginning of the discipline that is strongly associated with wisdom drawn in human life in order to act in accordance with the norms of society and religion to achieve the goals. It means in the process of solving the problem and seeking to find the truth principles and the causes of the existing reality.

Values GC have been tested by synthesis of a variety of hypotheses and antithesis earlier. It means that GC has founded in PS. However, the value of GC in *tebe* is still need to be explored and discovered in further study by different perspective of science. Deeper assessment is needed because *tebe* as local wisdom that has not touch, review and analysis guided by methodologies and scientific empirical. Better empirical research based on scientific methodology and criteria are still needed to dig deeper and more exploring the values of GC in *tebe*. Study that has been done in this article is still an initial exploring the values of GC in *tebe*.

The initial exploring starts from a phenomenon that Luro society was rarely even not yet get opportunity for counseling with a professional counselor in the real sense. Each members of Luro community are generally expressing their grief, anguish, painful, sorrowful, and traumatic experience through various ways such as *tebe* and another traditional dance. *tebe* is an instrument and opportunity to share their history of painful and sorrowful experiences, after have *tebe* indicates that almost everyone who presences indicate that they are more calm and cheerful than before. *tebe* is performed in a group means a process of personal interaction, but not exactly same to the GC in the counseling process to express their feelings and behavior (Corey & Corey, 2010). The values of GC in *tebe* is not exactly same the values of GC which has been formal used according to education curriculum. Therefore need further study to explore and to discover such values as self-awareness, self-identity, cultural perspectives, powers and privileges, goals, motivation, limitations, strengths, values, feelings and problems (Corey & Corey, 2010).

CONCLUSION AND SUGGESTION

Conclusions

Based on exploring to discover values of GC in *Tebe* in perspective PS can be summarized:

1) Exploring was discovering the values of GC which are contained in the *tebe* of Luro community are still an effort and an early breakthrough approach that based on the PS. This early exploring need to be followed up in further study by various scientific perspectives regarding to *tebe*.
2) The values of GC which is assumed that *tebe* naturally contain the four components of GC services, even though is associated with confidentiality criteria is needed further study.
3) *Tebe* is a local wisdom of Luro community of East Timor that contains some values of guidance and counseling. *Tebe* is used to be a means for unite, education, discipline, support, sharing, sympathy and empathy, openness, learning, harmony and self-reflection because of *tebe* post traumatic, joyous experience, teaching and learning can be shared with others through the phrases of soloist singer of *tebe*.
4) The values of GC are based on the PS. Once the value is revealed, it is assumed that *tebe* should be generally accepted in the schema of GC as one of the local wisdom that has values of guidance and counseling. Therefore *tebe* be suggested to use as an instrument in the implementation of the guidance and counseling, especially in group GC at school settings particularly in Luro community and East Timor in general.

Suggestions

Based on the exploring the value of GC in *Tebe* of Luro community in perspective of the PS, there are some suggestions that addressed to the several institutions:

1) The government of East Timor should be given adequate time and space for GC program. It means government should give positive response and providing environment of education and culture support for every effort to research for developing and preserving the national culture which is contained in the local arts.
2) The academicians (universities, stakeholders of education) in TL should do more research regarding to the local wisdom of Timorese people for the conservation and developing the culture.
3) The young Timorese especially the people of Luro needs to conserve and elevate the richness of the local cultural. It needs to be explored scientifically such as PS and other perspective of research.
4) The reader should consider this article as the actual and factual information in the running multicultural counseling.

REFERENCES

Bakker, A. 2000. *Antropologi Metafisika*, Pustaka Filsafat, Jogjakarta: Penerbit Kanisius.

Beck, J.G., Shipherd, J.C., & Zebb, B.J. 1997. *How does Interceptive Exposure for Panic Disorder Work?* An Uncontrolled Case Study. Journal of Anxiety Disorders, (11):541–556.

Bett, J.C. 2013. The Importance of Promoting the Value and the Role of Peer Counseling among Students in Secondary Schools. *International Journal of Economy, Management and Social Sciences*, 2 (6), 477-484, June 2013. ISSN: 2306-7276.

Bruch, H. 1981. *Teaching and Learning of Psychotherapy*. Canadian Journal of Psychiatry, (26): 86–92.

Corey, G. 2009. *Theory and Practice of Counseling and Psychotherapy*, (Ed. 8). USA: Thompson Brooks/Cole.

Corey, M.S. & Corey, G. 2000. *Group Process and Practice*. USA: Brook/Cole.

DEPDIKNAS. 2008. *Penataan Pendidikan Profesional Konselor dan Layanan BK dalam jalur pendidikan Formal*. Jakarta: Direktorat Jenderal Pendidikan Tinggi Departemen Pendidikan Nasional.

Flanagan, J.S & Flanagan, M.S. 2014. *Counseling and Psychotherapy Theories in Context and Practice, Skills, Strategies and Technigues*. New Jersey: John Wiley & Sons, Inc., Hoboken.

Hawking, S & Mlodinow, L. 2010. *The Grand Design*. London: Bantam Books
(Online) https://www.theguardian.com/books/2015/aug/27/the-meaning-of-science-tim-lewens-review-philosophy.

Institute of Guidance Counselors. 2015. *Response to the Proposed Criteria and Guidelines for Programs Providers of Initial Education Programs in Guidance Counseling*. IGC Response April 2015

Kebung, K. 2011. *Filsafat Ilmu Pengetahuan*. Jakarta: Prestasi Pustaka Publisher.

Kertamuda, F. 2013. *Konselor dan Kesadaran Budaya Cultural Awareness*. Jakarta: Universitas Paramadina.

Krumboltz, J.D. 1965. *Behavioral Counseling: Rationale and Research*. Personnel and Guidance Journal. (44): 383–387.

Latif, M. 2014. *Orientasi Kearah Pemahaman Filsafat Ilmu*. Jakarta: Prenadamedia Group.

Laurie, S.J. 2000. *Promoting Professional Identity in an Era of Educational Reform.* American School Counselor Association.

Makinde, O. 1983. *Fundamentals of Guidance and Counseling*. London: MacMillan.

Moore, J. 2010. Philosophy of Science, With Special Consideration Given To Behaviorism as The Philosophy of The Science of Behavior. *The Psychological Record,* (60), 137–136

Mutie, E.K., & Ndambuki, P. 1999. *GC for Schools and Colleges*. Nairobi: Oxford University Press.

National Guidance Forum. 2007. *Guidance for Life: An Integrated Framework for Lifelong Guidance in Ireland.* Dublin.

NICE. 2012. *Handbook for the Academic Training of Career GC Professionals.* Heidelberg University: Germany.

Nicolai, S. 2004. *Learning independence: Education in emergency and transition in Timor-Leste* since 1999. Paris: UNESCO.

OECD. 2002. *Why Carrier Information, GC Matter for Public Policy*, A Working Paper OECD: Paris, 2002.

OECD. 2004. OECD *Review of Carrier Guidance Policies.*

OECD. 2014. *Review of national policies for carrier information, GC services in 14 Countries*: A Working Paper OECD: Ireland. 2014.

Owino, J., Odera, F.Y. 2014. GC Practices by Teachers in Primary Schools in Kisumu West Sub County, Kenya. *International Journal of Academic Research and Reflection*, 2 (4), 2014 ISSN 2309-0405.

(Online) www.timor-leste.gov.tl. 2002.

(Online) www.timor-leste.gov.tl. 2012.

Parlamento Nasional da Republica Democratic Timor Lesta, 2002. *Constitution of Democratic Republic of TL*, Art. 59. TL: Dili Casa Do Parlamento Nasional

Schrenko, L.C. 2002.*A Framework for Asset Building Standard in GC Curriculum.* Georgia Department of Education.

Shah. R. 2009. *Timor-Leste ten years on: Reconstructing curriculum for the future. New Zealand:* A paper presented at the 10th UKFIET Conference on Education and Development, Oxford, 15-17 September 2009.

Sharf, R.S. 2012. *Theory of Psychotherapy and Counseling, Concept and Cases*. USAL Brooks/Cole, Cangage Learning.

Supriyanto, S. 2013. *Filsafat Ilmu*. Jakarta: Prestasi Pustaka.

Stewart, A.W. 2009, A Debate about Anderson's Logic, *History and Philosophy of Logic*, 30(2), 157–69.

Tindi, O. & Silsil, P. 2008. Guidance and Counseling: Topics and Programs for Schools. Nairobi: Shrend Publishers Ltd.

Ethnobotany Knowledge on Medicinal Plants of Rejang Descendant Students in Bengkulu

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Abstract: Traditional knowledge of medicinal plants and their use in the present is not only useful for the conservation of cultural traditions and biodiversity only, but also for public health care in the local community. The utilization of medicinal plants in the community continues to grow and passed on to the next generation. In order to obtain data and information on the use of plants by traditional tribal society, the study of ethno botany was conducted. This descriptive study aims to determine Rejang descendant students' knowledge of medicinal plants ethno botany. Data was taken from students of Rejang descendants at one high school in Bengkulu with the total of 29 students. The instruments used were interviews, tests and questionnaires. The results showed that the average score of Rejang descendant students' knowledge in ethno botany categorized as quite well. Based on the cognitive level C1 (remember), C2 (see/understand), and C3 (apply) , the scores result on the cognitive level C1 (remember) is the highest when it is compared to cognitive level C2 (see / understand), and C3 (apply).

Keywords: Knowledge ethno botany, medicinal plants, parts rejang.

Indonesia is a country that has a wealth of biodiversity Whitten (in Utami, 2010) reported that the island of Sumatra has more than 10,000 species of higher plants that generally live in lowland forests. Bengkulu Province, which is located in the southern part of Sumatra, also has a wealth of flora that are very abundant. The existence of these plants can be used to meet the interests of life, such as pharmaceuticals, cosmetics, pesticide, fungicide ingredient (Darma *in Utami et al,* 2010). Cultural knowledge possessed by every human being with each other to rely on the knowledge possessed by citizens or supporters. In connection with that, we recognize the existence of civilized society is still very simple and vice versa. Traditional knowledge of medicinal plants and their use in the present is not only useful for the conservation of cultural traditions and biodiversity but also for public health care and drug development in local communities. Traditional knowledge about medicinal plants began to appear when people learn how to use traditional knowledge on medicinal plants (Mesfin, 2013).

Indonesia has about 400 tribes with each ethnic and cultural sub-etnis civilization and knowledge passed down from one generation to the next, including the traditional medicine. Traditional medicine is a part of a nation's culture and have been used by the Indonesian society since centuries ago, started by the development of traditional medicine of traditional herbs in the society, which later developed into a herb that is believed to have certain properties to the human body. The utilization of medicinal plants in the community continues to grow and passed on to the next generation (Wasito, 2011). As stated by Pure (2010), there are now also many herbs that are difficult to find because of a lack of interest in the community in order to cultivate it. General knowledge of traditional medicine is only controlled by the elderly. Today's younger generations are less motivated to gain knowledge from the elderly, and are slowly becoming obsolete. Therefore, In order to obtain data and information on the use of plants by traditional tribal society, the study of ethno botany was conducted.

Bengkulu Province has nine sub ethnic namely, Mukomuko, Pekal, Rejang, Lembak Pasmah, Malay Bengkulu, Serawai, Kaur, and Enggano. Rejang tribe is the oldest and largest ethnic group. According to a research conducted by Yunika (2014), Rejang still uses herbs as medicine in curing some diseases. However, the health facilities have started to adequate and society in general are already using modern medicine concoction plant to cure various diseases. Hence, the types and ways of using plants as medicine by Rejang tribal communities need to be revealed back. Therefore, this study also aimed to know the Rejang descendant students' knowledge on several types of plants used as medicine. In addition, the learning system in school is also studied. It needs to be analyzed because education has an important role in delivering the information and clarifying the various knowledges. If the knowledge is useful then it should continue to be preserved.

METHOD

This research was conducted in August 2016 at a senior high school in Central Bengkulu. Sampling was done through purposive sampling of students. Purposive sampling is used when the sample members were chosen specifically by objective research. The instruments used were a test and questionnaire. A knowledge test in the form of a number of multiple choice questions with five possible answers, the matter was made based on the inventory of plants used as medicine by Rejang communities. Inventory of plants is done through direct interview to the key figures. The questionnaire is used to to dig up some additional information related to the student's knowledge of the use of medicinal plants.

RESEARCH RESULT

Based on interviews with key figures are 39 species of plants used as medicine that has been identified. Some people still use these plants as a first treatment before being taken to a doctor or clinic. Some plants have a dual function, which is the same in its processing plants as medicines that can be used to treat more than one kind of different diseases. In addition, there are also differences in the processing of any type of disease. Data findings of ethno botany knowledge test from the students of Rejang descendant's shows the mean score with an average value of 60.17.

Table 2.1 Summary of the average score calculation of students' knowledge

result	Students (N- 29)	Category
Average	60.17	Pretty good
The maximum value	80	
The minimum value	40	

The score of students' knowledge at level of cognitive C1 (remember)is 74.38. At the cognitive level C2 (understand), the students acquire the average score which is 61.30, and on the cognitive level C3 (apply), the students obtain 32.76 for the mean score.

Table 2.2 means score of each cognition level

No.	cognitive Study	The score every aspect	Category
1	C1 (considering)	74.38	Pretty good

2	C2 (understand)	61.30	Pretty good
3	C3 (applying)	32.76	Not good

The results of students' responses about sources of information about the use of plants as medicines derived from several sources. Results of student feedback regarding resources students can be seen in Figure 2.1.

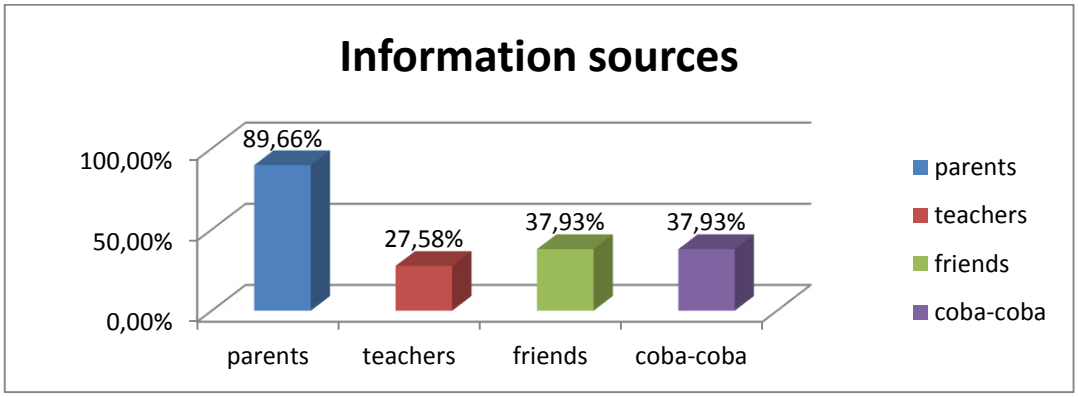

Figure 2.1 Sources of information about the student's knowledge of plants as drug utilization

Knowledge is something that is known to be associated with the learning process. Knowledge is the result of the idea, and this occurred after people perform sensing on a specific object. Sensing occurs through human senses, the senses of sight, hearing, smell, taste, and touch. A large part of human knowledge is obtained through the eyes and ears (Notoatmodjo, 2003). Students receive knowledge about the use of plants as medicine through their senses. Based on student responses were almost half (50%) gain knowledge about the use of plants as medicine to see their parents dispensing medicine.

The results of student responses about some ways students in seeking out knowledge about the use of plants can be seen in Figure 2.2 below

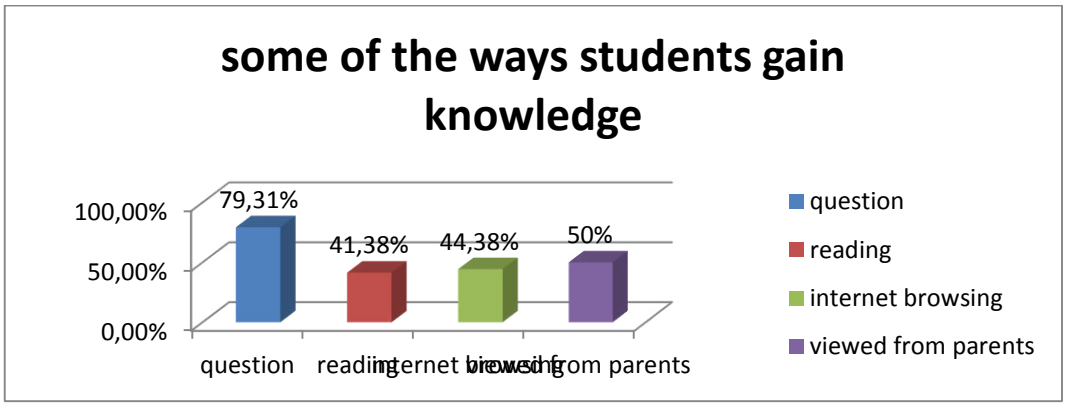

Figure 2.2 some of the ways the students to gain knowledge about the use of plants

Most of the knowledge is acquired from other people. Others inform us, either directly or through the media. In the family, we are gaining knowledge from parents, from infancy to adulthood. Similarly, knowledge about tumbahan use as a medicine, in the descendants of the students obtained rejang of people around him, especially from their parents. Nearly 89.66%

they get from their parents, from teachers 27.58%, 37.93% from friends and try. According Notoatmodjo (2003), there are several factors that affect a person's knowledge one of them through the mass media. Currently the Internet became the most desirable resources. Approximately 44.83% student response received information through browsing on the internet and via read 41.38%.

Results of student feedback on student interest ethno botany plants can be seen in Table 2.3 below

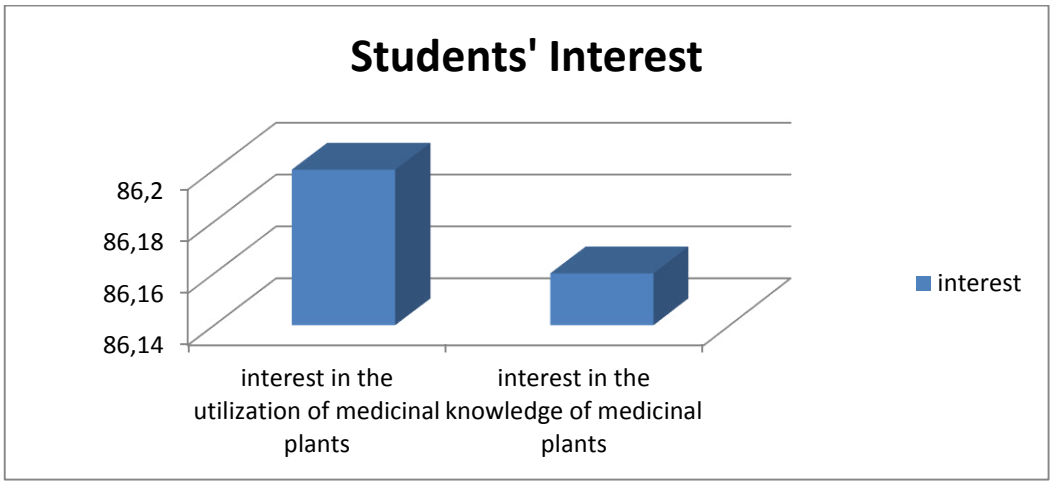

Figure 2.3 student interest ethno botany plant

DISCUSSION

Based on the survey results revealed the cognitive sciences C1 which requires students to know the name of medicinal plants and herbs used body parts (roots, stems, leaves, flowers, or fruit). The plants obtained from an inventory of medicinal plants used by tribal rejang. Based on the results of the study mean score of students' knowledge of cognitive level C1 (remember) obtained a mean value of the descendants of the students rejang 74.38. It shows the ability of the student to know the name of medicinal plants and a part of a plant that is used is quite good. Some studies including research conducted by Pure et al (2012) that the people of the tribe studied had a high level of knowledge on traditional medicine. Zuhud and Yuniarsih in Attamimi (1997) stated that the knowledge and experience of the community regarding the utilization of medicinal plant diversity invaluable for research development activities further.

In the cognitive sciences C2 that requires students to know the benefits of many plants. Based on the results of the study mean score of knowledge of students about the benefits of some of the plants are still quite good. Based on the above results, the student's knowledge about the benefits of the tribe Rejang each plant is higher than with current knowledge about plants and how to cultivate. This is not in line with the research Pure (2012) in Serawai that knowledge of plant species tend to be higher compare with knowledge about the benefits and how to process them. This may be because the student's tribe Rejang better understands the benefits of some drugs based on personal experience. Based on interviews with some students, when they get sick their parents make a concoction of herbs as first aid when ill. If viewed from the aspect of interest, student's rejang have an interest rate that is high enough to use plants as medicine.

In the cognitive sciences C3 questions that were raised about the students' knowledge in processing plants as medicine. Lack of descendants of the students' knowledge about how to

cultivate plants rejang be a medicinal herb decline indicates a lack of knowledge to youth in tribal rejang. It is a portrait that the descendants of the Rejang themselves want to learn about the use of plants as medicine but there are some obstacles in the decline of the old information. Some of the obstacles are indicated to be a slow process because of the pattern of transfer of knowledge transfer in the community. Parents tend to make a potion when there are family members who are sick. The lack of a special time to teach children about the use of plants as medicine. Besides the absence of specific records held parents to bequeath to their descendants. Decrease knowledge usually only been talked alone. The result of interviewing with people who were experted in the treatment of Rejang tribe known that not all of their children would acquire such knowledge. The traditional healers tend to teach specifically to children who have a willingness to learn about how to cure patients with herbs. Additionally seen where the child is also considered the most patient and persevering when invited to cure patients. According to an interview patience must-have for a sick patient does not know the time like day, morning, afternoon and midnight. It needs patience so that when called upon citizens to treat the sick they still serve in any condition.

Based on interviews with several teachers, the classroom teacher teaching biology class does not teach specifically regarding the use of plants as medicine. The material of the plants that have been originated only plants that are known or found nearby. Most of the material from the textbook that were developed by adjusting to the school's neighborhood. For example, how to maintain the preservation of the environment and any conservation efforts we can do. Besides other constraints to teach the use of plants as medicine is contained in every tribe among the languages where there is a difference in the names of plants in each area. Sometimes the students know the name of the region but did not know its Indonesian name. Students not speak the name of the plants, although they know the benefits of these plants. It is also an obstacle in preserving the use of plants in the tribe rejang.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on research that has been done, it can be concluded that there are 39 species of plants used by Rejang society. Nearly 89.66% of the information is acquired from their parents. In general, the average score of students' knowledge stands in the category quite well. For the mean score at C1 level are (recall) and C2 (understand), the category is quite well, and at the cognitive level C3 (applying) the entry is in unfavorable category. In this study, there are several obstacles in preserving knowledge about the use of plants as medicine among which the pattern of decline in knowledge, language differences and lack of learning about the use of medicinal plants in the school.

Suggestion

The first step that should be made in exploiting the potential of ethno botany and conservation of medicinal plants is to save the documented information on how to use the plants based on knowledge derived from local knowledge. In maintaining and preserving their own culture, the process of transferring the knowledge is acquired the best through education. The purpose of education is to preserve and increase work culture itself, with education, we can transfer the culture itself captivate the generations that furthermore, addition of public knowledge about the use of plants as medicine will be better in the future.

REFERENCES

Mesfin, K., Tekle, G., dan Tesfay, T. 2013. Ethno Botanical Study Of Traditional Medicinal Plants Used By Indigenous People Of Gemad District, Northern Ethiopia. *Journal of Medicinal Plants Studies*. (1): 32-37

Mungmachon, M. 2012. Knowledge and Local Wisdom: Community Treasure. *International Journal of Humanities and Social Science.* (2): 174-181

Murni, S.A., Prawito, P, dan Widiono, S. 2012. Eksistensi pemanfaatan tanaman obat tradisional (TOT) suku serawai diera medikalisasi kehidupan. . *Journal Naturalis- Penelitian pengelolaan sumberdaya alam dan lingkungan*. (1): 225-233

Notoatmodjo. 2003. Pendidikan dan Perilaku Kesehatan. Jakarta : Rineka Cipta.

Nugraha,Y. 2008.*Mengenal Apotek Hidup*. Jakarta:Karya Mandiri Pratama

Putra, A.P., Wiryono, A.E. 2012. Studi Etnobotani suku Serawai di Kelurahan Sukarami Kecamatan Selebar Kota Bengkulu. *Journal Naturalis- Penelitian pengelolaan sumberdaya alam dan lingkungan*. (1): 217-224

Tama, Y. 2014. Keanekaragaman jenis tumbuhan pekarangan yang dimanfaatkan sebagai obat oleh suku rejang di desa Taba Tengah Kecamatan Bang haji Kabupaten Bengkulu Tengah sebagai bahan ajar biologi SMA. Skripsi. UNIB Bengkulu: di terbitkan.

Takandjandji, M. dan S.E. Sumanto. 2010. Keanekaragaman jenis tumbuhan obat di kawasan Hutan Lindung Luku Melolo, Sumba Timur. Info Hutan, Vol VII (3): 229-258. Pusat Penelitian dan Pengembangan Hutan dan Konservasi Alam. Bogor.

Utami, S. dan Noor F.H. 2010. Pemanfaatan Etnobotani dari Hutan Tropis Bengkulu sebagai Pestisida Nabati. *Journal JMHT*. (3): 143-147

Wasito, H. 2011. Obat Tradisional Kekayaan Indonesia. Yogyakarta: Graha Ilmu

Implementation of QMS ISO 9001: 2008 in Learning Process of Learning Results Subject Assembling Computer Skills Package TKJ Vocational High School in Malang

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Abstract: In order to improve the quality of management or the quality of their learning needs so that learning goes well that will improve the quality of education. quality improvement can be done with good management that focuses on improving the quality and international standards such as ISO 9001: 2008 applies Really Quality Control is expected to achieve effectiveness and efficiency of educational institutions. this study was to determine the extent of compliance with the study process subjects particularly productive subjects Assembling Computer Supported QMS ISO 9001: 2008, so as to optimize the quality of secondary vocational schools. This study uses quantitative methods to measure the effectiveness of the learning process of Computer Assembling lessons with student learning outcomes in program expertise Computer Engineering and Networks Middle School SMK in Malang data is derived from a population of students of class X TKJ SMK Malang with a collection of 243 samples. Data for this study using a questionnaire variables X and Y is the documentation for the variable value. interview include teachers and heads of programming skills. Analysis of the data used is the linear regression. The results of the study as well as the importance of the value of 0:00 t obtained from more than 13.613 t table shows H0 rejected and Ha is accepted that there is a positive influence between the quality management system ISO 9001: 2008 with Assembly Computer studying at SMK in Malang and obtained R square of 0.438 which means QMS ISO 9001: 2008 effect of 43% for the learning process. From interviews with teachers indicated that the school has implemented QMS ISO 9001: 2008 can be seen from the performance indicators as well as subject teachers productive has implemented QMS ISO 9001: 2008 in the learning process, this can be seen in terms of the administration of structured learning and organitation, delivery and management in accordance with the quality guidelines.

Keywords: QMS ISO 9001 2008, learning, computer assembly.

Vocational education is secondary education that prepares students to work in a particular field. Various attempts have been made to improve the quality of vocational education, including through training and improving the quality of school management. The level of quality of education is always evolving in accordance with the development of society is determined by the demands of the development of technology and science. Therefore, quality improvement must be done continuously in an effort to ensure quality education. The quality of education is closely related to the quality of the learning process and it is influenced by several factors, among others: teachers, learners, methods, facilities and curriculum and administration. The learning process is a process of interaction between teachers and students with a learning environment that is managed through planning, implementation, and evaluation.

Planning is often also referred to as a bridge that connects the gap, or the gap between the present situation and the situation is expected to occur in the future. Planning precede implementation of an activity, considering the planning is the process to determine where to go

and identify the necessary requirements in a way that is most effective and efficient. Ibrahim (1993) says that the plan outline lesson includes activities to determine what purpose will be achieved by learning, what means are used to assess the achievement of these objectives, content and materials to be delivered, how to deliver, as well as tools or media as needed. With lesson plans, teachers can predict, prepare for, and determine what action will be taken on the learning process. At this stage, teachers prepare everything so that the learning process can run effectively in accordance with the standards in the curriculum.

Learning productive in vocational high schools when done well and effectively with the support of human resources, financial resources and infrastructure to make the learners experience the learning process meaningful *(meaningful learning)* and also gain useful knowledge *(functional knowledge)* that can be the basis of competence in the world of work. According Murniati and Usman Nasir (2009: 2) vocational education has a direct influence on the process of industrialization, especially when associated with function satisfy the needs of a skilled workforce and reliable and has the vision and serious attention to the development of technology. Providing education and teaching in vocational basically an attempt to equip learners with the ability to match the criteria expected by the industry and the business world, to be able to succeed in the world of work should be supported with academic success in school.

Academic success is often referred to as a learning outcome that would encourage certain behavior for students, where evaluation and evaluation required. Anas (1996: 26) states that the purpose of the evaluation can be grouped into two categories, namely: (1) to obtain data to support the achievement level of competence and (2) to assess the effectiveness of teaching methods that have been used by teachers. From this it can be understood that the evaluation was to evaluate the results of the study whose main purpose is to determine the extent to which the student controls the competencies that must be mastered. It can be concluded that the learning process will produce quality graduates output quality. To get a good quality assurance needs to be prepared as well as the monitoring and improvement of the learning process systematically.

If seen the quality of education in Indonesia is still lagging behind when compared with neighboring countries. The survey results European Institute for Corporate Development (OECD) conducted in 2015 ranked Indonesia ranked 69th out of 76 countries, it is in contrast with Singapore ranking first, according to the OECD report that the standard of education is a predictor for long-term prosperity of a country, The quality of education in Indonesia is affected by the national education system and human resources (HR). The survey results Human Development Index (HDI) by the National Unit Development Program (UNDP) Indonesia was ranked 110 while Malaysia and Singapore was ranked 62 and 11. He then explained that Mukhadis (2003: 1) that the level of achievement of learning objectives in vocational allegedly still relatively low, According Sugiyono (Riban, 2011: 1), the failure of education to develop human resources in Indonesia caused by the management of education in Indonesia has not been done professionally. It is supported in law no.14 of 2005 on teachers and lecturers Chapter II, Article 4 reads: "The position of professional teachers is as professional staff in elementary education, secondary education and early childhood education in the officer appointed in accordance with the law serves to enhance the dignity and role of the teacher as a learning agent serves to improve the quality of national education"

Based on the above statement the professional teachers teaching agency that works to improve the quality or the quality of education. Quality is not only meet the national standard, but also must meet international standards (Matri, 2008: 9). To get a quality management or improve the quality of their learning needs so that learning goes well that will improve the quality of education. Quality improvement can be done with good management that focuses on improving the quality and international standards such as ISO 9001: 2008 applies Really Quality Control is expected to achieve effectiveness and efficiency of educational institutions.

The quality management system of ISO (International Organization for Standardization) can be adopted to improve the quality of learning subjects particularly productive subjects computer assembly. Implementation of QMS ISO 9001: 2008 in a study that focused on improving service quality of learning, which in turn have an impact on improving the quality of schools and quality of education. This is consistent with the statements made by Suardi (2003: 3), "The quality management system will provide assurance to customers that the company has the responsibility for quality and is able to provide products and services according to their needs" and Harjosoedarmo (2004: 73) " ISO QMS implementation can change the orientation of organizational culture on a culture of quality, which in turn can improve organizational performance ".

QMS ISO 9001: 2008 specifies requirements and procedures as well as recommendations for the implementation of learning. Requirements and procedures, and recommendations for QMS ISO 9001: 2008 is applied to the school management that is how the lesson plan will be documented in a lesson plan, the implementation process of learning that are tailored to the plans that have been made, monitor the smooth implementation of learning and evaluation after implementation. QMS ISO 9001: 2008 in the field of vocational education especially productive learning Computer Assembly aims to ensure a good learning process in accordance with the requirements and procedures to ensure the quality of education. Assembling a computer is one of the compulsory subjects and basic computer skills packet network which is one of the basic competencies to support the continued competence and computer assembly will be very useful after graduating from a vocational school.

CMS has implemented QMS ISO 9001: 2008 have to apply it in daily learning process them. So it should be a priority in order to improve the performance of human resources. In the world of education, including human resources is the principal, teachers, staff, students and parents. In terms of improving the quality of education and the role of learners print quality of teachers is the main thing. Therefore we need a teacher who has a good performance. Schools will begin to implement a Quality Management System (QMS) ISO 9001: 2008 will build on work instructions for each unit. Starting from principals, vice-principals, heads of expertise, teachers and employees have their respective duties.

Work instruction support unit to make it easier to perform tasks. Work instructions contain instructions for each activity in the SOP and lay down the criteria required by the work unit. Work instructions are executed once created the form. Form contains the desired data. Once the form is filled with data obtained, this form is called a record. Creating documents ISO 9001: 2008 ranging from level I to level IV, requires precision and uniformity in their respective personnel. Documents required by the standard. There are six documents of QMS ISO 9001: 2000, namely: (1) a quality manual; (2) the quality of the policy; (3) the quality objectives; (4) the duties, responsibilities and authority; (5) work instructions; and (6) the form of notes QMS ISO 9001: 2008. After that it can be implemented the necessary internal audit and audit SURVILANCE that issued the certificate QMS ISO 9001: 2008. Internal Audit in the implementation of QMS ISO 9001: 2008 is a very important activity and one of the procedures or clauses required in the implementation of QMS ISO 9001: 2008. Because the school is implementing QMS ISO 9001: 2008 have to do the measurement, analysis and improvement, schools must set out a number of activities related to measurement, analysis and improvement refers to the clause number 8 on the measurement, analysis and improvement. In clause 8.1 as well as the number of schools to plan and implement the monitoring, measurement, analysis and improvement are aimed at: (1) demonstrate conformity to product requirements; (2) to ensure conformity of the quality management system; and (3) continue to improve the effectiveness of the quality management system.

Observations were made Monday, September 14, 2015 investigators conducted preliminary research for a number of schools that have received and implementing QMS ISO 9001: 2008, among others SMK Negeri 5 Malang, SMK Negeri 8 Malang, SMK Negeri 10 Malang and SMK National Malang. From these results it can be concluded that the school acquired the certificate of QMS ISO 9001: 2008 for the school's ability to implement a quality management system that is supported by human resources such as competence of teachers, support staff and school community. However, there are still some obstacles in the field due to the reduced commitment, consistency and consequently some subject teachers productive learning provisions contained in QMS ISO 9001: 2008.

Differences in the quality of the learning process before and after the implementation of QMS ISO 9001: 2008, according to Sunoto (2012: 88) can be viewed in three dimensions: (1) set of learning strategies; (2) instructional delivery strategy; and (3) learning management strategies. Sunoto further research conducted in SMA Negeri 1 Sindang and organizational dimensions of vocational learning Losarang mention there was an increase of 9.25%, for the dimensions of the delivery of learning there was an increase of 8.19%, while the dimension of learning management increased by 6.95% before and after implementation of QMS ISO 9001: 2008. It can be concluded that the policy of QMS ISO 9001: 2008 can improve the quality of the learning process. When associated with the implementation of QMS ISO 9001: 2008 with Curriculum 2013 will strongly associated with the 2013 curriculum that emphasizes student learning plans for active and QMS ISO 9001: 2008 is a procedural work to ensure the quality of the implementation of learning.

Given the relationship between the implementation of QMS ISO 9001: 2008 by the quality of the learning process, it is necessary to determine the level of compliance with the study process subjects particularly productive subjects Assembling Computer Supported QMS ISO 9001: 2008, so as to optimize the quality of secondary vocational schools. See explanation above, the writer interested in conducting research entitled "Study on Implementation of QMS ISO 9001: 2008 Against the Learning Process Subject Assembling Computer Discount Computer and Networking Skills SMK in Malang".

METHOD

This study aims to determine the application of QMS ISO 9001: 2008 in the learning process and their impact on the results of certain subjects TKJ Computer Assembling membership program learn. The results of this study can be used as a reference in the evaluation of policy making with regard to the learning process and the implementation of ISO 9001: 2008 which has been implemented, so that later went smoothly, effectively and efficiently so the impact on school improvement. Quantitative methods are used when the problem is a deviation between that supposed to happen, with the implementation of the plan. Based on the background and the formulation of the problems that have been mentioned, this study uses quantitative methods to measure the effectiveness of teaching and learning process Assembling Computer-supported implementation of QMS ISO 9001: 2008 with the results for students at Computer Engineering and Networks program Middle expertise SMK in Malang.

The study consists of one independent variable (independent variable) and the dependent variable (the dependent variable). The operational definition of this study are: the independent variable (X) Implementation of QMS ISO 9001: 2008 in the learning process that the management systems approach to customer satisfaction in the field of design institutes, development, production and service. The dependent variable is (Y) is the Assembly Learning Outcomes Computer is as and evaluation to find information about the planning and implementation of learning asignment Assembling Computer.

The population of this quantitative study is from students in class X TKJ SMK Negeri Malang Se and qualitative data derived productive teacher. The sampling technique used by the researchers is proportional random sampling; sampling is adjusted by the ratio of students per school, so from 12 public schools that have a packet network expertise Computer captured five schools, namely: SMK Negeri 2, SMK Negeri 5 SMK Negeri 8 and SMK SMK 10 and 12. The one method used to determine the number of samples is to use the formula Slovin (Sevilla et al 2007 :. 182), as follows:

$$n = \frac{N}{1+N(e^2)} \qquad (1)$$

n = Samples
N = Population

Table 1: Number of Samples

No.	School	Population	samples
1	N 2 Malang	98	38
2	SMKN 5 Malang	136	53
3	SMKN 8 Malang	123	48
4	SMKN 10 Malang	173	68
5	SMKN 12 Malang	92	36
	amount	622	243

Sources of data in this study were (1) Document record / records related to the pattern of PDCA (Plan - Do - Check - Action) in the learning process and learning administration. (2) The results of the interviews conducted by the Principal, Vice management curriculum and quality of teachers and courses productive especially Assembling packages Computer skills Computer Engineering and Networks for a variety of information about its own implementation of QMS ISO 9001: 2008 in the learning process has been done in SMK. (3) Questionnaire given to students to obtain data on how the effects of QMS ISO 9001: 2008, to the learning process Assembling Computer.

Table 2 Sources of Data

No.	variable	Data source	Instrument
1	QMS ISO 9001: 2008	Teacher	Interview
2	Learning process	student	questionnaire
3	Values Competence Computer Assembling	student	Documentation

Before being used to collect data, research instruments will be tested in advance so that the data obtained can describe the condition variable is measured in accordance with reality. This study uses two trials, (1) the validation test performed on the content of the material world, the construction field and the field of language used. (2). Test the validity of the questionnaire was used to determine the level of accuracy of item questionnaire to measure what will be measured. (3). Reliabilities test questionnaire reliable say if these tests provide consistent results when tested repeatedly, or if the test result is changed, the changes that can be said by no means.

Table 3 Criteria Validity of Contents

No.	Percentage	Criteria
1	81% - 100%	Very high
2	61% - 80%	High
3	41% - 60%	Enough
4	21% - 40%	Low
5	0% - 20%	Very low

Formula:

$$\%Vsx \frac{Jumlah\ Skor\ Penilai}{Jumlah\ Skor\ Maksimum} x100\% \qquad (2)$$

Information: VSX = Validity contents

Table 4 Criteria Validation Items Questionnaire

criteria	Classification
Between 0.80 up to 1.00	Very high
Between 0.60 up to 0.80	High
Between 0.40 up to 0.60	Enough
Between 0.20 up to 0.40	Low
Between 0.00 up to 0.20	Very low

If R arithmetic> R table, the correlation is significant, meaning that the item is valid questionnaires.
Formula :

$$rpbis = \frac{X_1 - X_2}{SD_t} \sqrt{\frac{p}{q}} \qquad (3)$$

Information :
rpbis = correlation point biserial
X1 = the mean level 1
X2 = the mean level 2
Tsp = deviation of total deviation
P = proportion
q = 1 - p

Table 5 Criteria Reliability Questionnaire

power Reliability	kreteria Reliability
0.00 <r xy <0.19	Very low
0.20 <r xy <0.39	Low
0.40 <r xy <0.59	Enough
0.60 <r xy <0.79	High
0.80 <r xy <1.00	Very high

Formula:

$$r_{11} = \left\lfloor \frac{k}{k-1} \right\rfloor \left\lfloor \frac{s^2 - \sum pq}{s^2} \right\rfloor \text{ (arikunto,2008:100)} \qquad (4)$$

Information:
R11 = overall reliability test
P = proportion of subjects who answered the item correctly
Q = the proportion of subjects who answered the item with one (q-1 * p)
Σpq = the number of the multiplication of p and q
K = number of items
S = standard deviation of the test (the root of variance)

Data analysis performed in this study include descriptive analysis and quantitative (statistical). Descriptive analysis is used to describe the characteristics of respondents, and a description of the study variables. While the statistical analysis used to test the research hypothesis. This study tried to determine the effect of variables Quality Management System ISO 9001: 2008 with the improvement of vocational education Computer Assembling

RESEARCH RESULT

Results obtained in the form of qualitative and quantitative data. Quantitative data obtained from 1) the test instrument. 2) Test analysis criterion and 3) Test the hypothesis. Interview Model was used to obtain quantitative data.

Quantitative Data

1. Trial Instruments

The validity of the content carried by two teams of experts, Mr. Dr.Eddy Sutadji, M.Pd and Dr.Tri Atmadji S., M. Pd contents validation results are presented in Table 6.

Table 6 Results Validation of the contents of the expert team

No.	validator	percentage
1	Dr.Eddy Sutadji, M.Pd	81%
2	Dr.Tri Atmadji S., M.Pd	82%
	Average	81%

Based on table 6 it can be seen that the end of the instrument has content validity by 81%. Before use, it will be tested before class students who've studied the subject "Computer Assembly" C class XI TKJ SMK Negeri 5 and XI TKJ SMK Negeri 12 B Malang

The validity of the questionnaire used to determine the level of accuracy questionnaires to gauge what will be measured. Validity test is done in class XI TKJ SMK Negeri 5 and 12 Malang as many as 54 students, the results of testing the validity of the questionnaire were performed using SPSS 16 is presented in Table 7.

Table 7 Results of Student Questionnaire Validity Test Item

Item Questionnaire	Values count r	Information
Item 1	0614	worthy
Item 2	0619	worthy
Item 3	0463	worthy
Item 4	0574	worthy
Item 5	0727	worthy
Item 6	0626	worthy
Item 7	0649	worthy
Item 8	0698	worthy
Item 9	0500	worthy
Item 10	0598	worthy

Item 11	0334	worthy
Item 12	0535	worthy
Item 13	0602	worthy
Item 14	0678	worthy
Item 15	0418	worthy
Item 16	0675	worthy
Item 17	0606	worthy
Item 18	0574	worthy
Item 19	0453	worthy
Item 20	0537	worthy

From table 7 it is known that a valid point as much as 20 grains. After calculating the validity of the questionnaire we then tested reliability. Reliability test results for the student questionnaire for 0890 so that this issue can be categorized reliably with very high criteria.

2. Criterion test analysis

The test results of student's normality of the data presented in Table 4.3 and more (see attachment)

Table 8: Results of normality test

One-Sample Kolmogorov-Smirnov Test

		X	Y
N		243	243
Normal Parameters[a,b]	Mean	77.64	79.28
	Std. Deviation	6.934	6.213
Most Extreme Differences	Absolute	.076	.049
	Positive	.054	.049
	Negative	-.076	-.049
Kolmogorov-Smirnov Z		1.191	.767
Asymp. Sig. (2-tailed)		.117	.598

a. Test distribution is Normal.
b. Calculated from data.

Table 4.3 can be explained that the data has a normally distributed variable by looking at the significance value greater than 0.05. Linearity test results and student teacher data are presented in Table 4.4 and more (see the appendix)

Table 4.4 Results of linearity test

			Df	Mean Square	F	Sig.
Y * X	Between Groups	(Combined)	35	153.257	7.978	.000
		Linearity	1	4092.582	213.042	.000
		Deviation from Linearity	34	37.395	1.947	.003
	Within Groups		207	19.210		
	Total		242			

In Table 4.4 can be explained that the two data variables have a linear relationship to see the significance value less than 0.05.

Hypothesis testing is done by linear regression. The hypothesis tested is: H0: N is a positive influence between the quality management system ISO 9001: 2008 with Computer Assembling learning at SMK in Malang.

3. Hypothesis testing

Calculation results of hypothesis testing (linear regression) questionnaire with final scores of students can be seen in table 4.5, 4.6 and 4.7

Table 4.5 Table Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.662[a]	.438	.436	4.666

Predictors: (Constant), X

Rated R square of 0.438 means the ability of independent variables to explain the magnitude of the variation in the dependent variable is 43.8%.

Table 4.6 Anova

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4092.582	1	4092.582	187.943	.000[b]
	Residual	5247.945	241	21.776		
	Total	9340.527	242			

a. Dependent Variable: Y
b. Predictors: (Constant), X

In the same way by F test, then we can see from the sig. Since F arithmetic of 187.943 who have sig 00:00 less than 5%, it can be concluded that all variables have a significant effect on the dependent variable and the hypothesis is accepted.

Table 4.7 Coefficient

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	33.228	3.372		9.854	.000
X	.593	.043	.662	13.709	.000

a. Dependent Variable: Y

Proficiency level of output, the regression equation is:
Y = a + bX
Y = 33 228 + 0662 X 0593
From the table above have sig is less than 0.05, or 5%, it can be said that the independent variable is significant at the 5% level, and said significant then we will formulate hypotheses that have been received.

DISCUSSION

According Shutler and Crawson (Ariani, 2002: 308) states that educational institutions implement quality management system ISO 9001: 2008 should include seven (7) aspects of the graduates, prospective students, syllabus, teaching, teachers, exams, and leadership. Educational institutions in the city have been carrying out poor quality management system ISO 9001: 2008 with the right. Teacher as facilitator of the learning process into a study to measure the quality of learning, and inside there are three strategies that became the center of

attention (Uno 2011: 158). The third strategy is. 1) set of learning strategies. 2) Learning delivery strategy. 3) Learning management strategies. Teachers in the third thats a poor strategy.

The hypothesis states that "There is a positive influence between the quality management systems ISO 9001: 2008 in a study by the Computer Learning Outcomes Assembly at SMK in Malang". The hypothesis has been accepted by linear regression analysis of the test results. The findings of this study indicate that the implementation of QMS ISO 9001: 2008 had a positive impact of 43.8% in the learning process of Computer Assembling membership packages class X TKJ SMK Negeri productive in Malang. the teacher's role as facilitator of the learning process is very important, through the participation of student teachers will be more active and aware of the importance of the role of teachers as lecturers and tutors and providers of information to students.

CONCLUSION

From the discussion of the results of research that has been described previously, it can be concluded that: (1) Implementation of the learning process is supported by the implementation of QMS ISO 9001: 2008 at SMK in Malang include planning, implementation and assessment of learning processes that are tailored to the guidelines of the quality standards set by each agency; (2) The activities of learners with learning Computer Assembling subjects *had a mean* (average) 77.64 can be considered quite good; (3) The results of student learning computer assembly has a *mean* (average) 79.28 can be considered quite good; (4) There is significant influence prove the hypothesis testing results show the independent variable is the subject of the learning process of Computer Assembling (X) support the implementation of QMS ISO 9001: 2008 in the dependent variable is the result of learning (Y) with the coefficient of determination ($R^{2)}$ of of 0438 means that the ability of the independent variables affect the dependent variable 43.8%

REFERENCES

Anas, S. 1996. *Introduction to the Evaluation of Education.* Jakarta: Grafindo Persada

Ariani, D. 2002 *Quality Management: Approaches Qualitative side.* Yogyakarta: Higher Education.

BBC Indonesia. 2015. "The highest ranked Asian school globally, Indonesia number 69". Taken from: http: //www.bbc.com/Indonesia/magazines/2015/05/150513_majalah _asia_sekolah_terbaik, on July 18, 2016

Creswell, J.W. 2010. *Research Design Approach Qualitative, Quantitative, and Mixed.* Yogyakarya: Student Library.

Hardjosoedarmo, S. 2004. *Total Quality Management.* Yogyakarta: Andi Offset.

Ibrahim, R.N.S. 2003. *Lesson Planning.* Jakarta: Rineka Reserved.

Matri, N. 2008. *Implementation Fundamentals School of Management in the Era of Regional Autonomy.* Napier: Script Madani.

Mukhadis, A. 2003. *Organizing Learning Content Procedural type.* Malang: UM Press.

Murniati, A.R.U.N. 2009. *Implementation of Strategic Management.* Bandung: Library Media Pioneers.

Riban, M. & Isnandar. 2011. *Implementation of ISO 9001: 2000 On Productive Learning Building Expertise in Vocational High School.* Technology and Vocational Journal, 34 (2): 141-154.

Sevilla, C.G. et. al, 2007. *Research Methods.* Rex Printing Company. Quezon City.

Suardi, B. 2003. *Quality Management System ISO 9001: 2000.* Jakarta: PPM.

Sudjana, N. 2010. *Assessment of Teaching and Learning.* Bandung: PT. Teens Rosdakarya.

Sugiyono, 2009. *Educational Research Methods (Pendeketan Quantitative, Qualitative, and R & D.* Bandung: Alfabeta.

Sunoto, T.P. 2012. *Impact of Policy Implementation Quality Management System ISO 9001: 2008 on Quality of Learning Process in high school and vocational Indramayu District.* Thesis.UI.http://lib.ui.ac.id/file?file=digital/20292401-T29819-Dampak%20 implementasi.pdf

UNDP. 2015. *Human Development Report 2015.* New York.

Uno, H. 2011. *Model Pembelejaran: creating a learning process Kratif and effective*. Jakarta: Earth Literacy.

Semar Puppet Counseling Model to the Development of Multi Culture Counseling Practice

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Abstract: Puppet as the original local wisdom has a great role in the character building and giving a good example of how to behave, puppet is also the source or guidance of how to behave well. One of the figures in puppet that has strong characteristic as the leader, protector, patron, and also the guide for *ksatria* in taking the decision is Semar. Semar has the perfection ethic of Javanese person and raise as the core of the soul of Javanese people. Semar's wisdom can be applied in the development of multi culture counseling for Counselors and multi culture counseling characteristic. The characteristic of multicultural based Counselors are: (1) Prudent, (2) Helper, (3) Motivator, (4) Democratic, (5) Fair, (6) Associating, (7) Sustains on the objectives, (8) Responsible, (9) Teaching, (10) Wholeheartedly, (11) Well mannered, (12) Sincere, (13) Honest, (14) Faithful, (15) Unpretentious (16) Not an anti-critical, (17) Able to keep secret, and (18) Positive thinking. The application of Counseling based on the Semar's characters is offered to develop the practice of multi-cultural Counseling for the Counselors, it called puppet semar counseling model.

Keywords: counseling model, semar puppet, multi-cultural counseling

The civilization, especially the civilization of Indonesian people has been developing through culture. Based on Kluckhohn and Kelly, culture is every form of life that has been created historically, written or implied, rationale or irrational in a certain period of time as the potential guidance for human being. Corey (2010) stated that a complex culture has a philosophical basis and a self-thought in many ways, and in this case is counseling approach. One of the Javanese cultures that seem to be soul of the Javanese philosophy is Puppet (*wayang*).

Based on Achmadi (2003) Puppet (*wayang*) is *"wawayanganing manungso"*which means puppet is the symbol of life and human living, by understanding Puppet we will be able to live our life better. UNESCO (*The United Nations Educational Scientific and Cultural Organization)* at 7 December 2003 in Paris has decided Puppet as the *Masterpiece of The Oral and Intangible of Humanity* (*adiluhung*). It shows that puppet as the one of the traditional culture has be acknowledged internationally as a value of the formation and development of Indonesia national identity.

Mulyono (1983) stated that Puppet as the symbol of the language of life which is tent to be more spiritual. Puppet is the symbol that explains the existence of human in relation with the natural and supernatural thing. Puppet also has a strong relation with social life, culture, and the religious of Javanese people, for examples Punakawan are always become the favorite in every puppet show, the Punakawan represents the most people and they are the guides for *warrior* (ksatria). In Javanese puppetry, there is term called *sedulur papat limo pancer* that represents ksatria and their servant. *Sedulur papat* are Punokawan (Semar, Gareng, Petruk, and Bagong), *limo pancer* are *Pandawa Lima (kstaria)*, and they are: Yudistira, Arjuna, Bima, Nakula and Sadewa. Based on the Javanese spiritual, Semar represents *sukma* (soul), and Pandawa Lima represents body that tends to be careless weak, and the body needs soul to be

stable. It must be nurtured by the body's great teacher or leaders (pamong agung) to keep remember and alert (*eling lan waspodo*)

Based on Guritno (1976), punokawan represents human characteristics, Semar represents *Karsa* (Intention), Gareng represents *Cipta* (mind, thought), Petruk represents *Rasa* (feeling), and Bagong represents *Karya* (action). From those four figures, Semar is the role model. Semar, sometimes also called *Ki Lurah Semar* also known as great teacher or leader (*pamong agung)* or *Kyai* Semar, is also a great teacher or leader for others. Semar represents a tutor and also a leader, a guide of physical and spiritual of all *ksatria*. Semar also considered as God's revelation (*terang ilahi*) to establish a good moral (*welas asih, gotong royong*), merciful, and people oriented.

Krisna (2012) stated that Semar is comes from the word *ismar* which means nail, he is the one who make the truth stronger, just like nail. Semar is an unpretentious, calm, humble, genius, and knowledgeable. Semar has wise advices and also become a role model for others. Based on Hermawan (2013) in Javanese tradition semar has an alias, it called *Badranaya*, it comes from the word *bebadra* which means establishing the medium and *naya/nayaka* which means messenger, so semar also considered as a messenger of God to bring peace for human. Christanto (2013), Semar leads and give guidance to *ksatria*. The guidance is the wise advices and the action and it prevents *ksatria* from doing bad things.

The great values of Semar can be actualized in daily life; those are *cipta*, *rasa*, and *karsa*. *Cipta* is the power to create the image in our mind about life. *Rasa* is the soft feeling of ourselves and very often it gives us an impression. *Karsa* is the trigger of *Cipta* and *Rasa*, *Karsa* makes *Cipta* and *Karsa* become true. The understanding of human psychological aspects will determine them into psychologically healthy or not. Based on Corey (2010: 213) the perspective of basic human characteristics is important for therapeutic action. From many psychological theories around the globe, each of it can give the contribution to counselor to give the best treatment.

Based on that, it needs to conduct the research about the values of Semar in the application of counseling by the counselor. The objective of such research is the value of Semar contains ethics, life perspective, tradition, philosophy, which can be used in this heterogeneous country. According to Pedersen (1991), the approach of multi-cultural can be seen as the fourth aspects in counseling after psychodynamic, behavioristic, and humanistic. Counseling practice should be in line with the Indonesian culture. Collins and Arthur (2007: 31-49) stated that the counselors should aware their own culture, and it is in line with Wolfgang et al (2011: 1-16), the counselor should be able to internalize the local culture in their counseling.

Semar is the figure that has the same characteristics with today's educator, who responsible to educate people to become the one who have integrity, smart, humble, helping each other (Kresna, 2010: 67). Semar's value supposed to be a new counseling model, in order to prevent the cultural reduction and it is suitable with the Indonesia culture.

THE COUNSELLOR PERSONALITY IN COUNSELLING PRACTICE BASED ON THE VALUE OF SEMAR

Based on Atkinson, Morten and Sue (1989), a multi-cultural Counseling is the relation between a Counselors and his client in different ways such as: sex, sexual orientation, socio economics factors, and age. Based on the explanation of multi-cultural Counseling, it can be said that the model of Counseling in Indonesia is based on western model, especially United States, and this western model gives different result.

Indonesian culture which is in the same way is an eastern culture considers teacher and also Counselors as the one who have the same position as parents. Parents are also has a very

significant role in building the characters. In Javanese Culture, the obedience of children to their parents is very precious, a good child is the one who obey (*manut*) to their parents, and the one who does not obey their parents is not a good child. It is different in the United States; there the counseling is about the same situation between the Counselors and their Client (*konseli*). Counselors in Indonesia should have a strong characteristic and authority, even his role is a problem solver and a facilitator. This cultural barrier can emerge the reluctant of the client to take a spontaneous action if facing the Counselors individually. Clients (*konseli*) are hoped to be more spontaneous in a multicultural nuance.

Based on Nasution (2009), Semar has discipline, religious, and a warm feeling. Based on the textual concepts, Semar has values that can be applied in a multicultural Counseling process:

Prudent

Semar is smart, but in the other hand, he is the wisest figure. He is knowledgeable, and he is very powerful before Arjuna, even Semar is just servant (*batur).* Because of his knowledge and wisdom, he becomes a very significant figure before god, and his opinion is accepted by god. When *Bathara Guru* do something wrong, only Semar who are brave to correct him. Semar is also the one who can do action based on where he stands in every situation. Counselors should be wise in understanding himself, someone else, and the situation.

Helper

Semar very often helps *ksatria*, their students. As a Counselors, they should be also become a helper for their clients. Very often, Semar warn *ksatria* about the danger that has not come yet. When the *bendera* is in the hard situation, Semar is able to cheer him with his wise advice. In *Begawan Kilat Buwana*, when Pandawa is in a deadly situation by Kurawa, Semar helped them by removing *Begawan Kilat Buwana*. A counselor helps the client to solve the problem, help them to reduce one by one of their client's problem.

Motivator

Semar is always become a motivator for the *ksatria* to be the real *ksatria*. Semar motivates them to be stronger day by day and nothing to lose. In line with the Counselors, he should be able to motive their client to take responsible of what they do to solve the problem.

Democratic

Semar never push the *ksatria* to totally obey him, counselor's is hoped to not to push the client to totally obey their advice too. Ccounselor's may not give a personal judgment to their client based on their perspective.

Fair

Semar has friend from many elements in *jongring saloka,* such as ordinary people, government officer, and even god. In *Semar Kuning* story, Semar came in the form of human with fairness, honest, togetherness, and always say the truth. Counselors should be fair in giving Counseling without asking clients background.

Associating

Semar is always available when *ksatria* has no one to guide. Semar become a connector and balance maker between god and human in social and political life. Counselors applied this to his client to make them grow better.

Sustains on the objectives

Semar has role in keeping, caring, guiding, and giving solution toward the problem of his clients. Semar are always guiding *ksatria* to finish their job well. Counselors apply

the sustainable Counseling to the clients, so that the problem of the client will be totally solved.

Responsible

Semar tries to build a mental and the characteristics of all ksatria so that they are responsible of what they do. Counselors take this value to the clients so that the client wills e responsible with their problem.

Teaching

In the story entitled *Semar Boyong*, Semar teaches and told the ksatria that Punokawan will leave them if they act beyond the truth. In Counseling process, a Counselors teaches the client to be better, understanding their selves, take the decision and responsible of what they do.

Whole heartedly

In *Ladrang Clunthang* story, Punokwan totally give very wise wisdom to the ksatria dealing with their safety. Counselling process should be done in a professional framework. Counsellor has commitment that becomes basis in helping the client.

Well Mannered

His well-mannered behavior makes Semar very significant figure. His advice is always become a second opinion in taking the decision. A Counsellor should behave well before the clients so that they will not think twice in delivering their problems.

Sincere

Semar is known as the helpful person, but he does not hope for the reply. It should also be applied by the Counsellor, they may not hope for the reply from the Counselling they give.

Honest

In *Semar Kuning* story, Semar do many good things without any special intention. Semar represents honesty, simple, and even he is just a servant, but he also becomes teacher or parents for ksatria. It means he also has the responsibility to show the right way to the all ksatria. A Counsellor should ba able to become the one who has integrity, intelligence, honest, patience, and consistence.

Faithful

The faith and the integrity of Semar are unlimited. Semar, with all Punokawan make ksatria become stronger and better. Semar is honest, and this good character makes ksatria always obey Semar even he is just a servant. As a Counsellor, we have to build a good relationship with the client with harmony, dynamic, and creative.

Unpretentious

When he come the world, he come with honesty, but actually Semar is a undefeatable god. He is always humble even he can solve the problem. A Counsellor should be able to conclude the client's problem in the simple word so that the client will understand.

Not an anti-critical

Semar has all the characters the Indonesian people needs, it is able to accept critical and in other side keeping the secret. A Counsellor should be able to correct their selves and is able to accept the critical.

Able to keep secret

Semar is also comes from the word *samar* which means in the "grey area". Semar has the capability to *momong* and *momot*, *momong* means educate and *momot* means is able to keep the secrets. A Counsellor should keep his clients secrets and data.

Positive Thinking.

In communicating, Semar is always gives the positive perspective. His speech is mostly about giving advices. We as the Counsellor must always give the positive thing to our clients.

SEMAR PUPPET COUNSELLING MODEL

Counselling is the part of integrated Counselling model in school, and it is also an integrated program by the professional counselor. One of the skills that must be mastered by the Counsellor is the multicultural based Counselling. The knowledge and the mastery of multicultural Counselling will be very useful to give the Counselling in Indonesia for general, especially in region.

Ivey (2011) stated that the main competency that must be mastered by the Counsellor is multicultural based Counselling, this mastery will result a good condition in Counselling process. The knowledge of multicultural in counseling process is very useful because culture is the basis of a country (Matsumoto & Juang, 2003). Erford (2010) the knowledge of multicultural will add the recommendation in Counselling process.

Semar Puppet Counselling model was developed by concerning to the cultural based Counselling that is universally right. Semar Puppet is offered to the development of multicultural counseling practice. There is a perspective that the good result of counseling is based on the Counsellor who is concerned on the client's culture.

Semar Puppet counseling sees human based on the *sedulur papat limo pancer* concept. In every of us, there is soul and body, soul is the educator of our body, because body is too weak in making decision. Human life is based on the value of humanity itself, we are not a human is a wolf for other human (*homo homini lupus).*

Human has three characteristics; those are *cipto*, *roso*, and *karso*. *Cipto* is the power to create the image in our mind about life. *Roso* is the soft feeling of ourselves and very often it gives us an impression. *Karso* is the trigger of *Cipto* and *Roso*, *Karso* makes *Cipto* and *Karso* become true.

The objectives of Semar Puppet counseling is to help clients to be closer to God, to get Mahabbah/holy love (asmarasanta), as the medium of thinking that influence the soul. After diagnosed the problem, the next step is identifying that gained from: (1) *Jamus Kalimosodo*, (2) *Sedulur Papat Limo Pancer* Gospel (3) Reflective Dialogue (4) *Pancawisaya* Gospel, that is used to catch five things, they are: *Rogarda, Sangsararda, Wirangharda, Cuwarda* and *Durgarda.*

The step of Semar puppet counselling are: (1) Beginning, the assesment that is done to analuze the emotion, (2) Working process giving *treatment* to the cognitive aspect which is the central aspect of intervention in Semar puppet counselling that is simultaneously bring the influence in desire and emotion, using the relevance technique, and (3) Last step, The counselling process may be finished if the clients has beyond the truth.

REFERENCES

Achmadi, A. 2003. *Filsafat dan Kebudayaan Jawa*. *Upaya Membangun Keselarasan Islam dan Budaya Jawa*. Semarang: Cendrawasih.

Asosiasi Bimbingan dan Konseling Indonesia. 2007. *Rambu-Rambu Penyelenggaraan Bimbingan dan Konseling dalam Jalur Pendidikan Formal* (NaskahA kademik). Bandung: ABKIN.

ASCA .2005. *The ASCA National Model: A Framework for School Counseling Programs. Michigan:* The American School Counselor Association.

Corey, G. 2010. *Theory and Practice of Counseling and Psychotherapy*. Belmont, CA: Brooks/Cole.

Christianto, W.N. 2003. *Peran dan Fungsi Tokoh Semar Bagong Dalam Pagelaran Lakon Wayang Kulit Gaya JawaTimuran*. *Jurnal Humaniora*, 15, 285-301.

Collins, S. & Arthur, N. 2007. *A Framework for Enhancing Multicultural Counselling Competence*. *Canadian Journal of Counselling*, 41 (1): 31-49.

Erford. T.B., & Danica G.H. 2010. *Developing Multicultural Counseling Competence Counselor: A systems approuch*. 2nd Edition. USA: Pearson

Firmanto, D. 2012. *EpistemologiPunakawan*. Yogyakarta PaguyupanWayang.

Gibson, R.L & Mitchell, M.H. 2011. *Bimbingan dan Konseling*. Yogyakarta. PustakaPelajar.

Guritno. 1985. *Lordly Shades; Wayang Purwa Indonesia*. Jakarta: Published Through the Genorosty of Bapak Probosoetedjo.

Hermawan, D. 2003. *Semar dan Kentut Kesayangannya*. Yogyakarta Diva Press

Hepner, P.P., Wampold, B.E., & Kivlinghan, D.M. 2008. *Research Desain in Counseling* (3rd ed.). California: Thomson Brooks/Cole.

Ivey, E.A. 2011. *In the Special Issue on Multicultural Social Justice Leadership Development.* Guest Editor: Carlos P. Zalaquett, University of South Florida

Krisna, A. 2012. *Dunia Semar. Abdi Sekaligus Penguasa Sepanjang Zaman*. Yogyakarta Diva Press

Matsumoto, D. & Juang, L. 2003. *Culture and Psychology*. 2nd Edition. Belmont, CA: Wadsworth

Mulyono, S. 1983. *Apa dan Siapa Semar*. Jakarta: CV Haji Masahung MCMLXXXII

Mulyono, S. 1978. *Wayang Asal Usul, Filsafat dan Masa Depannya*. CV Haji Masahung

Morten, G., & Sue, D.W. 1989. *Counseling American Minorities: A cross-cultural perspective*. Dubuque, IA: Brown

Nasution, M.I. 2009. "*Semar Gugat" dalam Telaah Tokoh: Sebuah Model Pemaknaan Naskah Drama. Journal State University of Padang*

Nelson-Jones, R. 2011. *Teori dan Praktik Konseling dan Terapi,* Edisi Keempat. Terjemahan Soetjipto, P.H & Soetjipto, M.S. 2011. Yogyakarta: Pustaka Pelajar.

Pedersen, C.H. 1991. *Multicultural Counseling*: *from diversity to Universality. Journal of Counseling and Development*

Purwadi. 2014. *Mengakaji Nilai-Nilai Luhur Tokoh Semar*. Karwa Publisher Yogyakarta

Wolfgang, J., Frazier, K., West-Olatunji, C., Barrett, J. 2011. *Developing Cross Cultural Competence: Applying Development and Prevention Ideals to Counseling Young Children*. *ERIC Institute of Educatioan Sciences*.

Behavioural Finance: The Literature Review of Myopic Loss Aversion

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Abstract: Behavioral finance is a theory that tries to analyze the psychological bias that is less noticeable in the standard financial theory. In this theory, there are a lot of behavioral biases that occur in investors that can cause them to make costly mistake when making decisions. This article focuses on the most common, and the most costly, of all the biases that cause perfectly rational people to make irrational investment decisions that is Myopic Loss Aversion (MLA). The purpose of writing this article is to explain the MLA as a whole, their consequences, and how to avoid it. Myopic loss aversion (MLA) is a combination of the two theories, namely behavioral loss aversion and mental accounting. Loss aversion refers to the fact that a person will tend to be more sensitive to losses than profits. While mental accounting refers to a series of cognitive actions undertaken by economic agents in managing, evaluating, and maintaining financial activities.

Keywords: Behavioral finance, myopic loss aversion

Behavioral finance provides an important role in decision making by investors as the development of investment activity in the capital market. Investment decision will be influenced by a variety of information obtained and the knowledge and experience of investors in handling such investments. Investment decisions an investor has been seen from two sides, namely, (1) the extent to which such decisions can maximize wealth (economic factors), and (2) behavioral motivation, i.e. investment decisions based on the psychology of investors (Christanti and Mahastanti, 2011).

Financial theories have been developed previously as portfolio theory of Markowitz (1952) and the Efficient Market theory of Fama (1970) became one of the guidelines for investors to optimize their investment funds. Standard financial theories generally assume rationally thinking investor in making an investment decision. A rational investor would normally be inclined to think to maximize the wealth of the investments made. In this case, investors will be looking for as much information as possible, such as information on the company's financial statements, the company's performance, risk, economic conditions, inflation, interest rates, and so forth. However, along with the development of financial management sciences, particularly related to investment in capital market theory, many researchers are seeing a shift in the tendency of investors in determining investment decisions. Example is the psychological aspects that can affect the behavior of investors more familiar with the concept of behavioral finance.

Indeed, in reality, investors are not always rational thinking. The investors in the capital market often display irrational behavior and take action based on the judgment that is far away from the assumption of rationality (Suryawijaya, 2003). Therefore the concept of behavioral finance ranging widely was studied by researchers in seeing the behavior of investors in the capital market. Behavioral finance relating to individual and methods for collecting and using information. Behavioral finance try to understand and predict the implications of the financial market's systematic psychological decision processes. In addition, behavioral finance focuses

on the application of the principles of economics and psychology to an increase in financial decision making (Olsen, 1998).

Behavioral finance or behavioral finance is a theory that tries to analyze the psychological bias that is less noticeable in the standard financial theory. In theory, there are many behavioral biases that occur in investor that can cause them to make mistakes when making investment decisions. In the concept of behavioral finance say that the investment decisions made by investors consider aspects of the economy, especially non-psychological aspects that may affect the behavior of investor. This is because investors are in fact often perform actions based on the judgment and contrary to the theory that had been raised in the capital market on the assumption of rationality. The market may react quickly to information (as required by the Efficient Market Hypothesis), but the influence of the reaction it may be more influenced by the element of subjectivity, emotion, and various other psychological factors (Suryawijaya, 2003).

The concept of behavioral finance into account various types of investors in view of the risks associated with any investment decision. According Bailard, Biehl & Kaiser (an investment institution in California, USA) as quoted by Suryawijaya (2003), there are five types of investors in the capital market. The first group is a group of adventurers (adventurers), which generally is a group that ignored the risks or even liking (risk takers). They assume that where there is a risk it will be even greater the returns are, so they often ignore the advice of its financial advisors. The second group is a group of celebrities that consist of people who always want to look, stand, and into the limelight. They often do not care about cost-benefit calculation of the investment, provided that their decision to buy or sell securities seen and heard by many people. The third group is a group of individualists who tend to work alone and do not care about other people's investment decisions. This group tends to avoid high risk and do not mind the risk of being moderate and more rational. The fourth group is a group of investors that guardians are more "mature", more experienced and knowledgeable. This group tends to be cautious in making investment decisions and is more risk averse. The latter is a group that is not explicitly included in the above group is better known as a group of straight arrows. These groups sometimes are risk averse and sometimes risk takers. On the other occasion can also be individualists, and at other times more revealing nature follow the crowd.

Based on the various types of investors, hence a lot of research was trying to investigate the behavior of investors in making investment decisions. It is then expressed in the concept of behavioral finance that many investors who tend to stray from the assumption of rationality and the more expensive aspects of non-economic (psychological aspect) in making investment decisions.

In 1979, Kahneman and Tversky conducted a study by introducing the theory that emphasizes the psychological aspects of investors that prospect theory (the prospect theory) which explains that a person prefers the realization of profits than loss or person experiences a sense of fear of loss (loss aversion) resulting in avoidance of big risk. This research inspired the emergence of subsequent research that emphasizes the aspects of psychology or behavioral finance,

Basically the topics raised in this research also led to the theory of behavioral finance. The analysis in this study focused on the behavior of investors in risky investment decision-making process is based on the theory of myopic loss aversion (MLA) of Benartzi and Thaler (1995). Myopic loss aversion (Benartzi and Thaler, 1995) describes the combination of the two theories of behavior, which is loss aversion and mental accounting. Loss aversion refers to the fact that a person will tend to be more sensitive to losses than profits. Someone said to suffer from loss aversion when awareness in focus on losses (losses) on the profits (gains) (Haigh and

List, 2005). This is reflected in prospect theory (the prospect theory) that the empirical claim that the sensitivity of investors against losses is two times greater than the sensitivity to profit

Mental accounting refers to a series of cognitive actions undertaken by economic agents in managing, evaluating, and maintaining financial activities (Thaler, 1999). Furthermore, Pompian (2006) states that mental accounting refers to the activity of coding, categorizations, and evaluating financial decisions. In certain cases, mental accounting discussed on how a transaction evaluated over the time (for example concerning how often a portfolio evaluated) and cross-sectional (e.g., whether the transactions are evaluated based on their portfolios or evaluated individually) (Thaler et al. 1997; Haigh and List, 2005). Broadly speaking MLA can be described as a situation where an investor is constantly evaluating its investments as if afraid to be at a disadvantage, because the emotional impact generated when the loss is greater than in times of profit.

LITERATURE REVIEW

Behavioral Finance

Barberis and Thaler (2003) in Bodie, Kane and Marcus (2008) describes the behavioral finance as a financial market model that emphasizes the potential implications of the psychological factors that influence the behavior of investors. Sewell (2008) define Behavioral Finance is a "study of the influence of psychology on the behavior of financial practitioners and the subsequent effect on the market". It can be concluded that Behavioral Finance is an assessment of the psychological factors that influence investors in making investment decisions. After receiving the information and facts, investors make decisions based on factors cognitive and emotional factors. The problem is these two factors are very susceptible to bias or irregularities.

1. Cognitive Bias: Cognition is the process of understanding, processing, and conclusion on the information or facts. Cognitive biases describe irregularities or errors in the process.
2. Bias emotional: Emotional feelings and spontaneity is more focused than the facts. Describe emotional bias error of judgment because it ignores the fact.

Behavioral finance explicitly can be defined as the application of psychology in the disciplines of finance (Pompian, 2006). This theory began to develop in the 1950s, where Burrell (1951) and Bauman (1967) when it has started to incorporate elements of psychology in their research. Meanwhile, Slovic (1969, 1972) has been writing articles about the investment decision-making process in terms of a behavioral perspective.

In understanding the behavioral finance theory (behavioral finance) need to be understood in advance who the investors are. According to some financial experts who are members of Bailard, Biehl & Kaiser (an investment institutions in California, United States) said that basically investors in the capital market can be categorized into five models (the five-ways model) that is adventurous (adventures), celebrities, individualists, guardians, and straight arrows (Pompian, 2006; Asri, 2003).

The adventurers usually do not care about the risk even liked it (risk takers) that makes them tend to ignore the advice of financial advisors. Celebrities are a group of investors who seem to want to stand out and be the center of attention in the capital market. This tendency makes them want to look not too take into account the costs and benefits of an investment as long as their trading activity known to many people. When the two kinds of investors dominate the market, then the market will be far from rational.

Individualists a group of investors who prefer to work alone and do not care about the investment decisions of others. Guardians consist of investors-investors who are more

experienced, which is relatively wider knowledge. Because of the experience and knowledge of this, they tend to be more cautious in making investment decisions. In general, two kinds of investors to meet the assumption of rationality in standard finance theory. The last category is the straight arrows, where the group is sometimes to be risk averse, but at other times can be risk-takers, so that these groups cannot be categorized into four groups advance.

In addition to understanding some groups of investors, it should be understood also characteristics that often occur on the investor as heuristic dealing to information, overconfidence, and the psychology of sending messages (Fromlet, 2001; Shiller, 2000; Nitsch, 1999, and Goldberg, 1999 cited in Asri, 2003; as well as Kahneman and Tversky, 1979). Heuristic dealing to information is an action to interpret the information quickly and (expected) appropriate, by relying on a number of thoughts (cognitive) and intuition (affective) owned by investors. Overconfidence is excessive self-confidence, in which an investor was already highly skilled in stock trading when only a few times to get a capital gain from the results of his trading. Meanwhile, the psychology of sending messages can be defined as the difference between the response of investors to the translation of a story.

Thus, in addition to using the "ratio", investors often use "emotion" in making investment decisions. Both "cooperate" in forming a short term response and long-term behavior of man, in which at certain moments that ratio will dominate investors in making investment decisions, whereas in other circumstances the possibility of emotions that will dominate (Wendy, 2010). To explain the emotion, Elster (1998) showed several factors that can trigger human emotions such as confidence factor (beliefs), intentional objects, physiological expressions, a tendency to act (reaction), and physiological symptoms.

Beliefs are a belief in "something", for example, investors decide to buy shares. WNY because he felt confident the issue would be beneficial to him. Intentional objects explain the relevance of emotions with specific objects (people, goods, or state). Emotions one can "rise" when they see the success of people (investors) otherwise they will try to compete with the success of the person. Physiological expression can be expressed through a person's behavior when responding to "something" for example, jump, laugh, or even cry (Frijda, 1986 in Elster, 1998). Emotions are also often associated with a person's inclination (investor) to action (reaction). Some elements of emotion that often influence a person to do "something" like anger, regret, fear, joy, even love, all of which would result in a person's mood changes Wendy (2010).

These explanations indicate that the behavioral finance developed to complement the standard financial theory that investors tend to ignore psychological factors. Behavioral finance is actually a theory that tries to explain the psychological investor's bias or emotional condition that cannot be explained by standard financial theory. Wendy (2010) revealed that with the inclusion of psychology in financial studies, the expected results of future research is no longer simply answering the question "what", but also able to answer the question "why".

Myopic Loss Aversion

Investment portfolio theory states that the expected rate of return (expected return) and risk (risk) are the two conditions are directly proportional. This shows that the higher the rate of return expected by an investor, the higher the likelihood that it will face the risk level. Because of the risk factors inherent in each unit expected return is expected, and then an investor needs to do a comprehensive analysis before making an investment decision. Thus, investment decisions will ultimately depends on the ability to analyze and courage of the financiers themselves.

The choice to invest in safer assets irrespective of the level of higher returns in the capital market is a phenomenon that is very difficult to explain the economic model and become a puzzle for researchers to date. Therefore, in financial theory, the equity risk premium is often also referred to as the equity premium puzzle (Siegel and Thaler, 1997). Mehra and Prescott (1985) attempted to analyze the phenomenon of the equity premium puzzle by using stock returns and bond. Their empirical findings only explained that the high level of risk aversion that can be used to explain why most investors choose to save the bond. Furthermore, Benartzi and Thaler (1995) combines the two concepts of behavior that is loss aversion (Kahneman and Tversky, 1979) and mental accounting (Thaler, 1985) which was later called myopic loss aversion (MLA) to build the theoretical foundation in observing the equity premium puzzle.

Their degree of risk aversion that differ from one individual to another individual's behavior is one of the factors put forward by Kahneman and Tversky (1979) in prospect theory, which was later referred to them as loss aversion. Someone said loss averse (Kahneman and Tversky 1979: 279) when he does not like betting symmetric (50:50), as well as their evasion rate against the bets will increase according to the increase in the absolute size of the stakes. Furthermore Kahneman and Tversky (1979), and Starmer (2000) explains that, the notion of loss aversion is equivalent to a utility function, in which a person is more concerned with the loss of the profits. Thaler (1999) explains that in general people will feel more 'sick' when losing a hundred dollars compared to the excitement at the time a hundred dollars. Furthermore Thaler (1999) suggested to relieve the 'pain' is a way to combine them with a greater level of profits. Studies of some of these studies indicate that the loss aversion basically refers to the difference in utility between losses and gains on a wager that has the absolute size of the same.

Mental accounting developed by professor Richard Thaler of the University of Chicago (Pompian, 2006; Haigh and List, 2005). Mental accounting itself can be interpreted as a series of cognitive actions of economic actors in managing, evaluating, and maintaining financial activities (Thaler, 1999). On the other hand, mental accounting can also be interpreted as a system for recording and summarizing business transactions and financial transactions in the book, then analyze, verify, and report the results (Thaler, 1999). Furthermore, Pompian (2006) states that mental accounting refers to the activity of coding, categorizations, and evaluating financial decisions.

According to Thaler (1999), mental accounting includes three main components. The first component relates to how an outcome is perceived and used as an experience, as well as how to make decisions, and then evaluate the decision. The second component involves the activity for elaborating a detailed account, for example, to group the sources and use of funds to be labeled properly. The last component includes the frequency of an account is evaluated. The more frequently an account evaluated then someone will be more careful in making further decisions. Account has then to be evaluated periodically rebalanced. Furthermore, Barberis and Huang (2001) stated that mental accounting would happen if a person think and evaluate their financial transactions regularly.

CONCLUSION

Behaviorists have noted a tendency for investors to check the performance of their portfolios too frequently. If an investor checks his holdings on a daily basis, he will experience many days of losses. Conversely, the longer the time frame between checks, the less likely it is that the portfolio will experience losses. Given that investors feel the pain of losses far greater than they feel the pleasure of gains, they are likely to not only experience disappointment if they check their portfolios with great frequency, but they are more likely to panic and sell as the pain of losses becomes intolerable.

How can myopic loss aversion impact investment results? Investors that check on the values of their portfolio with great frequency are more likely to be subject to this particular bias. And with the advent of the Internet age, most investors now have the capability to check on their portfolio's valuation in real time, with great ease – subjecting themselves to the pain of losses with great frequency. This pain, caused by myopic loss aversion, can easily cause them to stray from a well-thought-out investment plan. This is especially true in bear markets when the frequency and intensity of the pain are high. Thus investors become susceptible to buying high and selling low.

To avoid myopic loss aversion, one of the first things to do is to write out your investment plan and always take it with you wherever you're going. So when there is an unexpected situation happens, you can put yourself in a better position to put dramatic market action into its proper perspectives and avoid falling into this behavior trap.

REFERENCES

Asri, M. 2003. *Ketidakrasionalan Investor di Pasar Modal*, Pidato Pengukuhan Jabatan Guru Besar Pada Fakultas Ekonomi Universitas Gadjah Mada Yogyakarta, tanggal 6 Desember.

Bauman, W.S. 1977. Scientific Investment Analysis: Science or Fiction?, *Financial Analyst Journal,* Jan-Feb.

Barberis, N. & Ming, H. 2001. Mental Accounting, Loss Aversion, And Individual Stock Returns, *The Journal of Finance,* vol. 56, no. 4, pp. 1247-1292.

Benartzi, S., and Richard H.T. 1995. *Myopic loss aversion* And The Equity Premium Puzzle, *Quarterly Journal of Economics,* vol. 110, pp. 73–92.

Bodie, Z., Alex, K. & Alan J.M. 2006. Investments. Buku 1 dan 2, Terjemahan Zulaini Dalimunthe dan Budi Wibowo. Jakarta: Penerbit Salemba Empat Burrel, O. K. 1951. Possibility of an Experimental Approach to Investment Studies, *Journal of Finance,* June.

Christanti, N. & Mahastanti, L.A. 2011. *Faktor – faktor Yang Dipertimbangkan Investor Dalam Melakukan Investasi.* Jurnal Manajemen Teori dan Terapan I Tahun 4 No. 3, Desember 2011

Cooper, D.R. & Pamela, S.S. 2006. *Metode Riset Bisnis,* vol. 1, Jakarta : PT Media Global Edukasi.

Elster, J. 1998. "Emotions and Economic Theory, *Journal of Economic Literature*, vol. 36, no. 1.

Glatzle-Rutzler, D., Sutter, M. & Zeileis, A. 2013. No *Myopic loss aversion* In Adolescents? An Experimental Note. Working Paper in Economics and Statistics. The University of Innbruck. Austria

Haigh, M.S. & John A.L. 2005. Do Professional Traders Exhibit *Myopic loss aversion*? An Experimental Analysis, *The Journal Of Finance,* vol. 60, no. 1, pp. 523-534.

Kahneman, D. & Amos , T. 1979. Prospect Theory: An Analysis of Decision Under Risk, *Econometrica,* vol. 47, pp. 263–291.

Kahneman, D., Jack, L. Knetsch. & Richard, T. 1990. Experimental Test of The Endowment Effect And The Coase Theorem, *Journal Of Political Economy,* XCVIII, pp. 1325-1348.

Markowitz, H. 1952, Portofolio Selection, *Journal of Finance*, 7, 77-91.

Mehra, R. & Edward, P. 1985. The Equity Premium: A Puzzle, *Journal of Monetary Economics,* vol. 15, pp. 145–161.

Olsen, R.A. 1998. Behavioral Finance and Its Implications For Stock-Price Volatility. *Financial Analysts Journal,* Vol. 54, No. 2, pp. 10-18.

Pompian, M.M. 2006. *Behaioral Finance and Wealth Management – How to Build Optimal Portfolios that Account for Investor Biases,* USA: John Wiley & Sons, Inc.

Siegel, J.J. & Richard, H.T. 1997. Anomalies The Equity Premium Puzzle, *Journal of Economic Perspectives* , Vol. 11, pp. 191 -200.

Slovic, P. 1969. Analyzing the Expert Judge: A Study of a Stockbroker's Decision Process, *Journal of Applied Psychology,* vol. 54, no. 4, August.

_____. 1972. Psycological Study of Human Judgment: Implication for Investment Decision Making. *Journal of Finance,* vol. 27, no. 4.

Starmer, C. 2000. Developments In Non-Expected Utility Theory: The Hunt For A Descriptive Theory of Choice Under Risk, *Journal of Economic Literature,* vol. 38, pp. 332–382.

Suryawijaya, M.A. 2003. *Ketidakrasionalan Investor di Pasar Modal*. Pidato Pengukuhan Jabatan Guru Besar pada Fakultas Ekonomi Universitas Gadjah Mada. Yogyakarta.

Thaler, R.H. 1985. Mental Accounting and Consumer Choice, *Marketing Science,* vol. 4, pp. 199–214.

Thaler, R.H., Amos T., Daniel, K. & Alan. S. 1997. The Effect of Myopia and Loss Aversion on Risk Taking: An Experimental Test, *Quarterly Journal of Economics,* vol. 112, pp. 647–661.

Thaler, R.H. 1999. Mental Accounting Matters, *Journal of Behavioral Decision Making,* vol. 12, pp. 183-206.

Thaler, R.H. 1993. *Advances in Behavioral Finance,* New York: Russell Sage Foundation.

Tversky, A. & Daniel, K. 1992. Advances In Prospect Theory Cumulative Representation Of Uncertainty, *Journal of Risk and Uncertainty,* vol. 5, pp. 297-323.

Tversky, A. & Daniel, K. 1991. "Loss Aversion In Riskless Choice: A Reference-Dependent Model, *The Quarterly Journal of Economics,* November, pp. 1039-1061.

Wendy. 2008. *Myopic loss aversion* Dan Perilaku Pengambilan Keputusan Investasi Berisiko: Studi Eksperimental. Universitas Gajah Mada. Yogyakarta.

Clarify The Nature of Guidance and Counseling of Learning

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Abstract: guidance and counseling of learning is one of the services against student counselor at the school, other than a private tutoring service-social, and career guidance services. The issue is, the counselors themselves have not been clear about the nature of the guidance and counseling of learning, how broad in scope, space and how to carry it out is still a blur. Nature of the guidance and counseling of learning is a process of learning support is given to children of normal/relative-– both are having problems or learning difficulties so that they can carry out the learning events because it has been prevented or resolved the difficulty. The scope of the guidance and counseling of learning only include students with relatively normal. While the students, who was has learning disorders (learning disorder) do not include guidance and counseling of learning. Tutoring methods are evocative affective domain the student so that he can push himself to learn. Evocative it for example through learning motivation, the creation of an atmosphere of fun, learning how to learn effectively, information processing, and the empowerment of the brain to learn.

Keywords: guidance and counseling, learning effective, evocative, affective learning, information processing methods.

Prior to clarify the nature of the guidance and counseling of learning as the topics in this paper, the third note in advance that concept one i.e., guidance, counseling, and learn. The third limitation on the concept was important because of the nature of the guidance and counseling of learning left understanding each of those concepts.

Guidance is counselor helping is that in the end are individuals able to help himself. Effective learning guidance is an effective form of counselor assistance grant of information how to learn that in the end the students themselves who directs himself in the manage-self, time, facilities, and the strategy--to learn so obtained a significant behavior change. The meaning of counseling is a reflection and discussion of a problem that is facilitated by a counselor so that counselee gets way out of the difficulties it faces. Counseling of learning in students who start learning difficult or hard to concentrate is the discussion in counseling against the causes of occurrence of studying and seeking alternative solutions for counselee. A student who has learned that sufficiently completes but he is lazy to learn. Through counseling, counselors learn to diagnose the difficulty that is not fond of sitting down to learn but enjoy playing or chatting with friends. Learning is a process of individuals to acquire a new capability by way of observing, imitating, try, memorize, and practice so that the retrieved new behavior i.e. the knowledge, attitudes, and new skills. This learning process always takes place because human beings are learn, not only adapt but also proactively create and shape the world around (Kolb, 1984).

THE NATURE OF GUIDANCE AND COUNSELING STUDY

The basic nature of the trio it combined so that it becomes the nature that complements each other. Guidance with the nature of the aid combined with a means of learning help students

to learn. Counseling with nature is the study and solution of problems then counseling of learning is the study of individual issues that inhibit the occurrence of learning and finding a solution the solution. Conduct learning activities learning driven by counseling (guidance curriculum) and counseling (responsive component).

How the relationship between the three? Learning the position was gained influence while the guidance and counseling as the position of the giver of influence. The relationship of the three can be seen in the following image:

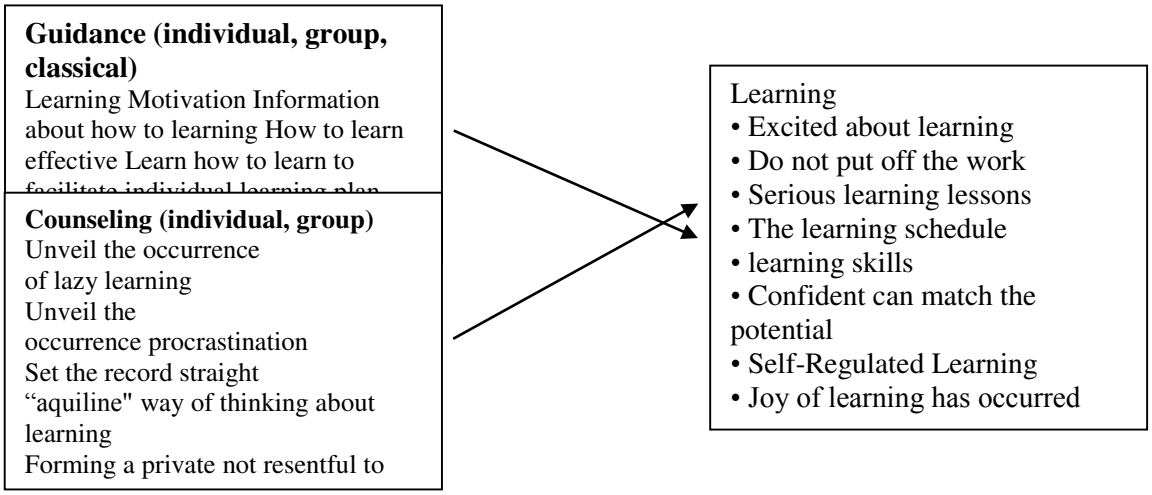

Figure 1: Relationship guidance and counseling and learning

Based on the nature of guidance, counseling, learning and the relationship between the three of them then the guidance and counseling of learning can be formulated as the process helps students with the evocative aspect of affective to someone in order to be motivated to learn, to learn the ways of learning so that someone chooses an effective way of learning for her students and made him give the reward against the results of the study, so that in the end he learned with pleasure.

Any help or guidance and counseling service learning here that question is the evocative aspect of affective on the students that he is motivated to learn. Why this aspect of the approach? First, because the behavior of learning starts from urge and need to learn to achieve a goal. Without affective-motivational-then the psychic energy, strong impetus to achieve the goals, appreciate the value of learning will not arise in a person. Second, the taxonomy of the affective aspect is partially counselor. The Counselor gave rise to the learning motivation, learning strategy or how to introduce effective though more information to arouse students learning. Third, the counselor doesn't guide the subject matter because in addition to the unethical, but mainly he is not competent.

It evokes the affective can be assumed to include a gong within a student. People who enter the gong were in the context of guidance counseling learning is the school counselor. Through the efforts he instills the value of learning for students then gong it can fit within the students. Gong was to enter and reside in the hearts of students or occupying a position of the superego. If others (counselor) rings it, then the gong that resonates or buzzed: study, study, study and so on many times depend on how many times and how strong a student living with persuade of counselors. Eventually, gong it will read itself when students forgot to learn or too much play with sound the same i.e., learn, learn, learn and so on.

THE RELATIONSHIP COUNSELING AND GUIDANCE COUNSELLING OF LEARNING

In "genetics," guidance and counseling of learning is the child of its parent i.e. guidance and counseling itself. As a child, he inherited his mother's nature i.e. guidance is a process, assistance given to children who are normal, with the usual problems, aiming to realize maximum self-development.

Relationship counseling and guidance counseling of learning can be showed at follow scheme.

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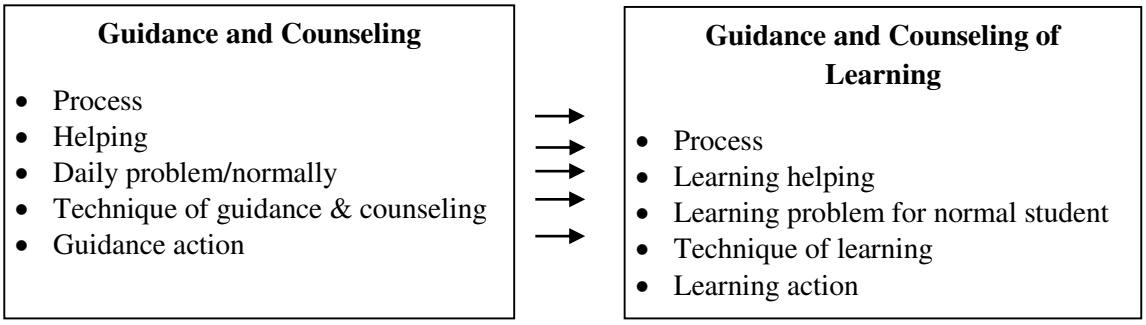

Figure 2: Inheritance guidance and Counseling to the guidance and Counseling of learning

In the scheme, seen that guidance and Counseling of learning as a child inherits nature from its “parent” i.e. guidance and counseling. Inherited properties as follows:

The Process

As the nature of its “parent”, guidance counseling is also a learning process. The formation of a habit of good learning, acquired a learning skill is through stage by stage, not incidental. Students who originally studied because there is an exam then become as regular learning require conditioning formed in a long time. Students who do not have the skills to read books can now read the book effectively certainly requires a gradual and long training anyway.

Learning Aid

Assistance provided in guidance counseling of learning is a learning aid. It was such a learning aid: learn about student learning development, identifying the factors that affect learning, diagnose learning difficulties, giving information on how to learn, explains the physical conditions and psychological study, give motivation on the importance of learning, forming personal students who would love to learn.

Common learning problems

Guidance counseling Study addressing learning problems which are common i.e. learning problems experienced by students every day for example lazy learning, learn if there was a repeat, delay-delay the study, unskilled and making notes summarizing the lessons, and unskilled making reports and writings.

Indeed realized that the learning that happens when there is a change in behavior. The consequences of this definition are any guidance and on the level of anything as long as it brings a change of behavior is tutoring. But because the guidance counseling confers a benefit on the guidance aimed at child guidance counseling then normal learning dealing with learning problems which are common in normal children. Normal children's learning problems: the problem of the conditions of learning, learning motivation problems/low goals, the problem of lack of information about how to learn bad habits, problems in learning, the issue is less skilled in the study, the problem of self-manage, for example, are less able to manage himself well so learning events being overlooked.

Learning Technique

Guidance counseling of learning provides information or teaches learning techniques are generally applied to students in learning. The technique of using the SQ4R reading the book teaches how to read in General. Student is done public readings that transfer to the respective fields of study. Techniques learned in other engineering among others noted, following the lesson, how to summarize, how to prepare for exams and so on.

Implement a Learning Event

A learning event is not an event mechanism. He was not the biological events or sheer brain and senses work. He also is a psychological event. In it there is the urge to start learning, there is a goal to be achieved, and there is the influence of the atmosphere round and so on. In other words, put a child to learn is the result of various factors.

If he is willing to learn then it came to learning events, namely: learning to read, write, memorize, try something, fix errors, mimicking how to swim, kick the ball, makes the induction, deduction, making the analogies, explains to the others, solve problems and so on. Qualitatively, the learning event is interpreted environment (Shah, 2003). Learning events are successfully removing humans from a State of "dark" which handcuff in ignorance.

SCOPE OF THE GUIDANCE AND COUNSELLING OF LEARNING AS TECHNOLOGY ASSISTANCE

The scope of the guidance and counseling of learning include the things that need to be studied by the Counselor so that he is able to carry out guidance and counseling of learning, and learning what types of problems to be addressed counselors. Things that need to be learned Counselor as follows.

1. The meaning of learning it-self. Counselors need to know that learning it is a process that changes in behavior as a result of learning to be gained students gradually. Counselors also need to know that there are a number of paradigms about learning, for example, the cognitivist paradigm, behaviorism, paradigm constructivism paradigm, and so on.
2. Learning that starts from a boost in motivation or encouragement in the form of affective-psychological impetus that drives a person to learn. Without it, a person will not start learning regardless of how full the learning facilities, high intelligence, and good health. According to Marzano (1992) there are 5 dimensions of learning, where the first dimension of attitude and perception, the following acquiring and integrating knowledge, extending and refining knowledge, using knowledge meaningfully, and habits of mind.

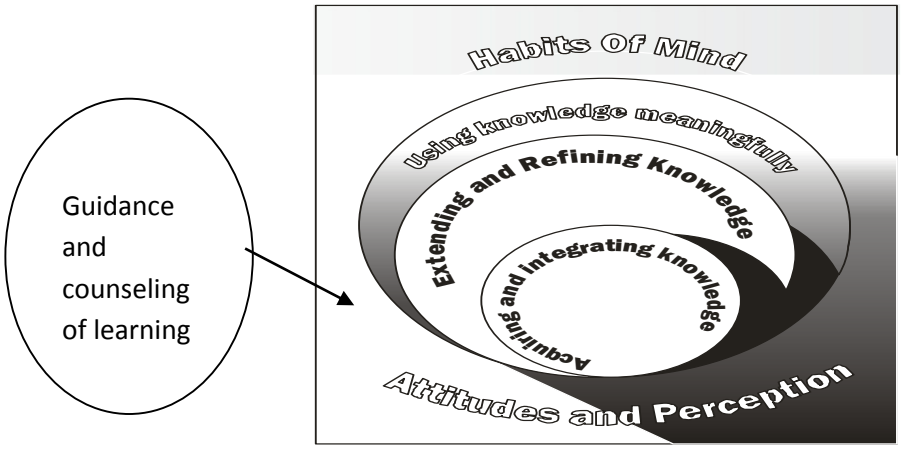

Figure 3: the five dimensions of learning

3. The occurrence of behavior learned as well as the results of the study itself is affected by two major factors i.e., internal and external.
   a. Internal factors include the two big things i.e. the physiological and psychological. Sub factor physiological include: brain injuries/damages, birth complications, accident, brain tumors, and hemorrhages illnesses such as encephalitis and meningitis, untreated glandular disorders in infancy, infant hypoglycemia, malnutrition, exposure to toxic chemicals: pesticides, radiation to skull and chemotherapy treatments for cancer, incidents, smoke inhalation, carbon monoxide poisoning. While the psychological sub factor include: intelligence, interests, internal motivation, aptitude, and attitude, and self-affrication, self-management, cultured like forward.
   b. External covering social and non-social sub factor. Social Sub factor: family members, teachers/friends at the school, motivation (external), improve the situation. Sub factor nonsocial: climate, the layout of the house, learning facilities, and requirement of graduation.
4. Learn has types, levels, and styles of learning
   School counselor or teacher needs to know the types of learning and learning levels so that it can distinguish types of learning and grades when he undertakes the guidance of learning.
   a. Types of Learning

      According to A. De Block (Winkel, 1987) divides the types of learning based on psychic functions: dynamic learning, learning, cognitive, affective learning remote motor. If a lot of new students in a school that has not had the life skills counselor then gives the dynamical learning services namely learning against a things that haven't really mastered in order for individual progress. For the sake of progress, individuals have to be selective in choosing activities and other needs, such as delaying the money it is better to pay lodging house than to feast on.

      When counselors want to let students learn to feel, live up to, respect, expressing the value of an object or activity by exerting the natural feeling so obtained various feelings then he was performing affective tutoring. One example is the affective learning e.g. learning to appreciate the hard work, learning the shame if err, learning to hate corruption, learn compassion and learn to acquire or empower or having other types of feeling. People are not moved to the affective learning or not feel an atmosphere of psychological perceived other people usually have the blunt feelings (illiterate emotion). This kind of peoples like when there's a funny he silent, people applaud amazed he was silent, even when a family member did not die, nor did he cry. Guidance counseling of

learning teaches the students should still have the feeling that blunt or sharp becomes sensitive then this type of learning is affective.

b. levels of Learning

Gagne (1985) suggested eight levels of learning, namely (a) learned the cue or signal learning; (b) studying stimulus-response or stimulus-response learning; (c) learning series or chaining learning; (d) study of verbal or verbal associations association learning; (e) any discrimination or differentiated learning learning; (f) studying the concept or concept learning; (g) studying the rule or rule learning; and (h) studying problem solving or problem solving learning.

With respect to the learning levels, counselors need to be aware that a student in the school of experiences all levels of learning. Therefore, in organizing a tutoring service, counselors need to identify the level of learning that will be the focus of considering. On learning gestures, the learning process starts with a gesture, a sign or instructions that affect the process of behavior change. In this example the counselor gives an example: a student who were noisily in the classroom will stop talking when getting the cue ' index finger are crossed in the mouth ' teacher, the rider of the vehicle will certainly stop the vehicle in the intersection or intersection when the traffic light red color.

The learning process in a simple gesture can be described as follows. The learning process is designed in such a way so that includes the cue and the cue to understand concept which, in turn, will deliver the deed. Learn through gesture occurred when the student has the ability to respond to in reflex. One thing that should is always remembered by the teacher that every student has a different reflex responsiveness.

Likewise was learning to tell the difference. Learn to distinguish refers to the process of learning to understand something by way of looking at the difference in the characteristics of the observed objects and/or studied. By seeing these differences, the individual can understand things, the atmosphere, events, or other objects that are in the environment. For example, (a) distinguish between humans based one ethnicity; (b) distinguish countries based on the rate of its growth; (c) distinguish animals based on the types of food eaten, or (d) distinguish the vegetation upon the nerves of the leaf.

Tutoring services with the goal of keeping students succeed in distinguishing ' learning, ' then the process services should: (a) exposes to students at least two things that each have distinctive characteristics, for example the difference a good person and a person who is fair (b) gives to the student to understand two or more different things such as the way lays out fair and good behavior (c) presents the types of mankind so that students can hold a classification and (d) teaching students held a generalization and differentiation in the types of human beings.

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Counselors can also provide learning services solve problems, when students use a variety of concepts or principles to solve the issue at hand. The question such as why many students major in the natural sciences, social sciences and languages instead? Why are many students who do not like the grunt work at home? Why I'm always procrastinating studying? Learning ' problem solving ' refers to the mental processes of individuals in the

face a problem and the struggle to find how to fix the problem through a process of careful and systematic thinking.

In General, counselors teach problem-solving steps: find or feel any problem, formulate the problem in particular in the form of a question or statement, give answers (hypotheses), collect and process data/information for the test or whether the right answers in the meantime, formulating conclusions about problem solving.

c. learning style

Everyone has his own style in the process information or in other words every person has its own learning style. The Counselor should give service to students so that they are aware of its own learning style. In general there are three learning styles. The first is a visual learning style. This learning style relies on sight on an object or event. They prefer the look of diagrams, text books pictorial, OHP transparencies, videos, flipcharts, and materials (hand-out). The second is a learning style that relied on audited votes. Students who have this type of study usually: actively participate in discussion or debate, likes to talk and do a presentation, like reading text aloud, creating short tunes to help memory, likes to discuss ideas orally, and uses the analogy of oral. Third is the kinesthetic learning style that relies on the movement of the body. Usually they are around to learn new things, like doing something rather than have to pay attention or listening, like drawing or create strokes to help remember something, like the class is alive and dynamic, quickly at first reading (skimming) then read it back in more detail (scanning).

THE WORKINGS OF GUIDANCE COUNSELING STUDY

How it works or how to implement the guidance and consoling learning based on learning in how it happened or how one obtains the results of the study. Here's how to implement the guidance and counseling of learning.

Affective Aspect Evokes the Counselor of the Students

In doing something, one is usually driven by motivation: necessity, compulsion, and goals. Psychologically, it started from the learning aspects such as affective attitudes and perceptions, and motivation. Someone will have a certain mindset and knowledge if the beginning of a positive attitude towards learning. In the laws of occurrence of behavior generally known that the organism reacts to stimulus in the environment that is affected by the set i.e. mental state or readiness of a person. So counselors must touch the set, attitude, or perception that learning is important.

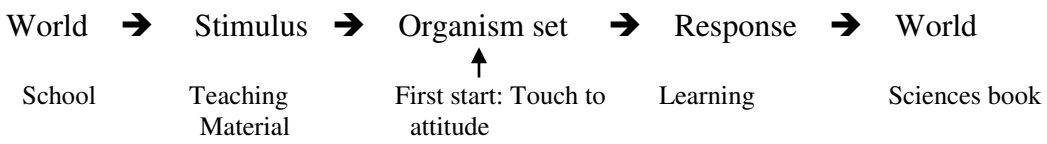

Figure 4: Empowering affective aspect

The Counselor was Aware of Information Processing

This way of working is based on the knowledge acquisition process i.e. through information processing. Counselors teach students that if students follow the processing information correctly then it will gain knowledge.

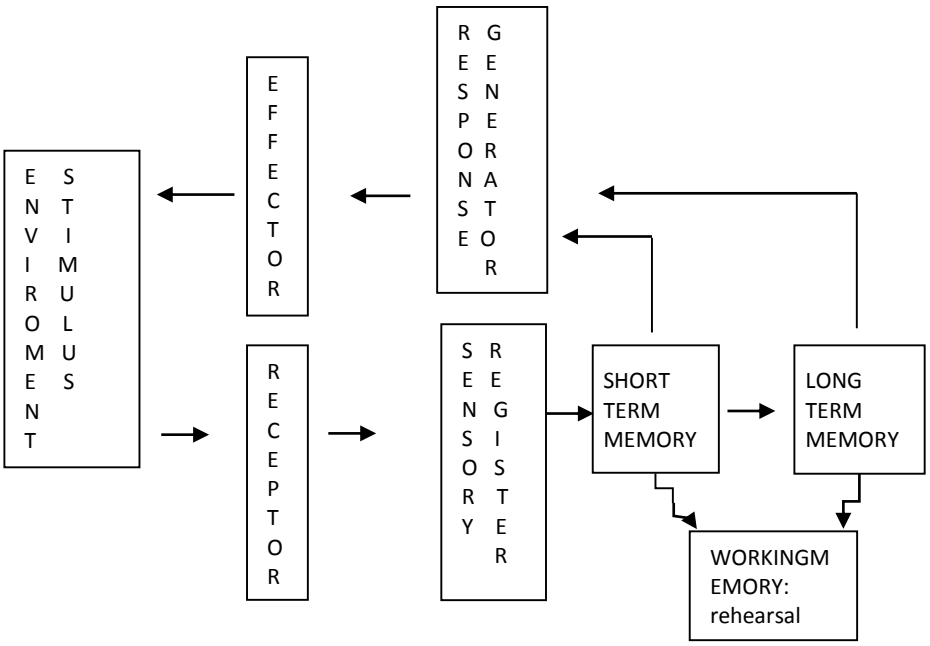

Figure 5: Information Processing

Based on the information processing scheme, the Counselor should be taught that if a student wants to have knowledge then he should follow processing of the information in the following components. In the stimulus, a student should pay attention to the teacher's explanation. On the stage of receiving/recapturing the five senses which the gate to the inclusion of science is so that the eyes and ears of healthy is a requirement. At this stage of the brain's Sensory register verbal or nonverbal information recorded is being observed by an individual. The information is converted into neural information by neurotransmitters in the brain in the form of an impression against that information. The impression which was encoding namely how to understand the form of sort, summed up and so on. In the Short Term of Memory (STM) or Working Memory individual store information that is being processed by our thoughts. STM functions are: 1) while the information store for a short time, 2) STM does mental operations such as troubleshooting, comparing something, counting is simple. In addition the STM serves as a stimulus in the parser's brain will: 1) forget or discarded, 2) held him in a way over and over, 3) process information into LTM. In the Long Term Memory exists in the form of memory episodic such as memory that stores our personal experiences. Semantic memory is part of the LTM store of facts, concepts, generalizations, problem-solving strategies, and thinking ability. At this stage of Response Generator accommodate information stored in LTM and turn it into a plan of answers/deed. At this stage of Effector: the results of information processing in the implementation centers (effector) that will produce an action in the form of answers to oral, written, and deeds.

Counselors Empower Brain as Motor Learning

In terms of neuroscience, learning that involves working from the central nervous system namely the brain. The human brain has four lobes: frontal lobe, parietal lobe, lobe temporalis, and occipitals. On the frontal lobe there is cerebrum (brain), which is the brain's learning; there is intelligence, willpower, motor, and language. On the frontal lobe of the brain, is divided into two i.e. the left hemisphere and the right hemisphere and with a division of labor. Both hemispheres were connected by a membrane called the corpus callosum. Right hemisphere is managing most of the left side of the fuselage and the left hemisphere to manage most of the right side of the body.

The two hemispheres have Division of labor in the processing of the contents or material information. Right brain processes information that is primarily nonverbal i.e. the stimulus not with words but rather information obtained from experience and the experience of the symbols that are nonverbal. The experience of everyday life, including learning in class were first processed in the form of nonverbal perceptual differences, for example (large small, far-near, and so forth), the description of the vision (oh ... its shape as it is), orientation to time and space, interpersonal activities, and so on. The symbols of this experience can be a description of an event, the sound, the motion of the hand, or the quality and quantity which describes the spatial or temporal environment.Left brain processes information that is mainly verbal i.e. words abso rbed using the means of language. The experience gained can be expedited processing mentally after this experience translated in "code" in the form of words. "Code" this is not another conceptualization experience, or interpret experiences it. Processing of both sides of this verbal and nonverbal was sometimes in such a separate processing of so called intra hemisphere i.e. in one of the parts of the brain alone i.e. left or right only. The left and right hemisphere is depicted Sukadji (1989) on some images as follows:

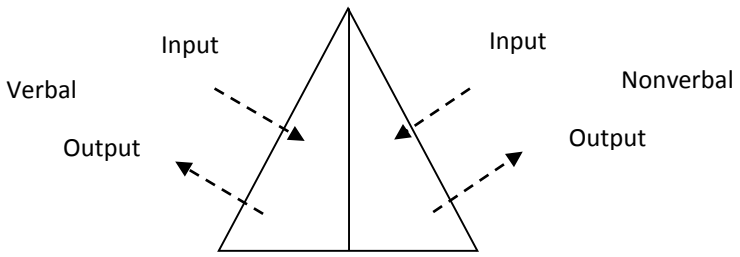

Figure 6: Intra hemisphere Process (Sukadji, 1989)

When the two hemisphere work together (one bridge as translators to change from one side to the other side of the equivalent) then it is called a processing inter hemisphere nature. For example, when a child asked recounts her experiences of time riding horses or see the animals at the Zoo or gestures magician he must translate the content experiences that are nonverbal to verbal in experience to communicate in verbal symbols.

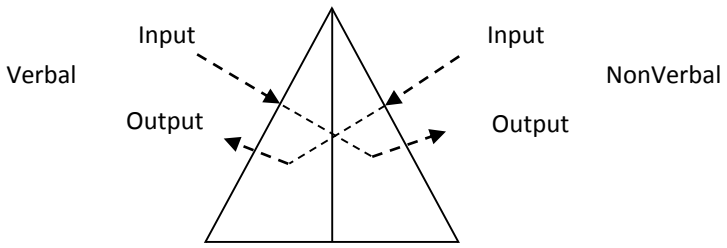

Figure 7: The Process of Information on Inter hemisphere (Sukadji, 1989)

In many ways the content of verbal or nonverbal integrated such that processing not only translates from one hemisphere to another hemisphere, but it is cooperation both at the integrative. This kind of processing is called processing a hemisphere integrative nature.
In providing tutoring, a counselor can train one hemisphere only or both or a combination of both. Training on one hemisphere is aiming to train a verbal or nonverbal only. While inter hemisphere is training aims to let the child learn nonverbal converted into verbal and verbal instead converted into nonverbal gestures. The existences of the theory of multiple intelligences of Howard Gardner (1999) then expected counselors doing the tutoring services can empower logic-mathematic intelligence, language; music, naturalistic, interpersonal relationships, and a kinesthetic understand you.

Learning Strategies

After moving the affective aspect and encouraging brain, guidance and counseling of learning also uses learning strategies. The use of learning strategies is one of the ways of empowering the brain in learning. For example, the nature of the brain usually like going to regularity then learning strategies used are preparing the material systematically using the scheme, using the comparison table, sorting process consecutively, and summarize the material in the form of a mind map.

Learning Management

Someone who has moved to learn and empower his brain still requires management study. As a systematic behavior change program, self-regulated learning is a strategy that allows a person in charge of their own learning. Individuals actively involved in their learning will improve learning achievements (Zimmerman, 1994). Study of self-regulated learning designed to increase desired behavior or reduce undesirable (Rohwer, 1984). Habits of college students to learn set your-self very positively, particularly in planning and using appropriate study techniques, thus will add excitement and motivation to continually learn. Mason (2004), further stating that this method helps students gain the ability govern them-selves and discipline in learning activities. Self-regulated learning puts the importance of a person's ability to learn the discipline of organizing and controlling yourself, especially when facing the difficult tasks. Self-regulated learning also stressed the importance of the initiative. Students who have no initiative to empower their thinking, feeling, strategies and the vagaries act to achieve the objectives (Zimmerman, 2002). Students who take the initiative, active, creative, and dynamic will tend to show the behavior of the dynamic and active. Thus if the students want to succeed in learning then the thoughts, feelings, and behavior strategy, he organized and directed to achieve these goals.

CONCLUSION

In closing, here is emphasized again that guidance and counseling of learning is the process of helping students with the evocative aspect of affective to someone in order to be motivated to learn, to learn the ways of learning so that someone chooses an effective way of learning for her students and made him give the reward against the results of the study, so that in the end he learned with pleasure. This understanding is important so that the Counselor does not get stuck in the wrong sense such as guidance and counseling of learning is to teach or hold remedia teaching on students who are having difficulty learning.

The following things that need to be addressed that guidance and counseling of learning it is a process. With reciprocity, a counselor realized that the results of their learning guidance will be seen in subsequent periods is not at present. It also needs to be known by teachers and parents so that they do not expect the child changed drastically in quick time.

It needs to be realized by the counselor that counseling has learned it scope complex being formed in the factors, the types and levels of learning. In it there are various factors which affect or shape it. A student experiencing learning difficulties may be caused by birth complications affecting the brain or nerves could have been because he was malnourished or less learning facilities, or lack of motivation or a child exists in a cultural environment that is less appreciated the results of the study. He may be having a hard time on the type and level of study.

In addition to the scope, guidance and counseling of learning have the procedural workings by relying on information processing in the brain. This means learning guidance counseling has a neuroscience: a knowledge acquisition process) starts from affective information processing, b) start of the entry of the information to be stored and issued with a back that information is an internal processing that involves psychological factors and brain work. The brain works can be facilitated by the completion of the self, the preparation of environment, preparation of learning materials, and the use of an effective learning technique.

REFERENCES

Gagne, R.M. 1977. *The conditions of learning*. New York: Holt, Rinehart & Winston.

Gardner, H. 1999. *Intelligence Reframed*. New York: Basic Books.

Kolb, D.A. 1984. *Experiential Learning: Experience as the source of learning and development*. New Jersey: Prentice-Hall Inc.

Marzano, R.J. 1992. *A Different Kind of Classroom: Teaching with Dimensions of Learning*. Alexandria, Verginia: ASCD.

Mason, L.H. 2004. Explicit Self-Regulated Strategy Development versus Reciprocal Questioning Effects on Expository Reading Comprehension among Struggling Reader. *Journal of Educational Psychology*, 96 (2), 283-296.

Sukadji, S. 1989. *Kumpulan Naskah Kesulitan Belajar.* Jakarta: Universitas Indonesia.

Syah, M. 2003. *Psikologi Belajar*. Jakarta: PT RajaGrafindo Persada.

Rohwer, W.D. 1984. An invitation to a development psychology of studying. In F.j Morrison, C,A Lord & D.P Keating (eds). *Educational Psychology*, no.1, pp. 1-57.

Winkel, W.S. 1987. *Psikologi Pengajaran*. Jakarta: Gramedia.

Zimmerman, B.J. 1994. Dimensions of academic self-regulation. A conceptual framework for education. In D.H. Schunk & B.J Zimmerman (Eds), *Self-regulated learning and performance: Issues and Education applications* (pp. 3-21). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Zimmerman, B.J. 2002. Becoming A Self-Regulated Learner: An overview. *Theory Into Practice*. vol.41. number 2, Spring-Autumn, pp 64-70.

The Role of Internal Auditor in Public Sector

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Abstract: In controlling a country where the public accounting profession, the various company and forms of legal entities occur and burgeon. The government needs a substantial fund to lead the country. Therefore the use of funds which distributed effectively and efficiently to the public sector must be supervised by a qualified auditor in order to create accountable financial statement and prevent the opportunities to misuse the budget in government area. Therefore, the regional inspectorate has the authorities to oversee the running of the government in order to improve accountability and transparency in financial management in each area. The accountability itself can be materialized by the internal auditor. The purposes of this study are designed to find out whether the internal auditor of local governments understands and carries out their role adequately or not. The results of this study are expected to provide new insight into the public sector as well as the inspectorate in maximizing the role of its internal auditor.

Keywords: Literature Review, Local Government, Internal Auditors

In the government sector, there are three main aspects that support the creation of good governance, namely monitoring, control and inspection. The government audit is expected to support the successful implementation of the state administration and public finance management in an orderly manner, obey the laws and regulations, efficient, economical, effective, and transparent. Therefore, an audit is important to know how your actual role of the audit to the absence of irregularities in carrying out duties as audit

Examination (audit) is an activity undertaken by the party that has the independence and professional competence to examine whether the results of the government's performance in accordance with established standards (Mardiasmo, 2005). In the central or local government, there are external and internal audit. External audit carried out by the financial oversight agencies (BPK) while the internal audit conducted by BPKP and Inspectorate.

Currently a lot of problems in Indonesian government audit occur to the public such as weakness in the internal control system and non-compliance with the laws or regulations. Overview of the semester examination results (IHPS) one year in 2016 issued by the financial oversight agencies (BPK) indicates that there are findings which includes 15 568 cases, including 7,661 internal control system weaknesses and problems of non-compliance with the provisions of 7907 legislation (BPK IHPS, 2016). In line with this situation, the role of internal auditors questioned.

Auditor Internal

In conducting an audit, there are the differences between public and private sector. The difference caused by the differences in institutional and legal background, where the public sector audit has procedures, different responsibilities and a broader role than the private sector audit (Wilopo, 2001).

Public sector auditing not only examine and assess the fairness of the financial statements of the government, but also the apparatus of government in assessing compliance with laws and regulations. In addition, public sector auditors also inspect and assess the performance which include: saving (economical), efficient and effectiveness of all jobs, services, or programs conducted by the government (SPKN, 2007).

According to Boynton et al (2003), the function of internal auditor is to implement an internal audit function carrying out an independent assessment of an organization to examine and evaluate the activities of organizations. Internal audits of government should be able to reveal all of its findings ranging from corruption, offense against the law or violations of standard operating procedures, acts that can lead to a loss financially, or non-financial reporting resulting impact on audit quality.

Role of Internal Auditors in the Public Sector

Internal audits of government should be able to reveal all of its findings ranging from corruption, offense against the law or violations of standard operating procedures, acts that can lead to a loss financially, or non-financial reporting resulting impact on audit quality. So that, the government's internal auditor holds a very important role in the creation of accountability and transparency of local finances.

Furthermore Badjuri and Trihapsari (2004) says that accountability and transparency is intended to ensure that the financial management of the government which have been done by the government officials running well. Good public financial management should be supported by public sector audit quality, hence the need for the auditor understands of the roles as an audit.

In Indonesia the limited number of studies that assess or investigate the role of government audit and the number of studies related to the audit quality using a quantitative approach. Several previous studies examining the audit quality related more emphasis on audit quality attributes such as on research conducted by Samelsonet al., (2006) shows the results no relationship between independence and involvement with the audit team leader audit quality perceived. Husam et al (2013), entitled *Factors affecting the quality of auditing: the Case of Jordanian Commercial Bank* where one of the researches uses the independence to see the quality of the audit as well as more research uses attributes to assess the quality of the audit. But there is a study that examines how the role of the internal auditor of government in minimizing fraud committed by Nur Jong et al (2015) in the Journal of Accounting Multiparadigma such research aimed at understanding the role of internal auditors of local government in an effort to minimize fraud. Research method used is ethnomethodology environment Songulara district government. In these studies found that internal auditors of local government is "Doctor" fraud. Nevertheless, "Doctor" fraud has not been able to carry out its role to the fullest, because of the lack of competence of the internal auditors, and the lack of commitment from top management and related elements in local government. Other findings indicate that the informant simply "fade" the mandatory nature of the assignment given

In the study described their shift in the role of internal auditor originally a controlling financial transactions, has now been increased role as a consultant. To support the achievement of one of the goals their internal auditors within the scope of local government is to minimize *fraud, it* needs sharpening the role of internal auditors in preventing and detecting *fraud,* so that it expects the central and local governments provide sufficient space for auditors carry out its role and function optimally. Thus achieving the goal can be accomplished local governments accountable.

Internal Auditor government is more focused on providing error correction of the recording and coaching members of the unit that is part of government auditing. In the context

of this study, the internal auditors sufficiently understand their role not only as an examiner, but also as a controller. Auditor as controller has a higher purpose than just examiner, if an auditor role as controller, and then he must supervise properly what is done by the government in the area, and how they carry out their activities. If there are things that are distorted, the internal auditor has the obligation reprimanded and directed that the implementation of the activities run accordingly. In short internal auditor's role is to ensure that all the processes that exist within government to achieve development goals have been implemented in an accountable. It is important for internal auditors to understand well the role that they run as internal auditor of local government.

REFERENCES

Boynton, W.C., Jhonson, R. & Walter, G. 2003. *Modern Auditing Seventh* Edition.Erland: Jakarta.

Elfarini, E.C. 2005. Effect of Competence and Independence Auditor of the Audit Quality.Semarang State

Falah U.S. 2005. Effects of Organizational Ethical Culture and Orientation Sensitivity Ethics to Ethics. *Unpublished* thesis. Diponegoro University

Lowensohn, S., Johnson, L.E., Elder, RJ. & Davies, S.P. 2007. Specialization Auditor, Audit Perceived Quality, and Audit Fee in the Local Government Audit Market. *Journal of Accounting and Public Policy 0f,* 26705-732.

Mardiasmo. 2005. *Public Sector Accounting* Edition 2. Publisher Andi. Yogyakarta

Mardiasmo. Realization 2006 Public Accountability Through Transparency and Public Sector Accounting: A Means *Good Governance. Government Accounting Journal* Vol. 2, No. 1

Nur, G. & Djamhuri, J. 2015. Auditor inernal as Doctor Fraud in Local Governance. *Journal of Accounting.* Multiparadigma. Malang

Zamzami, F., Mukhlis., Annissa, E.P. 2014. Public Sector Financial Audit for Local Government Finance Report. Yogyakarta: Gadjah Mada University Press

The Development of Batik Tajinan in District of Malang

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Abstract: In national development, small and medium industry (SMI) has a strategic role to the national growth, employment and the distribution of development outcomes. Batik is usually only known from solo, batik is now already exist throughout Indonesia, including Malang and has become part of the Small and Medium Industries. However, in Tajinan, Batik management looks like a single fighter. This study aims to determine: (1) the factors that influence the development of the batik industry in Tajinan (2) the efforts that have been made by the government in supporting the development of batik industry in Tajinan (3) The strategy that should be done by the government. The approach used in this study is a qualitative descriptive, type of research is a case study. Based on data analysis, the conclusion (1) The supporting factors affecting the development of industry in Pandanmulyo Tajinan is a factor of labor, capital, production system used, the materials and tools necessary production, markets, governments, and businesses themselves. Factors inhibiting the development of batik in Pandanmulyo Tajinan is a factor mindset of society, priority business owners, access to business, government and carrying capacity less than the maximum. (2) The role of government in supporting industries batik Pandanmulyo Tajinan include providing equipment assistance, venture capital, training, and marketing. (3) The strategic measures that the government should do, establish strategic alliances around Tajinan and create a cluster in Pandanmulyo Tajinan.

Keywords: Development, Batik, Strategic Alliances, Cluster

In 1998, Indonesia has experienced a crisis that shook the economy back then. Yet, big industries were out of business and many dismissed the employment relationship, SME precisely employed and run well in overcoming the crisis (setyawan, 2007). Due to the robustness, small and medium industry (SME) has been developed to be able to evolve independently, and eventually lead to the welfare of society. In its own national development, SMEs have a strategic role to the national growth, employment and the distribution of development outcomes.

Nowadays, SMEs batik hasalready existed everywhere. Batik is an Indonesia's cultural heritage which is originally a hand-crafted product that serves as a customs purposes or identical objects with sacred activity. Now batik increased functionality as disposable items everyday functions more practical, especially as clothing materials. Currently, batik has the function of profane (everyday) and the sacred (religious), (Masiswo, 2011). UNESCO has acknowledge batik as an Indonesian cultural heritage on October 2, 2009 (Detiknews, 2009). Pride in cultural heritage and diversity of functions, create more diverse batik motifs and patterns arising from typical of each region.

Furthermore, Malang regency has a wide range of batik motifs that attract the public interest. But when people hear batik Tajinan from District of Malang Regency, then known Batik Pandanarum assisted by Mrs. SitiAslamiah. Not because of her industrialscale is the greatest yet due to the persistence Mrs.Siti which makes the industry is better known. In this

case, Mrs. Siti appears as a single fighter in batik industry in Tajinan Malang since she iswell-known asthe only batik producer.

LITERTURE REVIEW

Industry Development

The words “pengembangan” in the Indonesian big dictionary is defined as "the process, ways, actions, developing" (the drafting team of KamusBesar Bahasa Indonesian, 1997). According to (Pamuji, 1985), he suggested that development is: "a development that is changing something so that it becomes a new and owned a higher value. .. ". The development of several definitions can be concluded that the development is any attempt or act to promote, improve, regularly and gradually in order to improve something that already exists as expected.

In the establishment of a field of small and large businesses, of course, is based on one specific goal to be achieved. The achievement will be able to run properly if the company has the ability to be able to optimally manage all the resources they have. As is the resources that are managed by the company in management science Sukarno (1986: 46) are:

a. Man: human labor.
b. Money: the needed money.
c. Methods: method or system used
d. Materials: the needed materials.
e. Machines: required machines.
f. Markets: markets, to sell the results of production.

Strategic Alliance

Cooperation network is closely related to the strategic alliance. According to (Suharto, 2006) is a strategic alliance "an agreement between two or more individuals or entities Stating that the Involved parties will act in a certain way in order to Achieve a common goal". So strategic alliances can be formed from two or more individuals or entities that possess aligned objectives. Thus, the strategic alliance needs members who complement each other, so that the desired goal is achieved. (Hestiningsih 2010) General Characteristics of the Strategic Alliance are:

a. The partners expect the concrete benefits (added value) for those of this cooperation.
b. The partners focused on a variety of their strength in this cooperation. Asanticipate that value-added can only be achieved through this strategic alliance
c. The partners bring a variety of strengths, especially but not its businessesoverall (net partially)
d. The partners in the alliance maintain their autonomous functions
e. New partnerships and organizational structures emerge from this cooperation

Cluster

Cluster is essentially an extension of the strategic alliance. Where more firms in an industry. Thus, the cluster is the incorporation of some alliance of several companies in a region adjacent. The notion cluster, According to Porter (2000) "A cluster is a group of companies sharing local resources, using Similar technologies, and forming linkages and alliances." Understanding cluster can also be viewed from different wider perspectives, in view of business strategy cluster is the extensive area surrounding the industrial linkage.

According to (Hestiningsih, 2010) there are three typologies of clusters which are:
1. Bottom-upTypology: cluster formation is on the basis on local companies. The role of members aligned. Oriented to the pure business
2. Top-downTypology: The Role of Political is very strong. Centralized. Depending on political funding.
3. Core and Bars / SatelliteTypology: Initiated large companies that want to establish cooperation with small companies. Spearheading the clusters are in great company.

METHOD

This study used a qualitative method that aims to examine the phenomenon referred to previously in depth. Researchers act as the main instrument at the same time collecting the data. The types and sources of data are obtained from the primary data. Stages of research conducted comprising the step of pre-course, phase Field Work, Data Analysis Phase (Moleong, 2013). Data analysis was performed through the steps of data reduction, display data, and verification. Validity and authenticity of data tested on a test of credibility, transferability, and dependability.

RESULTS AND DISCUSSION

Batik Pandanmulyo hasestablished since 2008 throughMrs.SitiAslamiah initiative. Mrs.Sitiherself is an ordinary citizen who works as civil servant. The initiative arose because PKK DasaWisma community in the area wanted to supplement the family income to meet their needs. At that time, there were only a savings and credit activities of little help families make ends meet them. Seeing these conditions, MrsSiti started her business with training and inviting a batik tutor from Solo. From the results of the training, it was decided that the motif is “ijoroyo-royo”which has rural landscapes. In addition, there are three other motifs such as mask, pandansrimukti, and sugar cane motif. In terms of marketing, during this batik Pandanmulyo, there is no trouble for orders always come mainly from the agencies, both for uniforms or for souvenirs. Batik production itself is nothing written or printed. And most orders requested batik. Because the number of workers are not comparable with the order, it was decided not doing marketing through Social Media.

Factors Affecting the Development of Batik Tajinan

Supporting Factor

As mentioned bySoekarno (1986: 46), the industry's success can be achieved if the industry is able to optimally manage all the resources they have. These sources include:
1) Man: human labor.

Batik Industry owned by Mrs.Siti has 10 permanent employees and 20 freelancers so that if the order is received, the employeesof Mrs.Sitiare 30 people. Batik designs drawn and designed by Mrs. Siti-in-law and one permanent employee. While the waxing process and staining are done by other employees. Workforce owned by Mrs.Siti labor is not arbitrary, the workforce has attended training for agencies and is held on the invitation and Mrs. Siti own upbringing. Results of the fabric also looks good for a neat picture and color evenly.
2) Money: needed money

Venture capital which has been used is purely of private capital, and does not come from bank loans. Even, if no other funds are used, it is a government grant. The reason the owner of private funds is because the owners do not want being bothered with responsibility installments.
3) Methods: method or system used

So far, the business owners have to understand exactly how or immune system and bring in more income. The system is, if orders are being widely and employees of Mrs.Siti in Tajinanis not able to work, so most orders are delegated to craftsmen in Solo or Yogyakarta whohave long worked with Mrs. Siti. Solo or Yogyakarta are choosen because the two areas have enough craftsmen known by Mrs. Siti and skilled in doing batik. Skilled in this case means neat and quick in drawing. The amount of charge to send and bring back ordered items that is still smaller than the processing time gains and advantages obtained funds. Moreover, in terms of coloring is also implementing a similar system. Mrs. Sitiwould send that have not been dyed batik Madura to the area and sends back a finished dyed batik. The reason for choosing Madura because the area has a hot weather and very fit, very well for dyeing batik. Staining batik become better and faster completion when it is done in Madura.

4) Materials: needed materials

The materials used for this directly brought from Solo. That is because the quality of materials originating Solo is better than the other place. These materials include cloth, wax, and textile dyes.

5) Machines: required machines

The production equipment is used for this using traditional tools. It was chosen because the results of batik nicer and more in demand by the market. Although it is possible also to produce batik business owners who use assistive devices 'cap'. Due to the high cost of tools 'cap' of this, business owners in order to obtain many motives, sometimes she exchanged cap with craftsmen in Solo.

6) Markets: markets, to sell the results of production.

Business owners have no trouble getting the market because it has been getting regular customers are from agencies and other agencies are often ordered to Mrs. Siti. In addition, marketing is also helped by an invitation from the department when there are exhibitions both regional and national levels. With the marketing system so any business owner admits sometimes still too much with the existing order. Because it's business owners are reluctant to heavily promoting through social media. Although it acknowledged the child and daughter sometimes helps marketing through social media, but the promotion through social media is not the main focus.

The sixth source has been fully utilized by Mrs. Siti so their batik business can survive and even grow. In addition to the six sources above, there is one more source who was instrumental in the development of batik Tajinan, namely the Government. The government has sought through funding, the provision of the means of production, entrepreneurship training, to join the initiative to invite regional and national exhibitions.

Another source who was instrumental in the development of batik Tajinanis Mrs. Sitiherself as the business owner. Other jobof Mrs. Siti is as a civil servant, Mrs. Siti greatly assists in building the business. In addition, Human Resources owned by Mrs. Siti is very good, business skills, willingness to learn, and the ability to absorb information better, makes Mrs. Sitiis the only single formidable fighter in Batik industryin Tajinan.

Obstacles

Internal barriers to the development of batik pandanarum itself emerged from the public and business owners. Most of the population PandanmulyoTajinan dependent on agricultural produce both male and female. While young people Pandanmulyo choose to work outside the district hoping to improve the welfare of their families. This makes the development of batik Pandanmulyoin Tajinandistrict districts looks stagnant.

Whereas if the commercial potential that exists, batik Pandanmulyo can become a promising industry in the village Pandanmulyo. Regrettably, however, the mindset of people who make batik as a side income makes them optimal in producing batik. The mindset was

formed because of the understanding that the velocity of money in the batik industry is considered old and did not immediately make a profit, so they pick on other business activities considered too fast gives them an advantage.

The resistance of the owner of their own business is because business owners still civil servants, because the development cannot be done optimally. With the finesse owned business today, Mrs. Siti actually be exporting batik result, but because there are other jobs that are the responsibility of Mrs.Siti, thus, she cannot be focused on the development of batik Pandanmulyo.

External barriers arise from the access to the manufacture and outlets Pandanmulyo own batik difficult. There is no direct public transport to reach the place in question. Road conditions there are some potholes and macadam increasingly difficult for newcomers to reach or find batik Pandanmulyo. Because it is no wonder if batik Pandanmulyo known for the exhibition, in other words batik Pandanmulyo brought "out" instead of consumers who "come".

Other external obstacles is the carrying capacity of the government. Because the government does not only take care of batik business Tajinan course, the government's attention was divided, so that the efforts made so far limited to the provision of support equipment, capital, and training. It is important to think of another strategic step in order to develop the business Batik in Tajinan optimally.

The Government Efforts in Developing Batik TajinanIndustry

In planning the construction of Malang Regency is reflected in Malang regency RPJMD 2010-2015, TajinanDistrict includes in the development area I circumference of Malang that during this and predicted they could achieve the greatest economic growth compared to the five other development areas in the district of Malang. Field of industry in Malang district itself can be said to be growing rapidly along with the ease of accessibility.

Many ease of accessibility that has been given by the government of Malang in this case to support the development of Batik Tajinan. One of these is the ease in terms of financing or funding. In RPJMD Malang 2010-2015 mentioned that "Spending Policy Directions 2011-2015 focused on shopping year to finance the obligatory functions and affairs of selection and distribution of stimulants or motivation for the development of SMEs, the reduction of unemployment and poverty and assistance to civil society organizations that synergies with development programs that have a significant impact on the achievement vision-mission and regional development policy. It is no less important in the region meet its financing needs is to do a partnership with government and non-government agencies in the form of synergy program including de-concentration program funds and grants / aid directly to the people. "

In other words, the statement indicates that the government since the beginning or in the planning step was prepared to provide significant funding for the development of SMEs. In the implementation of the discussion this time, it is manifested through the Department of Cooperatives and SMEs which provide capital assistance to Batik PandanmulyoTajinan in 2011 as well as the initiative of the authorities to apply batik PandanmulyoTajinan for a grant clearance Malang and from Bank Indonesia in 2014. Onthat occasion, Bank Indonesia looking batik industry which could potentially be developed for venture capital assistance, cooperative department initiated the proposal's batik industry Mrs. Sitito be supported in the form of venture capital because at that time, the business showed the most potential for development.

Ease of accessibility is the access to reach the market next. Both agencies Cooperatives and SMEs nor the Department of Industry and trade as well as other agencies, are equally often invite Mrs. Siti as a business owner Batik Pandanmulyo to participate in exhibitions both at the regional, provincial, and national levels. The purpose of this participation is that batik is

increasingly recognized by the public in the hope more people will know of the existence of batik, the greater the opportunity to gain more market share.

Ease of accessibility in terms of training can also be seen from seringnnya department main department of cooperatives and SMEs and the Department of Industry and Commerce, invites Mrs. Sitifor training batik, informed the batik training and other training related to entrepreneurship, and does not limit Mrs. Sitifor training batik in other places.

In addition, the ease of access to the equipment were also obtained by this industry. Dinkop and Disperindag had served a useful tool for starting and developing businesses batik. The equipment provided in the form of grants, not loans and a batik tool manual.

Ease of accessibility is further of ease of administering licensing patents. In 2015, in collaboration with the Industry and Trade Ministry of Commerce, Mrs. Sitigot a chance to take care of licensing patents and brand design for free. Fourth-owned design and brand "Siasla" is in the process of patenting.

Basically, easiness is not intended only for personal Mrs. Sitias a business owner, but is intended also for the surrounding community. With these conveniences, batik TajinanPandanmulyo is now increasingly recognized by society, production was increased in line with demand. In addition business owners increasingly skilled in managing their business and provide prosperity for the surrounding community impact, minimal to their workers.

Strategic Steps which should be done by the Government

Seeing the condition of Batik Tajinan current developments, Mrs. Siti has made strategic alliances where Mrs. Sitiwith craftsmen from Solo, Yogyakarta and Madura have collaborated to achieve a better profit. Each craftsman involved contribute according to their ability or their respective expertise. The strategic alliance has been done is a good start to achieve production efficiency. It is regrettable that during this area involved a strategic alliance with Mrs. Siti is not an area of Malang anyway. Going forward, the government needs to prepare and develop the areas around Tajinan with characteristics that are almost the same as Solo, Yogyakarta and Madura, so that strategic alliances can be formed between regions in Malang so that public welfare in Malang was more evenly distributed.

If it is possible, Cluster Formation will give better results. As described in the previous chapter that the cluster is an extension of strategic alliance where more firms in an industry. The emphasis on the cluster is in geographical terms. Cluster has the tendency of some industries are clustered in a region. With the condition of Mrs. Siti who is currently single fighter does not give a better impact if formed clusters. Benefits of cluster formation in the Batik industry such as:

Better preparing batik industry to face global competition in general, the main rival traditional fabric from other countries and in particular the National competition. Clusters can improve competitiveness, new technologies, innovation, increased productivity is low, as well as increased market access and access to capital. Provision of cluster services will also facilitate members in their business development. Their cost optimization in the form of distribution of resources and bargaining power collectively. And more importantly, the cluster can improve production efficiency thereby increasing the profit received craftsmen impact on improving welfare.

CONCLUSION AND RECOMMENDATION

Supporting factors affecting the development of industry in PandanarumTajinan is a factor of labor, capital, production system used, the materials and tools necessary production,

markets, governments, and businesses themselves. Factors inhibiting the development of batik in PandanmulyoTajinan is a factor mindset of society, priority business owners, access to business, government and carrying capacity less than the maximum.

The Government is already taking part in the development of batik Pandanmulyo including cooperative department, department of trade and industry. The role of government in supporting industries batik PandanmulyoTajinan include providing equipment assistance, venture capital, training, and marketing.

The strategic measures that the government should do are in the form strategic alliances around Tajinan and create a cluster in the village or PandanmulyoTajinan.

What has been done by the government are good in supporting the development of batik PandanmulyoTajinan. Some things that can be recommended are:

1. In connection with the lack of public interest in the batik industry because of the public's view batik less profitable businesses, governments can motivate people by giving training, may be through a successful resource persons in their field.
2. In connection with the difficult access to the site so it is less known by prospective customers, can be overcome by cooperation with travel agencies or by. So, travel or service that had a visit can provide travel packages in which Malang districts are visited for its batik business locations in PandanmulyoTajinan districts. In addition, to providing the advantages they can bring a souvenir in the form of batik cloth, with a direct view the location in question may arouse consumers who buy to instinctively do the 'promotion'.
3. With regard to exports, the government can push Mrs. Siti to export. If time and effort are the constraints, Mrs. Siti can join Druju in exporting activities.
4. To form a cluster, it takes quite a long preparation and cost, therefore, before the cluster is formed then it should start with strategic alliances in advance. In connection with the formation of a strategic alliance, the government began surveying the area around Tajinan which is an area of hot climates and people can be nurtured to make batik. The government should evaluate the development assistance which has been given, he saw the potential of the new people are qualified to perform activities such as Bu Siti. These new people will be given assistance to develop their business so that the impact on the surrounding communities are also more.

REFERENCES

Setyawan, P. 2007. Menumbuhkan kebiasaan menyusun laporan keuangan pada usaha kecil dan menengah. *Jurnal bisnis dan usahawan*, II (7): 181-184

Masiswo. 2011. Makna Batik Motif Sidomukti Pada Upacara Ritual Lurub Layon. *Majalah Ilmiah Dinamika Kerajinan Batik* , 28 (1). (online), (http://ejournal.kemenperin.go.id/dkb/article/view/1012/pdf_22 Vol 28, No 1 (2011)), diakses 30 Agustus 2016

Detiknews, 2 oktober 2009. *Batik Ditetapkan UNESCO Sebagai Warisan Budaya Indonesia, Pakai Yuk!,* Hlm.7

Moleong, L. 2013. *Metodelogi Penelitian Kualitatif*. Bandung: Rosdakarya

Kamus Besar Bahasa Indonesia tentang arti kata Pengembangan. (online), (http://kbbi.web.id/kembang), diakses 30 Agustus 2016

Pamuji, S. 1985. *Pembinaan arti dan metodenya Tinjauan dari Aspek Administrasi Pemerintahan.* Jakarta: Bina Aksara

Soekarno.1986. *Dasar-Dasar Manajemen*, Jakarta: C.V Miswar

Suharto, E. 2013. Aliansi Strategis Antar Sektor: Isyu Kritis Dalam Pemberdayaan Keluarga, (online), (http://www.policy.hu/suharto/modul_a/makindo_02.htm), diakses 29 Agustus 2016

Hestiningsih, S. 2010. *Landasan Teori Klaster dan Managemen Klaster* (Disarikan dari Modul Managemen Klaster oleh Lucas Von Zallinger), (online), (http://klaster-umkm.blogspot.co.id/2010/09/landasan-teori-klaster-dan-managemen.html), diakses Tanggal 28 Agustus 2016

The Economic Competitiveness Group. 2012. What Is a Cluster?. (online), (http://www.ecgroup.com/methodology/cluster.htm), diakses tanggal 25 Agustus 2016.

Globalization VS Localization of English: Should EFL Learners Lose their Identity?

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Abstract: Globalization means the spread of English which is used as a paramount consideration in communicating around the world. EFL teachers in Indonesia intently encourage their students to have good English as a survival tool in this modern era by teaching them standard English. In the same time, localization of English appeared in the process of acquiring or learning English when the students have their own way in using English by mixing it with their own culture. This issue is crucial to be discussed since Indonesian EFL learners spread in various cultures, which affect their identity in using foreign language. This paper aims to deliver some ways in bridging between globalization and localization of English by considering the following aspects: (1) deciding students' purpose in learning English, (2) delineating cultural aspects to be included in teaching process, (3) incorporating cultural aspects in teaching material, (4) implementing, and (5) evaluating the material. This framework can be consideration for teachers in designing the teaching material to face globalization and localization issue in EFL teaching.

Keywords : globalization, localization, identity

It is a cliche when we say that English is an international language. It has been an inseparable topic in every discussion related to the use of English as language of international communication. The increasing number of people who use English around the world make it became an important factor for students' survival in the future. The importance of English has inceased since it has a strategic role in expressing science and technology because of its complete terms to explain every matter related to modern concept in both areas (Gunarwan, 2000). It brings English as a language that students must learn not only to communicate globally but also to gain knowledge from around the world.

Because of its strength in many sides, we cannot ignore the globalization of English. It has gotten special status that is recognized by many countries in the world (Mckay, 2009). English is no longer a language that is only used by people in western but also in eastern and many parts around the globe. Special status of English is strengthened by the use of this language in the website, caution, news, or advertisement. From the view of field work, English also take an important role as one of indicator that an employee has a good competence in communicating and making relation. For those reasons, English has been required as a subject in every level of education in many countries.

Indonesia also requires English to be learned by students from secondary education. English taught to the students in Indonesia is English that encourages them to be able using English as near as native speakers. Teacher set many teaching activities to make students having a goof competence in English. The students are assumed can speak English well if they can use it properly to the native English. On the other side, the students themselves have their own way in using English since they do not meet native English every time as situated in western country. Their English tend to be adapted to their needs in communicating with their friends who are non-native speakers (NNS). This adaptation surely involved students' culture as part of their

identity. As the result, the English learned in the country that is not included in western country such Indonesia, is not exactly the same as English used in western country. This phenomenon can be called as localization of English where English has mixed with various culture of local area where it is used.

Localization of English must be a consideration in teaching English because teacher usually tends to teach a standard English which includes western culture without conceiving students' culture as part of their identity. This paper aims to discuss how to bridge the phenomenon of globalization and localization of English in the classroom in order to achieve more useful English for learners.

GLOBALIZATION AND LOCALIZATION

Globalization refers to the phenomenon where almost the whole people in the globe use English for communicating. English has its global status since there are many people around the world use it for speaking in order to convey their intention (Crystal, 2003: 67-69). Historically, The dispersion of English before it united world to communicate in one global language was started by two diasporas (Kachru, 1992) that have distinct historical, sociocultural, ideological, linguistic, and pedagogical contexts. It was began by migration of English-speaking people from Great Britain to Australia, North America, and New Zealand. These native English native speakers have good authority in the countries that influence the use of English as they daily language. The advancement of Great Britain in their industry also encourages people to master its language. These countries, then, known as the countries that use English as their native language. The diffusion of English in many countries also resulted by colonialism and other political and economical factors. England also had many colony countries where the colonial official use English in communicating. For political reason, these countries got their independence by being common wealth countries of England or totally free without being common wealth countries. English is used in these countries as official language, which is used in education, government, and other formal situation while in daily life English is mixed with local language. Because of the power and authority that is possessed by countries where English as their native language such United States of America and United Kingdom, other countries, which has no history of migration of English speaking people or colonialism need to learn English well in order to be able in communicating and getting information.

The three circles proposed by Kachru (1985) might be a good way in interpreting the use of English around the world. These circles consist of inner, outer and expanding circle. Inner circle is the position of countries where English use as native language (ENL) that the speakers are estimated more than 329 million. The circle consists of The Great Britain, America, Australia, and New Zealand. The outer circle consist of they that had been colonized by inner circle countries such Malaysia, Singapore and India which the speakers can be more than 430 million. They use English as their second language (ESL) that is used to deliver information and communicate in formal situation such education and government while other countries that use English as foreign language (EFL) are include in the expanding circle which is estimated consist of more than 750 million speakers. These countries position English as the compulsory subject in every level of education since their needs to be able in joining in international competition as well as economy, politics, or education. The globalization of English appears in these three circles since all of countries are involved in these circles and communicate using English. However, Kachru emphasizes that the circles are only interpretation of English's status in every country and how its function. This circles' concept admitted identity of every nation without assumed to be control by any 'native' group or otherwise.

Uncontrollable spread of English around the globe, make it flexible to be use and adapt by many nations. It brings the emergence various kind of English that has been mixed with the culture of where it is used. This phenomenon, then, we calls as localization of English. The phenomenon is the consequence of English as an international language that has been conventionally accepted as a tool to bridge different language across the globe. Smith (1987) has pointed out three characteristics of an international language. Firstly, in using English, the non inner circle countries are not necessary to apply similar culture like what native speaker possess in order to use language effectively. This character represents the freedom of using language without dependability to learn its culture in order to use it well. Language can be learned as the need of communication by also including the cultural norm as where it is used. Secondly, an international language becomes denationalized that means language is not possessed by only one or group of countries. The world's society is the owner of the language while native speakers cannot judge that the language is theirs and people must place them as the target of learning. Thirdly, English is only a tool of communication that helps people in delivering their ideas and culture. It indicates that local culture that is brought by the language learner or user can be used while they are communicating in English.

The characteristics of an international language proposed by Smith is supported by Crystal (1997) who pointed out that English is no longer possessed by native speakers in the inner circle since they are less than population of speakers in outer and expanding circle. The speakers spread out in both different accents and level of competencies out of inner circle's border. English language has been recognized as a tool for conducting teaching and learning around the world (Flowerdew & Peacock, 2001; Lauder, 2008). That means every research, publication, business and commerce also utilize English to convey its content in order to be used by other people in different countries.

Indonesian government must realize the potential use of English, which has many advantages in wide areas. The areas consist of economic and business, international relation, international travel and safety, education, communication and media. Firstly, in economic and business, USA that has first number in the rank of economy requires every actor of international market to be able in using English especially multinational business, which has international branches. Secondly, international relation requires diplomats to master some different languages for their career but if there is a situation when they do not master a certain language, they are required to use English communicatively because English has been recognized as the lingua franca. The third is international travel and safety. It refers to the use of English as language used for navigation at sea and for air traffic control. Fourthly, in education, English use as formal language to publish an international article, medium of teaching and learning in the classroom and official letter among international institutions of education. The fifth is communication. The information around the globe spread out on the internet consist of almost 80 % in English. In spite of the fact that internet has grown to handle various languages and roman scripts (Hussain et al., 2005), mastering English is still a prominent skills in order to maximize overall use of information on the internet. Lastly, media, which commonly uses English as its language in order to be understood by different people around the globe. These media are various from printed such newspaper until media on electronic such global television and radio broadcasting.

THREAT OR OPPORTUNITY?

The flexibility of English as an international language and its use brings some difference perspectives and attitudes toward its existence in a certain country. In Indonesia, issue of English use also appears as debatable topic that creates two contrary arguments. In one side,

English is seen as the paramount consideration to take a good position in international competition especially in education, economic and technology sides.

Every new knowledge as the result of the research should be written in English before published to a certain journal. This is an important step to ensure that people around the world can understand and comprehend the content of the research. Other example of education's need of English is communication tool needed in an international seminar where the participants come from different countries and native language. In this situation, people will tend to use general language that can help them in sharing ideas each other. In economy side, the situation can be seen when there is a multi-national meeting where the company directors need to make a deal. They are from different countries, which have different language. Here, the existence of English as a global language is needed to bridge their ideas before achieving a certain decision or agreement. Technology also support the needs of English since it can make the user became easier operating it. For instance, there is a kind of super car that will enter Indonesians' market. The process of assembly will do by Indonesian. In this case, the guiding book of the car or the instructor that will train employees must use single language that easy to understand and have been used generally by other countries. If the guiding book or the instructor uses difficult language or uncommon language, the process accepting of technology will be slow. Because of that, English is often used to give guidance in using a certain technology. As explanation above, it emphasizes the needs of students to learn English well. By mastering that language, they will learn other culture and compete in the global market (Harwati,L.N, 2012). Moreover, job opportunities for students will increase significantly in technological and scientific area when they can communicate well in English (Lauder, 2008). In other words, English is unavoidable language that should be learned by the students to face bright future.

In spite of the fact that English is required for students as a modal to compete in globalization era, there is negative perspective related to this point of view. English is assumed can devaluate Indonesian language as the official language in Indonesia (Suyanto as cited in Onishi, 2010, p. 1). The students are predicted will be more interested in learning and mastering English since it is more prestigious than Indonesia that is only usable in Indonesia. Moreover, mastering other foreign language will be considered unnecessary since English can cover almost every communication in life's needThe decrease of students' motivation in learning will be equal to their language quantity. However, the use of English in Indonesia are useful to enrich Indonesians' words that many of them derived from English word.

STATUS OF ENGLISH IN INDONESIA

The status of English consists of English as native language, second language, and foreign language. English status is depended on classification of country that can be divided into inner, outer and expanding circle countries (Kachru, 2005). Based on this definition, Indonesia is included into expanding circle where English is recognized as foreign language, which has been one of the compulsory subject course in almost every level of education in Indonesia. Indonesian government also placed English at the third position after Bahasa Indonesia, the regional vernaculars (Lauder, 2008).

The status of English in Indonesia represents how its role is played. English is used as a tool that can be used to encourage nationalistic and patriotic in the form of acceleration of country's development. Indonesian can use it to convey and accept any information, knowledge or technology. This phenomenon is similar as Lauder's point of view (2008) that states the essentiality of English has its restriction for only the merits in accessing information that can support development such as economic growth.

As the response of the Indonesians' need of English in the future, the government has announced and amended policy related to the recognition of English as foreign language regarding to its advantage to accelerate development. It represents the priority of learning English although it does not use in daily communication as the first language (Simatupang, 1999: 64). The government policy related to foreign language until recognition of English as prior foreign language was started Guidelines of the State Policy (GBHN) of 1983 and 1988, which is said that non-native language policy was not integrated but in the GBHN of 1993, the guideline on non-native languages, particularly English language, was clearly specified. The revising of some points in Government Guideline No. 55, 56 and 57/1988 was done in Government Guideline No. 28, 29/1990. The guideline approved the use of English language in schools. Furthermore, Government Guideline of No 57/1957/1988 also supported the use of English Language as a foreign language and as a means of communication and interaction in the university. Later on, it was incorporated into Government Guideline No 60/1999 on the use of English language in all higher education.

The policy of the Indonesian government has given a clear insight related to the importance of English for students in Indonesia. It also implied that kind of English used in Indonesia is academic English, which is useful in the presentation in international seminar, publication of academic articles, and acceptance of new knowledge form overseas. This English is also a minimal standard of English required for students that color the content of English taught in almost every level in Indonesia.

STUDENTS' IDENTITY

Although government's policy has implied that English standard used for teaching and learning in Indonesia is an academic English, Indonesia still seems imitate to either British or American English. It is reasonable since the non-native speakers' country dependent on the standards set by native speakers from the inner circle (Jenkins, 2003: 16) As country in expanding circle, Indonesia cannot avoid its dependability to inner country where native speakers live especially Britain and America. However, Smith and Kachru (in Alatis, 2005, p. 32) have a point of view against Jenkin's that neither British nor American English can be used as a standard. It is caused since English becoming an international language, it has no longer possessed by native-speakers in inner circle country. The standard required by The Standards for Foreign Language Learning (NSFLEP 1999) for teaching English to foreign students must integrate the philosophical perspectives, the behavioral practices, and the products—both tangible and intangible—of a society.

The requirements of NSFLEP are also well known as the 3P model of culture. Philosophical perspectivesc consist of what members of a culture think, feel, and value. Behavioral Practices includes how members communicate and interact with one another. Products consist of technology, music, art, food, literature, and everything that members of a group create, share, and transmit to the next generation. These three aspects indirectly explicate the importance of culture to be included in the English teaching and learning in Indonesia as students' identity. Since learning language means learning the culture, teachers must be aware of culture will be included in the process of teaching and learning. It is very often western culture is emphasized in the language teaching while it is not appropriate to the students' identity. Even worse, students get more difficulty to both learning language and new culture brought by the language.

Integrating culture has became a central topic in considering form of ELT since the government needs society to take the advantage of English to accelerate development, but still in their own identity. There is a demand to filter everything that is unrelated to country's needs

even endanger the existence of the country. Teaching and learning process is no longer teacher centre. It has broaden to be students centre. To achieve this purpose, teacher must be aware of concept "who you are" (Joseph, 2006, p.486, Bloomaert, 2005, p.203) that in this context refers to the students. Students have different identities depend on their origin, background knowledge and environment where the students grow. Moran (2001) explained that identity consist of both explicit and tacit that deal with sense of self, values, beliefs and practices (p.99). it is also associated with the membership of other group that make identity can be widely separated as group identities, national identities, gender identities, religious identities, social class identities etc (Joseph, 2006; Jones, 2000; Block, 2006). By observing the use of language, we can see clearly these identities in their effort to position themselves in their conversation toward different situations in the form of linguistics practice (i.e. Page & Tabouret-Keller,1985, cited in Risager, 2006). Therefore, Norton (2006) said that identity has opened up new research directions such as identity and investment in the target language, identity and imagined communities (learner‟s exposure in the target language), identity categories (sex, gender, race) and educational changes, identity and literacy (learner‟s ability to read and write).

In foreign language context, students' identity may in some extent different when language learner uses his/her own language. Risager (2006) says that to participate in linguistic practice, a foreign-language speaker normally involves completely different identity dimensions from when one is speaking one's first language‟ (p.124) which is called third place identity (Kramsch, 1993), the state where one is in between his own language and target language. In intercultural language classroom, this issue may be addressed appropriately by giving questionnaire on „intercultural sensitivity‟. It is an advantage in that teachers can spot where students can put their identity in. This result may implicate to the choice of materials presented for classroom teaching (Bernett & Allen, 2003).

Moran (2001) outlines four stages of intercultural learning in which students can learn in the classroom. These are; concrete experience, reflective observation, abstract conceptualisation, active experimentation (p.18). Similar to these notions, Commonwealth of Australia (2004) sets five principle of intercultural pedagogy; active construction; making connections; social interaction, reflection and responsibility. These aspects explore pedagogical notions in which students and teachers are „engaged in creative process of learning‟ (Crozet & Liddicoat, 1999, Phillips, 2001). For example teachers relate the concept of wedding in students‟ culture with that of in target culture. For further understanding students may interact with the native speakers of target language.

BRIDGING GLOBALIZATION AND LOCALIZATION OF ENGLISH IN ELT

The international language status having by English has made it is used globally as number one language that must be mastered if someone need to compete across countries. In its spreading around the globe, it has been mixed with the local culture that emerges localization of English. There is new English that is used by the non-native speakers because they talk in English by their own way, which may be not acceptable to native speakers from their pragmatic and speech act point of view. However, it is not a bad thing since English has out of its native-like boundary that make it more flexible to be modified for different user.

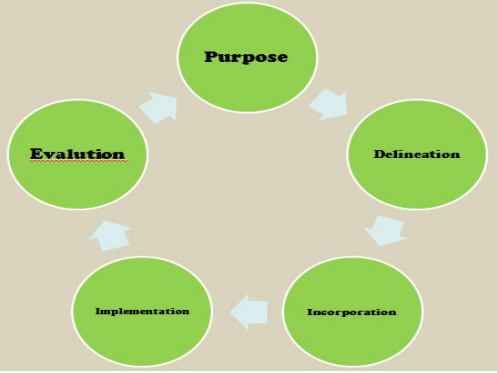
The users of English grow every day since countries encourage its society to learn English. The purpose of using this language is also various since it possess a strategic position in many areas. To gain the purposes, English is taught in almost every level of education in foreign countries included Indonesia and it also become a requirement to get a job position. By these developments, the actors of ELT have been divided into some different parts of practices such as linguists, pedagogical practitioners, education experts, and language policy makers.

As foreign country, Indonesia already has language policy contended English's status and place it in the third of three main categories of language in Indonesia. The paramount thing that must be created by the government today is a clear and objective curriculum for language education. It is like Daloğlu (1996) who pointed out that kind of curriculum is needed to realize effective delivery of high quality language education. The governemnet must be able to develop a curriculum that clearly spells out how knowledge can be acquired constitutes an important phase towards realizing good quality language dissemination. Moreover, systematic assessment regarding to the implementation of the curriculum must be set up to ensure every school has the same degree in implementing it.

Language curriculum is a big plan to facilitate students to learn foreign language effectively. However, it cannot be success if teachers are failed in understanding and applying it in the classroom. A good foreign language teaching is the way students are taught how to use the language without losing their identity. Culture, as the representation of students' identity must be well incorporated in the classroom. It can help students to learn and apply it in daily life rather than act and imitate native speakers although it is not easy to reduce the effect of native culture in the language since language and culture is inseparable. Moreover, Risager (2005) pointed out that second language can be used to teach culture to the learner, and Kramsch (1997) stated that culture would always exist wherever language is used and learned.

In spite of the fact that teachers must realize students' identity, it does not mean that they must separate between natives' culture and students' culture in two different things. Teachers must respond this needs wisely by introducing language target culture by class activities and gives clear explanation of distinction between what students' and natives' culture have. It is injudicious when students only know their own culture without realizing others. They will grow to be conservative people who are not easy to accept a new change or point of view out of their culture boundaries. The students will recognize their own culture as their identity proudly when they know their significance to others (Hall, 1996). Based on this idea, teachers are encouraged to teach students by delivering local culture material through EFL in class. It can create the situation where the students interact and negotiate with both their culture and foreign culture. Learning English by using the material contended local culture, not only increase students' ability in mastering English's skill but also their capability in expressing their own culture by using English (Prastiwi,2013). In other words, there is no other better ways in bridging globalization and localization phenomenon in country where English as foreign language than collaborating local culture with the use of English to communicate it.

The Five Steps



As we have discussed above, the best way to build a good connection between globalization and localization is by delivering local culture using English. Another problem will

appear when teacher needs to deliver their material to students. It should be about which culture that is included in the teaching process. Based on review on some articles and researches, this paper try to suggest some steps for teacher in creating material for students.

The first thing should teacher do is deciding the purpose of the teaching and learning process. Melchers and Shaw (2003:191) proposed three guiding questions in deciding the purpose of English language teaching. The three questions are: (1) what exposure do we give the learners, (2) what production model should we choose, and (3) what production target should we aim for. The first question related to what rather influence that will we bring in teaching students whether British or American using different kind of media. Production model refers to the choice of spoken or written material that will be used in the ELT. Production target will be meant as the aims of students in learning language. These three aspects will be various if we compare from one place to others. In my opinion, the third aspect is the most important thing to be considered by the teacher since teaching and learning process have grown into students-center. By knowing the purpose of the students in learning language, teacher can decide what exposure and production model that will be used in the teaching learning process. For instance, the exposure and production model for between students who need to be able in mastering grammar will be different to they who need to be able speak English well. In mastering grammar, students need to have a standard grammar used and they need written production model while in mastering speaking, students need to have British or American standard in pronouncing English and they need spoken model. However, since Indonesia is included in the expanding circle, where English learned as foreign language, the learners will need to be able in understanding as many accents and varieties as possible (Mukminatien, 2012). In other words, the three consideration above may be effective for private school, course or education institution whose specialization in ELT. On another hand, for public school, teachers must creatively select material and do ELT for the purpose of intercultural awareness. It will be useful since students have various cultures and backgrounds in the classroom.

Secondly, the teachers must delineate involvement of cultural aspects. Elements of culture refer to things like the beliefs, values, customs, products, and the communication styles of a given culture or society (Cohen et al. 2003). It will be a complicated thing if the teachers included all of these element without knowing consideration in incorporating them into ELT. Teachers must be good in selecting these elements in order to fulfill the needs of students. There are three kinds of culture to lead teachers in creating a good ELT. They are source culture, target culture, and international target culture (Cortazzi & Jin in McKay, 2002). Source culture refers to the culture that comes from the society where the students live. Target culture means the culture that target language brings, which should be selected by teachers before it is delivered to the students because not all of target cultures are appropriate and useful for students. International culture can be meant as the values that are generally accepted by all of country. This kind of culture is needed to increase intercultural awareness among the students.

The elements mentioned by Cohen at the beginning are included in the source culture. Teacher can identify these elements from the students by using “iceberg” theory proposed by Hall (1976) who divides culture into three parts that is surface culture, sub-surface culture and deep culture. Surface culture includes food, national costumes, traditional music and dance, literature, and specific holidays. In the sub-surface culture section, students could list notions of courtesy, body language, gestures, touching, eye contact, personal space, facial expressions, conversational patterns, and the concept of time. The sub-surface culture relate to the students’ behavior, which consist of unspoken rule that is used in the conversation. Teachers can deliver a clear distinction between students’ culture and its unique from other culture especially inner circle countries in the form of teaching material. The deep culture is the most difficult part to be identified by teacher since it has been seen as a normal thing that can only differentiate by

compare it to other cultures. After the teachers get all of the information related to source culture, teachers can combine and distinct it with the target culture and international culture, particularly contrastive culture among these three cultures.

The third stage is incorporation cultural aspects in ELT material. After selecting element of culture, teachers can insert cultural aspects in the teaching material that generally consist of; religious ceremonies, folktales, courtesy, and politeness (Cahyono, 2013). For instance, teacher can provide material related to the Muslim's annually celebration, "lebaran" for the students. By giving this material, teacher can explain international culture such as how is "lebaran" celebrated in other muslim's countries such as Saudi Arabia, Turkic, or Pakistan. In the distinction and comparison with target culture, teacher can provide and explanation related to similar "lebaran" in inner circle countries since most of them are not muslim.

The fourth stage is Implementation. In this stage, the teachers apply the material that has been created before. Teachers must ensure that every student can clearly get the ideas of intercultural awareness that is the purpose of the material made. The last is evaluation stage. While the teacher implementing the material and leading activities in the classroom, they observe the process of the teaching learning process, whether the material and activities have been successful enough to build intercultural awareness in their mind. Teachers also need to evaluate the recent challenge related to language development for their students in order to increase their ability to compete in global field.

CONCLUSION

The most important thing to be considered in these five steps is how to create material and activities that encourage students to be aware of their own identity through learning English. From the assessment side, teachers need to move from a kind of assessment where students must be "native-like" to "intelligibility" (Mukminatien, 2012). It is not necessary the students must exactly imitate the native speakers in inner circle because the paramount English competence needed for them is ability to communicate in English, not to copy the native speakers of English. English in inner circle country should take a role as a basic of well English that keeps the language not too far from its origin. On the other side, students in foreign countries must have freedom of expressing themselves by using English in their own way. Teachers must realize this need because incorporation of students' identity in English can enrich variety of English itself. At the same time, students will not only master in using English, but also be proud of their own identity.

REFERENCES

Alatis, J. E. 2005. Kachru's circles and the growth of professionalism in TESOL', *English Today*, vol. 21, April, pp. 25-34.

Bernett, M. J. & Allen, W. 2003. *De*veloping intercultural competence in the language classroom. In D. L. Lange & R. M. Paige. *Culture as the core: Perspective on culture in second language learning* (p.237-270). Greenwich, Conn: Information Age Pub.

Cahyono, B.Y. 2013. *Teaching English by Using Culture Contents*. Malang: State University of Malang Press.

Cohen, A. D., R. M. Paige, B. Kappler, M. Dem-messie, S. J. Weaver, J. C. Chi, and J. P. Lasse-gard. 2003. *Maximizing study abroad: A language instructor's guide to strategies for language and culture learning and use*. Minneapolis: Center for Advanced Research in Language Acquisition, University of Minnesota.

Crozet, C. & Liddicoat, A. 1999. The Challenge of intercultural language teaching: Engaging with culture in the classroom. In J. Lo Bianco, Liddicoat, A., Crozet, C. (Eds). *Striving for the third place-intercultural competence through language education* (p.113-125) Melbourne: Language Australia.

Crystal, D. 2003. English as a Global Language, (2nd Ed.). Cambridge: Cambridge University Press.

Flowerdew, J., & Peacock, M. (Eds.). 2001. *Research Perspectives on English for Academic Purposes*. Cambridge: CUP.

Frank, J. 2013. *Raising Cultural Awareness in the English Language Classroom*. English teaching forum. No.4

Gunarwan, A. 2000. Globalisation and the Teaching of English in Indonesia. In Ward, C. & Ho, W.K. 2000 (Eds). *Language in the Global Context: Implications for the Language Classroom. Anthology Series*. Singapore: SEAMEO Regional Language Centre.

Harwati, L.N. 2012. *World Englishes: Threat or Opportunity for Indonesians*? .Sino-US English Teaching,, Vol. 9, No. 1, 872-877

Hussain, S., Durrani, N., and Gul, S. 2005. *PAN (Pan Asia Networking) Localization: Survey of Language Computing in Asia 2005*. Lahore, Pakistan and Ottawa, Canada: Center for Research in Urdu Language Processing, National University of Computer and Emerging Sciences, and International Development and Research (IDRC).

Jenkins, J. 2003. *World Englishes: A Resource Book for Students. Routledge English Language Introductions Series*. London and New York: Routledge.

Josef, J.E. 2006. Identity and language. In K. Brown (Ed). *Encyclopedia of language and Linguistics* (p.486-492). New York: Elsevier

Kachru. B.B.Y., Kachru. & Nelson, C. 2006. *The Handbook of World Englishes*, Oxford: Blackwell,

Kachru, B.B. 1985. *Standards, codification and sociolinguistic realism: the English language in the outer circle*. Cambridge: Cambridge University Press.

Kachru, B.B. 1992. *The Other Tongue: English Across Cultures, (2nd ed)*.. Urbana, IL. University of Illinois Press.

Kramsch, C. 2006. The Multilingual Subject. *International Journal of Applied Linguistics* (vol.16). http://onlinelibrary.wiley.com/doi/10.1111/j.14734192.2006.00109.x

Lauder, A. 2008. The status and function of English in Indonesia: a review of key factors. *Makara Social Humaniora*. Vol. 12 (1), 9-20

Lauder, A. 2008. *The status and function of English in Indonesia: A review of key factors*. MAKARA, SOCIAL

Melchers, G. & Shaw, P. 2003. *World Englishes*. New York: Oxford University Press.

McKay, S. 2002. *Teaching English as an International Language: Rethinking Goals and Approaches*. Oxford: Oxford University Press.

McKay, S.L. 2009. *Teaching English as an International Language. Rethinking Goals and Approaches*. Oxford: Oxford University Press.

McArthur, T. 1998. *The English languages*. Cambridge, UK; New York: Cambridge University Press.

Mukminatien, N. 2012. Accommodating World Englishes. *TEFLIN Journal*, Vol. 23, No.2,

Onishi, N. 2010. *As English spreads, Indonesians fear for their language*. The New York Times. Retrieved from http://www.nytimes.com/2016/12/26/world/asia/26indo.html

Phillips, E. 2001. IC? I see!: Developing learner‟s intercultural competence. *LOTE CED Communique*, 3. Available online at: www.sedl.org.loteced. Accessed on December 20, 2016

Prastiwi, Y. 2013. Transmitting Local Cultural Knowledge through English as Foreign Language (EFL) Learning as a Means of Fostering "Unity in Diversity". *Academic Journal of Interdisciplinary Studies*. Vol 2 No 3 MCSER Publishing, Rome

Risager, K. 2006. Language and culture in a global perspective. In K. Risager. *Language and culture: Global flows and local complexity* (p.1-18). Clevedon: Multilingual Matters.

The Effect of Rupiah/US$ Exchange Rate, Inflation and SBI Interest Rate on Composite Stock Price Index (CSPI) in Indonesia Stock Exchange

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Abstract: The capital market is one of the tools for economic growth for a country because the stock market is a means of capital formation and accumulation of long-term funds that are directed to increase community participation in the mobilization of funds to support national development financial. The sample used in this research are the data of Rupiah/US$ exchange rate, inflation, SBI interest rates and the Composite Stock Price Index (CSPI) in 2009 – 2013. Types of data used are monthly secondary quantitative data in 2009 – 2013 periods that were obtained from the official website of Bank Indonesia, SEKI and Indonesia Stock Exchange (IDX). The data analysis technique used is multiple linear regressions. The results of this research are: (1) there is a negative and significant effect of Rupiah/US$ exchange rate and SBI interest rate on Composite Stock Price Index (CSPI), while there is positive and significant effect of inflation on Composite Stock Price Index(CSPI), (2) there is a simultaneous effect of Rupiah/US$ exchange rate, inflation and interest SBI rate on Composite Stock Price Index (CSPI), (3) SBI interest rate is the dominant factors which affect the Composite stock price index (CSPI).

Keywords: rupiah/US$ exchange rate, inflation, SBI interest rate, composite stock price index (CSPI)

Capital Market is known as one of the tools for economic growth in a country due to the fact that capital market is a means of capital formation and accumulation of long-term funds and are directed to increase community's participation in the mobilization of funds in order to support national development funds. Samson (2006: 43) stated that the capital market is a meeting place or means between the demand and supply for long-term financial instruments, generally more than one year. Furthermore, the capital market is also a representation to assess the condition of the company in a country, because almost all industries in a country are represented by the capital markets. Capital markets have increased or decreased visible from the rise and fall of stock prices listed are reflected through a movement of the index.

The growth of investment in a country will be affected by the country's economic growth. The better the economy of a country level, the better the level of affluence of the population. A higher level of prosperity which is generally characterized by an increase in income levels. With the increase in the income, the more people who have excess funds, these surplus funds may be used to be stored in the form of savings or invested in securities that has been marketed in the capital market.

Fundamentally, the price of a type of stock is affected by the macro and micro economic factors (Samson, 2006). Micro factors are factors that originate from within the company, such as earnings per share, operating income per share, and others - others. Macro factors are factors that come from outside the company but directly affects the performance of the stock, as the factors that come from abroad (external) and a factor derived from the domestic (internal). Factors that comes from outside the country can come from other countries foreign stock indices (Dow Jones, Hang Seng, Nikkei, etc.), the trend of changes in world oil prices, the trend of gold

prices, market sentiment abroad, and so forth. While the factors that originate from within the country is influenced by several factors which are economic factors or non-economic factors. Economic factors affecting the investment activity in the equity markets is reflected in the macro conditions that monetary indicators covering the rupiah against the US dollar, inflation and interest rates of SBI which will ultimately determine the rise and fall of stock index in the Indonesia Stock Exchange (Hismendi, 2013).

Tapering off to the policy conducted by the Fed have indirect effect on CSPI. Finance Minister Muhammad Basri said that the turmoil caused by the US Federal Reserve (the Fed) is planning to hold Quantitative Easing result in the weakening of the rupiah and index (tempo.co). The weakening of the exchange rate resulted in SBI interest rate rises. Rising interest rates SBI is followed by decline in CSPI. The phenomenon illustrates the fluctuating exchange rate, interest rate SBI and CSPI. It has given a strong reason in explaining the inter-relationship between the variables of exchange rate and interest rate of SBI with stock prices.

The rupiah weakened also increasingly sparked fears of market participants. The impact of the falling value of the rupiah against the dollar allows negatively affect the capital markets given that most companies that go - public on the Stock Exchange has a foreign debt in foreign currency. Products - products produced by the public companies are using materials that have a high import content. Recorded at the close of trading on Monday, February 10, 2014, the rupiah fell 12 points (0.10 percent) to Rp 12 173. In trading today, Tuesday, February 11, 2014, the rupiah is predicted to be above the support level of USD 12 182 per US dollar. Bank Indonesia middle rate is in the interval Rp 12172-12158 per dollar (tempo.co). In the long run, it is quite possible to market participants busy to switch to the currency investment instruments. Nine sectors listed in Indonesia Stock Exchange fell entirely with the greatest weakness experienced by various industry sectors which amounted to 1.97 percent. 27 business index also closed down 2.2 percent. On December 12, 2013, the Composite Stock Price Index (CSPI) closed down 1.39 percent. Of the 483 stocks traded, as many as 81 stocks rose, 155 stocks fell, and 247 shares remain stagnant. This shows that the rupiah weakened against the dollar have a negative impact on CSPI.

Besides exchange rate, macro-economic factor that influence CSPI is inflation. In each country, the state of inflation is inevitable just that the levels of inflation itself different, in the category of mild inflation and moderate, the economy is not too / disturbed, but when the category inflation severe and even hyperinflation, it can damage the economy and state a country. Inflation effect on CSPI because inflation affects the demand and supply of shares, the interest rate will be set so as to affect the stock price.

Similarly, the interest rate of SBI. In theory, interest rates and stock prices have a negative relationship (Tandelilin, 2010). Increasing the SBI interest rate resulted in investors prefer to save their money in banks in the form of savings. This is because the benefits of savings interest rate higher than the dividends obtained by investor per year. The drop in demand caused CSPI shares declined. Meanwhile, when the SBI interest rate decreases, CSPI tends to increase due to lack of interest of investors to invest in the stock exchange.

To see the development of the Indonesian capital market is one indicator that is often used is the Composite Stock Price Index (CSPI), which is one of the stock market index used by the Indonesian Stock Exchange (BEI). Their policy of tapering off will be conducted by the Fed have indirect effect on CSPI. Composite Stock Price Index (CSPI) listed on the Stock Exchange are affected by exchange rate, inflation, interest rates SBI.

LITERATURE REVIEW

Exchange Rate

Exchange rate is the price of one currency on the other currency (Salvatore, 1997). Exchange rate can also be defined as the price of one unit of the domestic currency in units of foreign currency. Given a currency is always facing the possibility of a decrease in the exchange rate om a currency or depreciation - other currency, or otherwise increase or appreciation, the international financial circles prefer using the effective exchange rate indicators. Effective exchange rate is the average exchange rate between the domestic currencies with the currencies of other countries who are partners - most important trading partner. Depreciation refers to the increase in the price of foreign exchange in units of domestic currency. While appreciation refers to the decrease in the price of foreign exchange in units of domestic currency. When the currency appreciates, the currency is said to be stronger because it can buy more foreign currency. Similarly, when a currency depreciates then the money is said to be weakened.

The exchange rate is divided over the exchange rate and the nominal value of the real exchange rate. The nominal exchange rate is the value that a person uses when exchanging currency of a country by another country's currency. While the real exchange rate is the value that a person uses when exchanging goods and services of a country with goods and services from other countries (Mankiw, 2006).

Inflation

The definition of inflation according to the Central Statistics Agency is the rising prices of goods and services in general in which goods and services are basic needs of society or a decline in purchasing power of a country's currency. Simply put, Bank Indonesia stated that inflation as rising prices - the prices in general and continuously. Bank Indonesia explains that inflation arises because of the pressure from the supply side (cost push inflation), on the demand side (demand pull inflation), and from inflation expectations. Factors occurrence of cost push inflation can be caused by the depreciation of the exchange rate, the impact of inflation abroad, especially countries trading partners, increased commodity prices are regulated by the government (administered price), and going negative supply shocks caused by natural disasters and disruption of distribution.

In addition, Bank Indonesia also explains the causes of demand pull inflation occurs is high demand for goods and services relative to availability. In the macroeconomic context, this condition is illustrated by real output exceeds potential output or total demand (aggregate demand) is greater than the capacity of the economy. Meanwhile, the factor of inflation expectations are influenced by the behavior of the people and economic players using the inflation rate expectations in the decision of economic activities. The inflation expectations are more likely to be adaptive or forward looking. This is reflected in the behavior of price formation at the level of producers and traders, especially on the eve of the religious holidays (Eid, Christmas and New Year) and the national minimum wage (UMR). Despite the availability of goods in general is estimated to be sufficient in support of the increase in demand, but the price of goods and services at times of religious festivals increases higher than the supply-demand conditions. Similarly, when deciding on the minimum wage, traders were also increases the price of goods despite the wage increase is not very significant in driving increased demand.

SBI Interest Rate

According to Bank Indonesia Circular Letter No. 10/28 / DPM on Bank Indonesia Certificate through an auction, it is mentioned that the SBI interest rate is securities in rupiah currency issued by Bank Indonesia in recognition of short-term debt. SBI interest rate is offered through auction, the sale of SBI interest rate is conducted by Bank Indonesia in the implementation of monetary policy.

When Bank Indonesia uses interest rates as a monetary policy variable, control is straightforward. BI can affect the interest rate by open market operations. Open market operations such as those set forth in Bank Indonesia Circular Letter No. 10/28 / DPM issuance of Certificate of Bank Indonesia, the transaction activity in the money market conducted by Bank Indonesia with Banks and other parties for the purpose of monetary control. If Bank Indonesia raised interest rates, means the central bank to withdraw money from the market. So that Value bonds prices will fall. Conversely, if Bank Indonesia lowered interest rates, means that BI offers money on the market. So that Value bonds prices will rise.

SBI interest rate is one of the mechanisms used by Bank Indonesia to control the stability of the Rupiah. By selling the SBI interest rate, Bank Indonesia can absorb excess money supply. The interest rate applicable on each sale of SBI interest rate is determined by market forces based on an auction system. Since its inception in July 2005, BI using Bank Indonesia interest rate mechanism, which announced the desired target of SBI interest rate interest rate for auction during the given period. BI rate is then used as a reference for market participants in the auctions.

Composite Stock Price Index

Composite Stock Price Index is a composite index of all stocks which are listed on the stock exchange and published by the stock exchange (Samson, 2006). Composite Stock Price Index (CSPI) an indicator showing the movement of stocks. Index serves as an indicator of market trends, meaning that the index movement describe, measure and report on market conditions at any time, whether the market is active or lethargic. Meanwhile, the parties outside the stock exchange are not interested in publishing CSPI because the index is still losing benefits with partial stock price index.

CSPI is calculated every day or every second during trading hours after the needs. CSPI changed every day because of changes in market prices that occur every day and the presence of additional shares. In the number of outstanding shares is derived from new emissions, namely the entry of new issuers listed on a securities exchange. The movement of the index an indicator for investors to determine whether they will sell, hold or buy one or more shares. Because stock prices move in seconds and minutes, then the value of the index was moving up and down within a short time anyway.

Stock market price changes occur due to demand and supply factors. There are variables that rational and irrational factors affecting demand and supply. The influence of the rational nature includes corporate performance, interest rates, inflation, and foreign exchange rates or share price index from other countries. The effect of irrational includes rumors in the market, follow a dream, whisper friends, or the price game.

METHOD

The method used in this research is a quantitative method. The data used as a sample in this research is secondary quantitative data in the form of time series is the data exchange rate,

the rate of inflation, SBI interest rate and stock price index is restricted to the data of each end of the month during observation period between January 2009 to December 2013. The data is accessed through the official website of the official website of Bank Indonesia, SEKI and BEI. Once data is collected, the data were analyzed using analysis techniques linear with SPSS for Windows 16.0. The researcher also test the hypothesis with T test and F-test and then test the classical assumption.

RESULTS AND DISCUSSION

Exchange Rate

Table 1: Exchange Rate Period 2009 – 2013

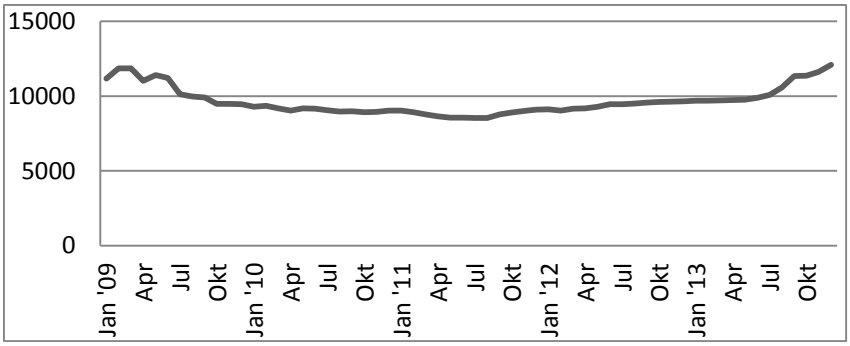
Month	Exchange Rate (Rp)				
	2009	2010	2011	2012	2013
January	11167,2	9275,45	9037,38	9109,14	9687,33
February	11852,8	9348,21	8912,56	9025,76	9686,65
March	11849,6	9173,73	8761,48	9165,33	9709,42
April	11025,1	9027,33	8651,3	9175,5	9724,05
May	11392,1	9183,21	8555,8	9290,24	9760,91
Juny	11206,6	9148,36	8564	9451,14	9881,53
July	10111,3	9049,45	8533,24	9456,59	10073,4
August	9977,6	8971,76	8532	9499,84	10572,5
September	9900,72	8975,84	8765,5	9566,35	11346,2
October	9482,73	8927,9	8895,24	9597,14	11366,9
November	9469,95	8938,38	9015,18	9627,95	11613,1
December	9457,75	9022,62	9088,48	9645,89	12087,1

Source : Bank Indonesia 2014

Based on Figure 1, it can be seen that the rupiah / US $ from the year 2009 to 2013 has fluctuated. As for the increase or decline in the rupiah / US $ are not too many changes. Rupiah most powerful occurred in August 2011 in the amount of Rp 8532, while the value of the rupiah weakness occurred in December 2013 in the amount of USD 12087.1.

In 2009, the rupiah/US$ has strengthened. It can be seen from January 2009 the rupiah/US$ is Rp 11.167.2 then progressively stronger until December 2009 amounted to USD 9457.75. In the following year the rupiah / US $ is relatively stable. In 2011 the rupiah/US$ continues to strengthen until August 2011 amounted to Rp 8532. But in the month - next month fell to $ 12087.1 which occurred in December 2013 in which the position of becoming the weakest position of the rupiah/US $.

Based on Figure 2, it can be seen that in 2009-2013, the rupiah / US $ at first weakened and then strengthened and eventually weaken. The graph above shows the rise and decline of the rupiah / US $ is not too big. In which the weakening and strengthening rupiah / US $ changes gradually, not drastically changed.



Graphics 1: Graph Exchange Rate Period 2009-2013
Source: BI Data 2014 that have been processed

Inflation

Table 2: Inflation Period 2009 – 2013 (%)

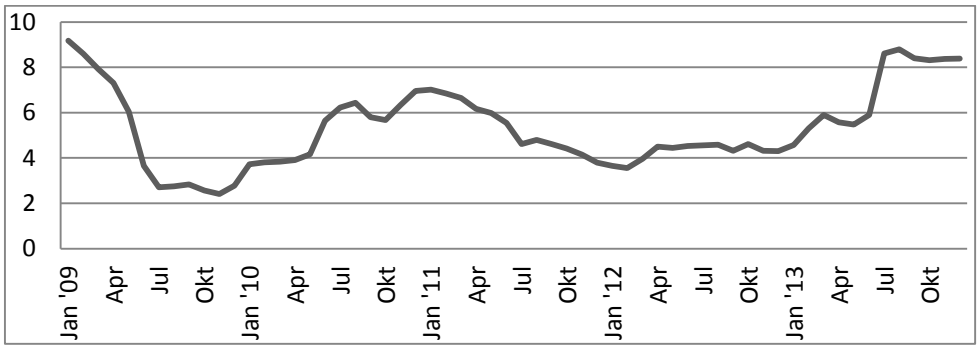
Month	Inflation (%)				
	2009	2010	2011	2012	2013
January	9,17	3,72	7,02	3,65	4,57
February	8,60	3,81	6,84	3,56	5,31
March	7,92	3,83	6,65	3,97	5,90
April	7,31	3,91	6,16	4,50	5,57
May	6,04	4,16	5,98	4,45	5,47
Juny	3,65	5,65	5,54	4,53	5,90
July	2,71	6,22	4,61	4,56	8,61
August	2,75	6,44	4,79	4,58	8,79
September	2,83	5,80	4,61	4,31	8,40
October	2,57	5,67	4,42	4,61	8,32
November	2,41	6,33	4,15	4,32	8,37
December	2,78	6,96	3,79	4,30	8,38

Source : Bank Indonesia 2014

The inflation data showed that the rate of inflation from the year 2009 - 2013 is a significant change. The highest inflation was in January 2009 amounted to 9.17%, while the lowest was in November 2009 by 2.41%. Year 2009 was a year in which there is a reduction enormous. In 2010 inflation began to rise again slowly until the month of December 2010 inflation rate of 6.96%. However, in 2011 inflation back down which occurred in February 2011 was 6.84%.

In February 2012, inflation is at 3.56%. This is because of the 66 CPI cities, 40 cities experienced inflation and 26 cities experienced deflation. Deflation caused abundant supply of red peppers and tomatoes that experienced price declines of up to 47% in some cities. Many cities experiencing deflation resulting in low levels of inflation in the month of February 2012.

In the following month inflation experienced ups and downs until rebounded by 8.61% in July 2013. This is because the impact of rising fuel oil (BBM) in June 2013. When fuel went up in June inflation is only 5, 9%. However, in July increased to reach 8.61%. The increase in fuel causes the price - the price of food rises so that the community needed more money to meet their needs. Thus, the amount of money circulating in the community is increasing and causing high inflation.



Graphics 2: Graph Inflation Period 2009-2013 (%)
Source: BI Data 2014 that have been processed

Based on Figure 4, it can be seen that inflation has increased quite dramatically in the period of 2009 - 2013. The sharp drop in inflation that occurred in 2009. The inflation rate at the beginning of 2009 amounted to 9.17% and decreased at the end of the year by 2.41%. Then begins to rise to a peak of 7.02% in January 2011. But inflation back down to the lowest point is 3.56% in February 2012. In the month - next month, the inflation rate has increased continuously until the month of December 2013 the rate of inflation amounted to 8.38%.

SBI Interest Rate

Based on the data obtained, the value of SBI interest rate fluctuated sharply in the period 2009 - 2013. In the year 2009 decreased every month. This can be seen in January SBI rate is in the highest position of 9.5% and continued to fall until the position of 6.46% in December. In 2010 the SBI interest rate does not fluctuate sharply. In the first half of 2011 the interest rate increased from 6.08% to 7.36%. However, in the second half of 2011 the interest rate decreased from 7.27% to 5.04%.

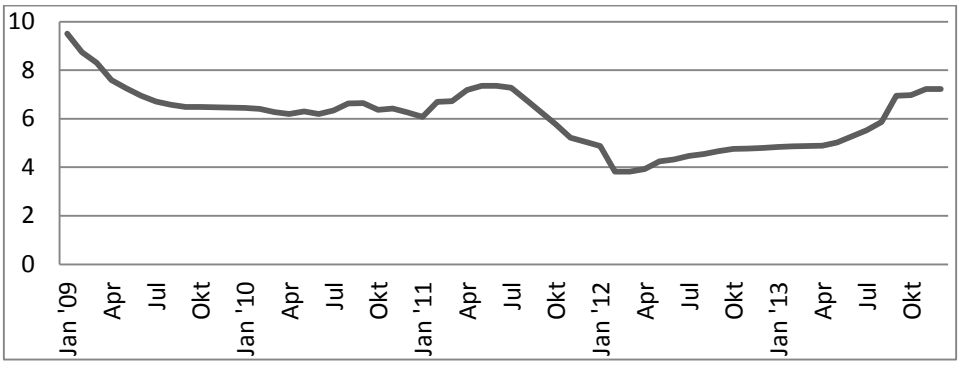
SBI interest rate reached the lowest value in February and March 2012 which is valued at 3.82%. After experiencing the lowest value, Bank Indonesia gradually raising interest rates SBI. In December 2013, SBI interest rate increased again to reach 7.22%.

Table 3: SBI Interest Rate Period 2009 – 2013

Month	SBI Interest Rate (%)				
	2009	2010	2011	2012	2013
January	9,50	6,45	6,08	4,88	4,84
February	8,74	6,40	6,70	3,82	4,86
March	8,31	6,27	6,72	3,82	4,87
April	7,59	6,20	7,18	3,92	4,89
May	7,25	6,30	7,36	4,24	5,02
June	6,95	6,20	7,36	4,32	5,27
July	6,71	6,34	7,27	4,46	5,52
August	6,58	6,63	6,77	4,54	5,86
September	6,48	6,64	6,28	4,67	6,95
October	6,49	6,37	5,77	4,75	6,97
November	6,47	6,42	5,22	4,77	7,22
December	6,46	6,26	5,04	4,80	7,22

Source: Financial Statistics Indonesia 2014

Based on Figure 6 can be seen that the SBI interest rate fluctuated sharply. From January 2009 to January 2011 there occurred a continuous decline. However, in April 2011, Bank Indonesia began to fix the interest rate of SBI and only lasted four months. After that the SBI interest rate has been going down until it reaches the lowest number in March 2012 in the amount of 3.82%. Post to decline, Bank Indonesia decided to fix by raising interest rates SBI little by little until the end of 2013 reached 7.22%.



Graphics 3: Graph SBI Interest Rate Period 2009 – 2013 (%)
Source: SEKI Data 2014 that have been processed

Composite Stock Price Index

Composite Stock Price Index in the Indonesia Stock Exchange is always changing from time to time. It occurs because the number of transactions of purchase and sale of shares occur every Monday - Friday in the stock market. The more the demand and supply of the CSPI shares will rise, and vice versa. The forces of demand and supply also affect stock price fluctuations, in which stock prices based auction trading system.

Composite Stock Price Index studied is the value of CSPI per month in the period 2009 - 2013. The development of Value bonds issuance value can be seen in Figure 7. Based on Figure 7 it can be seen that the CSPI has fluctuated during the period 2009 - 2013. The highest CSPI occurred in May 2013 that is equal to 5069 points and the lowest was in February 2009 that was 1285 points. Overall, CSPI has increased from year to year.

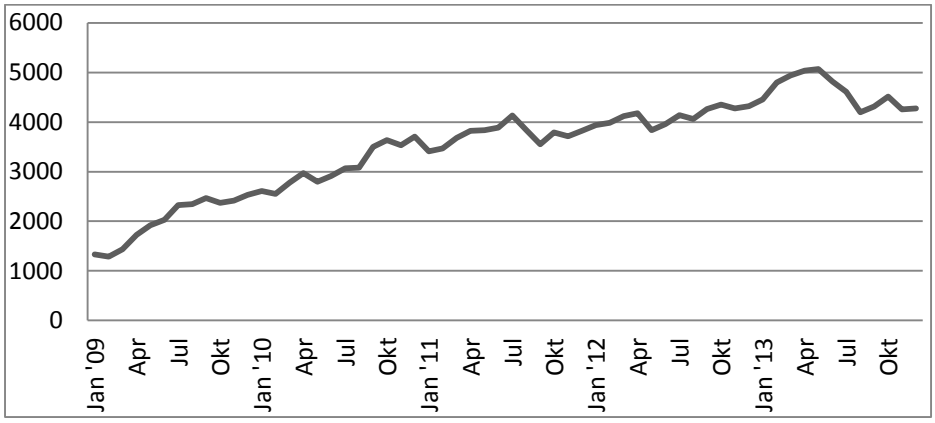
Table 4: Composite Stock Price Index Period 2009-2013 (Point)

Month	Composite Stock Price Index (Poin)				
	2009	2010	2011	2012	2013
January	1333	2611	3409	3942	4454
February	1285	2549	3470	3985	4796
March	1434	2777	3679	4122	4941
April	1723	2971	3820	4181	5034
May	1917	2797	3837	3833	5069
Juny	2027	2914	3889	3956	4819
July	2323	3069	4131	4142	4610
August	2342	3082	3842	4060	4195
September	2468	3501	3549	4263	4316
October	2368	3635	3791	4350	4511
November	2416	3531	3715	4276	4256

December	2534	3704	3822	4317	4274

Source: Financial Statistics Indonesia 2014

During 2009, CSPI has increased; seen in January 2009 CSPI is at 1333 points by December 2009 rose to 2534 points. In 2010, also rose in January where CSPI reached 2611 points and at the end of the year rose to 3704 points. In 2011, CSPI also increased, where in January CSPI currently on 3409 points and in December CSPI was on 3822 in points. In the following year, CSPI has fluctuated in May 2013 in which CSPI has the highest position that is 5069 points. Then CSPI decreased to be in the position of 4274 points in December 2013.



Graphics 4: Composite Stock Price Index Period 2009-2013 (Point)
Source: Data SEKI 2014 that have been processed

Figure 8 shows graphically that in the period 2009-2013 fluctuated. But overall composite stock price index has increased from year to year. Starting from the beginning of 2009 composite index was at 1333 points until the December 2013 stock index is at 4274 points, which during the period composite stock price index increased by 2941 points.

The Effect of Exchange Rate, Inflation and Interest Rates on Composite Stock Price Index

Based on the results of multiple linear regression analysis, it is known that large regression coefficient value of the rupiah/US$ at -0.254. This means that the rupiah/US$ has a negative influence on the composite stock price index. If the rupiah/US$ up 1 Rupiah/US$, the composite stock price index will be decreased by 0.254 points. The results of the analysis in chapter IV also indicates the probability Sig value of the rupiah/US$ is smaller than $\alpha = 0.05$. That is, the rupiah/US $ has a significant impact on composite stock price index. Based on the analysis, the rupiah/US$ a significant negative effect on composite stock price index period 2009-2013.

Based on the results of multiple linear regression analysis regression coefficient is known that the great inflation of 312.738. This means that inflation has a positive influence on composite index. If inflation rose by 1%, the composite index would be increased by 312.738 points. The analysis also showed inflation Sig probability value smaller than $\alpha = 0.05$. That is, inflation has a significant effect on the composite index. Based on the analysis, inflation has positive and significant impact on composite stock price index period 2009-2013.

Based on the results of multiple linear regression analysis, it is known that large regression coefficient of SBI rate is at -648.853. This means that inflation has a negative

influence on the composite stock price index. If the SBI rate rise 1%, the composite index will be down by 648.853 points. The analysis also shows the probability value Sig SBI rate is smaller than $\alpha = 0.05$. That is, the SBI interest rate has a significant impact on composite stock price index. Based on the analysis, the SBI interest rate a significant negative effect on composite stock price index period 2009-2013.

Simultaneously, based on the analysis of the rupiah/US$, the SBI interest rate and inflation significant effect on the Indonesia Stock Exchange Composite Index in the period 2009 - 2013. In the long-term effects, in addition to the rupiah/US$, inflation and interest rates SBI, there are other macroeconomic factors that are not mentioned in this study, but also affected investor to invest in the capital market, especially the stock. Before buying stocks, an investor usually do the analysis by comparing the market price and intrinsic value of the stock. The intrinsic value of the stock can be seen by knowing the inherent characteristics of these shares as the company's net profit, the company's assets, dividends and prospects of the company.

Besides, considering the intrinsic value of the stock, changes in macroeconomic factors are also important to consider. Yet, these factors will not immediately affect the stock but slowly over the long term. When changes in economic factors that happens, investors will calculate their impact both positive and negative, and then make a decision to buy or sell shares in question. Estimates or forecasts future price of a stock can be done by knowing the amount - the amount of macroeconomic variables and trends in changes in the future as the number of the money supply, national investment, GDP (Gross Domestic Product), as well as other government policies.

Partially, the rupiah/US$ have a significant effect on composite stock price index. The Rupiah / US$ a significant negative effect on the composite stock price index period of 2009 - 2013. This is because if rupiah/US$ depreciates, the composite index will weaken anyway. For the investors themselves, the weakening of the rupiah showed Indonesia's economic fundamentals situations in adverse conditions. When the economic outlook is not good, then investors tend to release their stock - its shares to avoid risk when going to invest in the Indonesian stock market and wait until the economic situation improves perceived. Sell shares this will certainly push down the composite stock price index.

In addition, if the rupiah/US$ weakening would increase production costs, especially the cost of imported raw materials. This will give a negative impact on corporate profits ultimately reduce earnings per share. The decline in earnings per share would make investors less interested in investing in stocks, so that there will be a sell stocks that caused demand to decline. Decline in demand will lead to decline in composite stock price index shares in the capital market.

The results of this study are consistent with results from studied conducted by Kewal (2012) and Hismendi (2013) which states that the rupiah/US$ a significant negative effect on composite stock price index. The strengthening of the exchange rate (appreciation) of the US$ will add to the rapid flow of capital into the country. In these conditions the investor will invest in shares. The number of investors who invest in shares resulted in an increase of composite stock price index. Conversely, when the rupiah to depreciate, investors will race - a race to release their shares to invest in US$. This led to the fall in the stock price so that composite stock price index has decreased.

The inflation rate that occurred during the period 2009 - 2013 fluctuated sharply. But overall composite stock price index has increased despite inflation fluctuated sharply. This occurs because when inflation increased demand for shares will also increase. This happens because when inflation reached its highest point the stock price will reach its lowest point, which would certainly be an opportunity for investors to invest in stocks that have a long term

with the expectation of higher yields. When the stock price declines, investors will buy shares that causes increasing demand for stocks. Increased demand will lead composite stock price index shares increased as well.

The results of this study are consistent with results from studies Pratikno (2009) which stated that inflation has positive and significant impact on composite stock price index in BEI. This implies that if inflation increases, composite stock price index will also rise. At the time of inflation at the highest position, the investor expects that the movement of the stock will increase in line with the decline in interest rates.

In this study, the result is that the SBI interest rate have a significant effect on composite stock price index. When viewed from the monetary policy, the investment is more influenced by real interest rates and real interest rates are influenced by the SBI rate. When the SBI interest rate is higher than real interest rates will be high so that the public chose to save their money in banks rather than investing in stocks. This caused demand to decline so composite stock price index shares will decrease, and vice versa. So the relationship between the SBI rate indirectly affect the composite stock price index.

SBI rate has a significant and negative effect on composite stock price index in period of 2009 - 2013. This is because of rising interest rates SBI may increase the burden on companies to fulfill obligations / debts to banks. Thus, declining corporate profits and ultimately make the stock prices down. SBI interest rate hikes also potentially encourage investors to shift their funds to savings and time deposits, as interest rates of savings and deposits are higher than profits shares granted by the company. Declining demand resulted in composite stock price index shares to be down, and vice versa.

The results of this study are consistent with results from study by Hismendi (2013) and Astuti (2013) which stated that the SBI interest rate has a significant negative effect on composite stock price index. High interest rates certainly will have an impact on the allocation of investment funds by investors. Investment products such as bank deposits and savings clearly smaller risk than investing in stocks. So investors will sell their shares and then will save their money in banks. Simultaneously, sale of shares will impact on the stock price significantly so that composite stock price index will decline.

CONCLUSION AND RECOMMENDATION

Based on the findings of research and discussion, the results can be summarized as follows: (1) the rupiah/US$ and the SBI interest rate influence both significantly and negatively affect the Composite Stock Price Index in Indonesia Stock Exchange period 2009-2013, while inflation has positive and significant impact on the Composite Stock Price Index in Indonesia Stock exchange in period of 2009-2013, (2) simultaneously, the rupiah/US$, inflation and interest rates SBI have significantly influence the Composite Stock Price Index in Indonesia Stock exchange period 2009-2013, (3) the SBI interest rate is the dominant factor affecting the Composite Stock Price Index in Indonesia Stock Exchange period 2009-2013.

Based on the above conclusions, the recommendation which can be given in this study are as follows: (1) investors should pay attention to the information about rupiah / US $, inflation and interest rates of SBI issued by Bank Indonesia. Because of the presence of such information can be used to predict the Composite Stock Price Index (CSPI) in Indonesia Stock Exchange (BEI) which is then to take the appropriate decisions with respect to investments, (2) further research should consider the addition of a period of study so that the results can represent the existing conditions. In addition, future studies should add other variables that are expected to give better results.

REFERENCES

Badan Pusat Statistik. *Inflasi*. (Online), (http://bps.go.id/menutab.php? tabel=1&kat=2&id_ subyek=03), accessed 10 February 2014.

Bank Indonesia. *Inflasi*. (Online), (www.bi.go.id), accessed 26 February 2014.

Bisnis. *Dampak Tapering Off, Capital Outflow di Pasar Obligasi Rp1,45 Triliun*. (Online). (http://m.bisnis.com/finansial/read/20140203/9/200810/dampak-tapering-off-capital-outflow-di-pasar-obligasi-rp145-triliun), accessed 24 March 2014.

Bursa Efek Indonesia. *Obligasi*. (Online), (http://www.idx.co.id/id-id/beranda/informasi/bagiinvestor/ obligasi.aspx), accessed 10 February 2014.

Bursa Efek Indonesia. (Online), (http://www.idx.co.id), accessed 10 February 2014.

Detik Finance. *Kronologi dan Latar Belakang Krisis Finansial Global*. (Online). (http://finance.detik.com/read/2009/04/15/120601/1115753/5/2/kronologi-dan-latar belakang-krisis-finansial-global), accessed 24 March 2014.

Edward. 2007. *"Analisis Faktor – Faktor Yang Berpengaruh Terhadap Perubahan Harga Obligasi"* tesis yang diterbitkan (http://eprints.undip.ac.id/17255/1/Edward.SS.pdf, accessed 10 February 2014). Semarang: Program Pasca Sarjana, Universitas Diponegoro.

Hartono, J. 2009. *Teori Portofolio dan Analisis Investasi*. Yogyakarta: BPFE.

IBPA (*Indonesia Bond Pricing Agency*). *Obligasi Indonesia Tumbuh Pesat*. (Online), (http://www.ibpa.co.id/News/ArsipBerita/tabid/126/EntryId/4428/Obligasi-Indonesia-Tumbuh-Pesat.aspx), accessed 10 February 2014.

Ichsan. 2013. Dampak BI *Rate*, Tingkat Suku Bunga, Nilai Tukar, Dan Inflasi Terhadap Nilai Obligasi Pemerintah. *Jurnal Keuangan dan Perbankan*, (Online), 17 (2): 310-322, (http://jurkubank.files.wordpress.com/2013/12/14-ichsan_suku-bunga-ok.pdf), accessed 27 February 2014.

Kamus Bisnis. *Definisi Sertifikat Bank Indonesia*. (Online), (http://kamusbisnis.com/arti/sertifikat-bank-indonesia/), accessed 27 February 2014.

Kompas. *Quantitative Easing: Mekanisme dan Dampaknya*. (Online). (http://forum.kompas.com/saham-valas/202373-quantitative-easing-mekanisme-dan-dampaknya.tml), accessed 24 March 2014.

Kontan. *Apa itu Quantitative Easing? Apa itu Tapering?* (Online). (http://fokus.kontan.co.id/news/apa-itu-quantitative-easing-apa-itu-tapering), accessed 24 March 2014.

Nilasari, W.M.T. 2010. *Pengaruh Inflasi dan Tingkat Suku Bunga Bank Indonesia Terhadap Harga Obligasi Syariah yang Listing di BEI Pada Tahun 2008 - 2009*. Skripsi tidak diterbitkan. Malang: UM.

Puspita, W.A. 2011. *Analisis Pengaruh Suku Bunga SBI Terhadap Nilai Emisi Obligasi Baik Dalam Jangka Pendek Maupun Jangka Panjang Di Pasar Modal Indonesia Periode Tahun 2007 - 2009*. Skripsi tidak diterbitkan. Malang: FE UM.

Samsul, M. 2006. *Pasar Modal & Manajemen Portofolio*. Jakarta: Erlangga.

Sugiyono. 2012. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.

Surat Edaran BI No. 10/28/DPM. Bank Indonesia. (Online), (http://www.bi.go.id/id/peraturan/moneter/Documents/f70ab9ed44f0441bafb022dadbe6e0dcSE_102808.pdf), accessed 24 February 2014.

Tandelilin, E. 2010. *Portofolio dan Investasi Teori dan Aplikasi*. Yogyakarta: Kanisius.

Tempo. *Stimulus Amerika, Apa Dampak Buruk bagi Indonesia?* (Online). (http://www.tempo.co/read/news/2014/02/01/092550026/Stimulus-Amerika-Apa-Dampak-Buruk-bagi-Indonesia), accessed 24 March 2014.

Universitas Negeri Malang. 2010. *Pedoman Penulisan Karya Ilmiah: Skripsi, Tesis, Disertasi, Artikel, Makalah, Laporan Penelitian,* Edisi Kelima. Malang: Biro Administrasi Akademik, Perencanaan, dan Sistem Informasi bekerja sama dengan Penerbit Universitas Negeri Malang.

Vivanews. *BI Rate Naik Sebagai Persiapan Hadapi Akhir Masa Easy Money*. (Online). (http://bisnis.news.viva.co.id/news/read/461246-boediono--bi-rate-naik-sebagai-persiapan-hadapi-akhir-masa-easy-money), accessed 10 February 2014.

Vivenews. *Inflasi Januari 1,07 Persen, BI: Tidak Aneh*. (Online). (http://bisnis.news.viva.co.id/news/read/478645-inflasi-januari-1-07-persen--bi--tidak-aneh), accessed 24 March 2014.

Widarjono, A. 2009. *Ekonometrika*. Yogyakarta: Ekonisia.

Green Accounting as a Part of University Social Responsibility: A Literature Review

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Abstract: Recently, the most challenging world problem currently faces is climate change like global warming, soil erosion, land degradation, and pollution .That problem primarily caused by human who indiscriminate use of natural resources. New environmental regulations needed over the problems. The opportunity exists for professional accountants to contribute to solving those issues through green accounting. This paper is primarily to understand the concept of green accounting and describing green accounting as a part of university social responsibility. Paper showed that green accounting is one of the accounting concepts which reffers to environmental element in the organizations. Implementation of green accounting is not only in the industry companies but also in the university as a form of university's responsibility for society. University's responsibility for society is called University Social Responsibility. This paper found that green accounting as a part of University Social Responsibility is one of green movement which tilting towards consensus on the pivotal concept of sustainable development. Green accounting identifies, measures, and allocates that are to be addressed in environmental management accounting systems of the university. Many environmental costs can be significantly eliminated as a result of green accounting. The fact that green accounting not fully implemented in university, this paper found that green accounting could help university to identify environmental cost and saving opportunities to develop greener movement.

Keywords: Green accounting, university social responsibility, environmental element, environmental cost.

Recently, the most challenging world problem currently faces is climate change. Climate change is the condition that there is a change in the statistical distribution of weather's pattern or fluctuation and repeats over prolonged periods when that change lasts for an extended period of time. Climate change is like global warming, soil erosion, land degradation, and all many kind of pollution. Scientists detects that there are a certain human activities have also been identified as significant causes of recent climate change. The largest known human contribution comes from the burning of fossil fuels. That activity was releasing carbon dioxide gas to the atmosphere. Human activities contribute to climate change since the start of the industrial era. Now, human activities result in emissions for principal greenhouses gases are carbon dioxide, methane, nitrous oxide, and halocarbons (Nunes and do Carmo, 2008; Walmsley 2010).

The greenhouses effect is a naturall phenomenon whereby certain gases in the earth's atmosphere absorb heat that would otherwise escape to space. This heat originates from visible sunlight that warms the earth's atmosphere where some of it absorbed by greenhouses gases and radiated back to the surface. The histories and magnitudes various forcing are esteemed of solar radiation in recent decades are then examined for the potential to cause the observed pattern of climate change. Climate changes impacts are already occurring in the Greater Himalayas. The most widely reported effect is the rapid reduction of glaciers which has implications for future downstream water supply. Ongoing climate shange over succeeding

decades will likely have additional negative impacts across these mountains including significant cascading effects on river flows, groundwater recharge, natural hazards, and human livelihoods.

Climate change not only caused human activates but also may give impact on human health and activities. Increasing recognition of the process of climate change has led to a growing interest by health researchers in assessing the potential mechanisms by which changes in climate could influence health. Such health effects will be modulated by factors such as socio-economic development and by the degree to which effective adaption measures are implemented. Though most research have assessed the potential impacts of climate changes in isolation from other environmental changes will be experiences against a background of other global changes such as population growth, urbanization, land use changes and depletion of fresh water resources that themselves have implications interact with climate change to magnify the impacts.

Climate change in hydrology can influences biodiversity in a variety of ways, moisture arability governs physiology, metabolic and reproductive processes, phenology, there line positions, and the geographic distribution of freshwater and wetland habitats. Climate change influenced affects the ability of biological system to support human needs. Climate change made increase into higher temperature. Heat is already cause of weather relates deaths in United Stated with more than 6,300 deaths resulting from exposure to extremely hot weather between 1979 and 2006. Diseases such as cholera and salmonella, which are transmitted through contaminated food or water, could become more widespread with climate change because of increased flooding.

Climate change could also cause more severe allergy symptoms because a warmer climate is expected to promote the growth of the molds, weeds, grasses, and trees that cause allergic reactions in some people. Climate change has already caused the spring pollen season to begin earlier in North America. Ragweed has been observed to grow faster and flower earlier in urban areas where effects of climate change are enhanced compared with rural areas.

So, what we can do to minimalize the impact of climate change? We can start from regulation first. The industrial company used to single bottom line basis for sustainable. The single bottom line concept enlighten business logic for business principles that implementation *value-centered sustainability*. The single bottom line concept motivated industrial companies to make a profit as the primary driver i the effort to maintain the growth and survival of the company. Today, companies are required not only the pursuit of economic gain but also should be oriented towards the Triple Bottom Line concept – People, Planet, and Profit – proposed by Elkington through his book *Cannibals With Forks, the Triple Bottom Line of Twentieth Century Business.*

Green Accounting

Accountant is not only analyst and make financial statement but also can make new regulations over the problem and minimalize the impact of climate change. The new environmental accounting regulation can solve that issues through green accounting that we hope can make our world greener.

Accounting is a discourse that is affected and affects the environment. Accounting grows and thrives in a society that has also been growing. Its existence is not a value-free against future development. Methods of accounting introduced by Luca Pacioli at that time deemed to be sufficient and adequate because able to solve the problem of reporting and bookkeeping business needed at this time, however, when the complexity of the business is getting higher,

the necessary methods of measurement, recognition and reporting of the more advanced (Utomo, 2000). As a result, the accounting continues to evolve to match the needs of his time.

When the environmental movement (green movement) swept the world, accounting to improve itself to be ready to internalize the externalities that arise as a consequence of industrial processes, so was born the term Green Accounting or accounting environment (environmental accounting). Similarly, when most of the industry is starting to show its social face (capitalism with a human face), indicated with a focus on employees and community development activities, as well as attention to other stakeholders, accounting accommodate such changes by generating a discourse of social accounting (social responsibility accounting). Since understanding of accounting as part of the service functions of social, cultural, economic and even political, many factors affect the accounting itself.

The term Green Accounting in his article as follows; The Introduction of "Green Accounting", however well thought out, will, under the present system of accounting phallocentric, do nothing to avert today's environmental crisis. In fact, it could of make matters even worse (Cooper, 1992, p. 36). According to the Environmental Accounting Guidelines (2005), "Environmental accounting, as defined In These guidelines, aims at Achieving sustainable development, maintaining a favorable relationship with the community, and pursuing effective and efficient environmental conservation activities.

Green accounting is one of type accounting that can give you information about how many environmental costs to be incurred companies to produce environment-friendly products or services. Green Accounting is a new system of environmental accounting that enables the calculation of income for the country, having regard to the economic damage and the depletion of natural resources. According to the EPA, Green Accounting management is the identification, prioritization, quantification or qualification, and the incorporation of environmental costs into the decision.

Using of the concept of green accounting for companies to encourage the ability to minimize the environmental problems that it faces. Many large enterprises and service industries are now implementing environmental accounting. The aim is to improve the efficiency of environmental management by assessing environmental activities from the stand point of environmental costs and the economic benefit.

Environmental costs are the effects of the financial side of the non-financial ability charged as a result of the activities that affect environmental quality. Environmental accounting system consists of conventional accounting environment and ecological accounting. Conventional environmental was accounting to measure the effects of the natural environment in a company in financial terms. Accounting ecological trying to measure the impact of a company based on the environment, but the measurements are made in the form of physical units (the rest of the production of goods in kilograms, energy consumption in kilojoules, etc.), but the standard measurement used not in the form of financial entities (Sukma, 2013).

In 1990, an opinion poll in the United States (Bragdon and Donovan, 1990) and some countries (Choi, 1999) reported that most people feel that the discourse of the environment is important and the requirements and standards to be not complicated, and the development environment continuous must be continuously improved with of course its expensive boarding (Bragdon and Donovan, 1990). The results of this opinion poll suggested that stakeholders focus in terms of the company responsible for environmental issues. Much can be done by companies to communicate their attention to environmental issues; it covers newspapers, business publications, television or radio, as well as the annual financial statements (Gamble, et al., 1995).

Currently there are no basic standard concerning environmental disclosure items. However, some institutions have issued recommendations environmental disclosure, including Economic and Social Council-the United Nations (ECOSOC-UN), Ernst and Ernst, Institute of Chartered Accountants in England and Wales (ICAEW) and the Global Reporting Initiative (GRI). The motivation behind the company to report on environmental issues is dominated by a factor of volunteerism (Ball, 2005; Choi, 1999), capitalization or financing of environmental problems and the existence of contingent liabilities set out in accounting standards such as FASB (Gamble, et al., 1995), their agency theory (Watts and Zimmerman's. 1978), the theory of political legitimacy and economic theory (Gray, et al., 1995).

In this study, is expected to reinforce the parties associated with the Green Accounting in its effort to join and participate in the effort to realize the concern for the environment. A little more expected that Green accounting become agents of change for environmental improvement (Bebbington, 1997). The thing to note is the changes made by the research findings in the Green Accounting is not just of theoretical side but also from the practice in area. The possibility of changes in accounting practices depends on the transformation of understanding of accounting to the current generation (Day, 1995). The theory was created based on empirical research would be more convincing in terms of the transformation of the art. To that end, transformation Green Accounting is empowering both educators and learners is the basis for the present study. For the making of the curriculum in education was also very instrumental in the transformation of the concept of Green Accounting optimizing this.

In today's conditions, probably the most important and interesting is the development agenda of the Green Accounting as a concept of sustainable elaboration which is expected to become the basis for decision making. Redclift (1987) states that the definition of sustainable development is promoting between natural resources are limited to the achievement of economic objectives. Sustainability is a close relationship between economic, environmental and social. To that end, Green Accounting associated with sustainability, will require adjustments between conventional accounting with social needs in the vicinity. Green Accounting associated with sustainability are provides information such as the calculation of what it will cost incurred by the company to the products / services they produce are products / services that are environmentally friendly, safe for consumption or use.

Green Accounting Measurement

Most environmental problems are closely connected with social problems such as poverty. Building a sustainable community with the integration of environmental improvement, economic, and social becomes important to ensure future generations can enjoy life to the harmonization comfortable environment. New technology development and deployment of products and services that are environmentally friendly is an important activity that minimalize with less significant environmental impacts. Disclosure of environmental information becomes a very important factor in improving the social functions of an infrastructure that provides economic benefits that environmentally friendly.

Until now, there are some standards for reporting the issue of sustainability of a company. In 2005, the international auditing and Assurances standards boards (IAASB) approved international standard for sustainability reporting companies. , International Standard for Assurance Engagements (ISAE) 3000 is used by accounting firms that conduct corporate responsibility assurance engagements if there is a no national alternative (Ballou et. al., 2006). In November 2003, Statement of Position (SOP) 03-2, Attest Engagements on Greenhouse Gas Emissions Information, was developed by the Joint Task Force of the American Institute of Certified Public Accountants (AICPA) and Canadian Institute of

Chartered Accountants (CICA) on Sustainability Reporting to provide guidance for the application of assurance standard AT101 to greenhouse gas information (AICPA, 2011).

The Global Reporting Initiative (GRI), a comprehensive sustainability reporting framework that serves as a guide for any organization reporting on its economic, environmental, and social performance, was established in 1997. The Sustainability Reporting Guidelines provide reporting principles, reporting guidance, and standard disclosures (including performance indicators) (2011). The Sustainability Reporting guidelines provide reporting principles and guidance and standard disclosures (including performance indicators) (2011). All of these initiatives contribute to comprehensive reporting and stakeholders' understanding of finance l, social and environmental issues, but they do not provide guidance for measuring the social and environmental costs.

In Indonesia, the Indonesian Institute of Accountants (IAI) has developed a standard of disclosure of environmental accounting under Statement of Financial Accounting Standards (SFAS) No. 32 and 33. Both SFAS regulates liability companies from the mining and forest concession owners to report item-item environment in the financial statements. In addition, Indonesia also has a framework for the conservation of the environment with the issuance of Law No. 23 of 1997 on Environmental Management, which revised the previous regulation of 1982 on Environmental Management. Furthermore, a memorandum of understanding between KLH and BI was signed in 2005 ago as a follow-up of Bank Indonesia Regulation No. 7/2 / PBI / 2005. Environmental aspect to be one of the determining variables in lending and environmental performance issued by the Ministry of Environment through the PROPER is their benchmark.

Since 2000 Japan succeeded in proving that with the implementation of Green Accounting increase its profit. Based on "A Survey of Corporate Environmental behavior" implemented by the Ministry of Environment Japan, showed that the number of companies that implement green accounting increased from 40.9% to 51% due to reduce the environmental costs so that profits can be increased (Kokubu and Nashioka, 2001).

Japan's Environment Agency which later became the Ministry of Environment issued the environmental accounting guidelines (Environmental Accounting Guidelines) in May 2000. This guide was then revised in 2002 and 2005. All companies in Japan are required to apply the Green Accounting. Japanese big companies began to put the position of environmental accounting (Green Accounting) is aligned with financial accounting. A growing number of companies in Japan has been implementing environmental accounting in accordance with the regulations and instructions issued by the Ministry of the Environment of Japan. Background importance of environmental accounting is basically demanding full consciousness companies and other organizations that have benefited from the environment. It is important for companies or other organizations in order to increase efforts in considering sustainable environmental conservation (Sukma, 2013).

Environmental Reporting Guidelines at the latest in 2012 there were two parts, namely Part One: Concept of Environmental Reporting and Reporting Principles and Part Two: Report Contents in Environmental Reporting. In the first part there are three chapters, namely Chapter 1: Concept of Environmental Reporting, Chapter 2: Principles of Environmental Reporting, and Chapter 3: Framework for reporting environmental. The second section, there are five chapters in it, namely Chapter 4: Report Parameters and Summary; Chapter 5: Information and Indicators on how Environmentally Focused Management Including Environmental Management is working; Chapter 6: Information and Indicators on Environmental Impacts of Business Activities and Environmental Initiatives Undertaken to Mitigate Them; Chapet 7: Information and Indicator on the Economic and Social Context of Environmentally Focused Management, and Chapter 8: Miscellaneous Content to Be Disclosed.

Environmental costs in writing An Introduction to Environmental Accounting As A Business Management Tool (1995) compiled by United States Environmental Protection Agency (US EPA) says if the costs which occurred in the company can be divided into several groups:

Conventional Costs are the cost of raw materials, utilities, capital goods, and supply usually discussed in cost accounting and capital budgeting, but not considered as environmental costs. Potentially Hidden Costs are the costs that may be potentially hidden from the manager. Among them are environmental upfront costs that occur before the surgery. Contingent costs or contingency fees are fees that may or may not be occured in the future. Image and Relationship Costs include the cost of annual environmental reporting and public relations activities, the cost of voluntary activities environment such as planting trees, and the costs for the program awards or recognition.

Environmental prevention costs are the costs for activities performed to prevent waste produced and or waste that cause environmental damage. Examples of preventive activities: Evaluation and selection of suppliers, the evaluation and selection tools for pollution control, process design and product to reduce or eliminate waste, training personnel, studying the environmental impact, audit environmental risks, the implementation of field research, the development of an environmental management system, recycle the product, and obtaining ISO 14001 certification. Environmental detection costs are the costs for activities performed to determine whether a product, process, and other activities in the company has met the environmental standards applicable or not. Environmental standards and procedures to be followed by the company is defined in three ways, are government regulation, voluntary standards (ISO 14001) developed by the International Standards Organization, and Environmental policies developed by management.

Environmental internal failure costs are the costs for the activities undertaken since it produces waste and garbage, but not discharged to the outside environment. Internal failure costs occur to remove and process waste and garbage when it is manufactured. Activities internal failures have one of two objectives: to ensure that the waste and sewage produced is not discharged to the outside environment; and to reduce the level of waste disposed so that the numbers do not pass environmental standards. Environmental external failure costs are the costs for activities undertaken after removing sewage or waste into the environment. External failure costs can be further divided into categories of realized and unrealized. External failure costs Realized (Tirrenus external failure cost) is experienced and fees paid by the company. The cost of failure that cannot be realized (unrealized external failure costs) or social costs (societal cost), caused by the company but experienced and paid for by the parties outside the company.

University Social Responsibility

Implementation of green accounting is not only in industry companies but also in the university as a form of university's responsibility for society. The concept of social responsibility or Corporate Social Responsibilities (CSR) at the college was better known as University Social Responsibilities (USR). University Social Responsibilities (USR), is basically an ethical policies which affect the quality of the performance of community colleges that include students, administrators, teachers and all employees of the college through the management responsible for the impact of education, cognitive, labor and the environment generated by universities through an interactive dialogue with the public in order to generate sustainable human development.

University Social Responsibility (USR) can be defined a policy of ethical quality in the activities of the university community (students, lectures, and administrative staff), through

responsible management of the educational, cognitive, labor and environmental impacts of the university, in a participative dialogue with society to promote sustainable human development in four steps: (1) commitment, (2) self-diagnosis, (3) compliance, and (4) accountability. (Vallaeys, 2013: 1). In addition, USR also be described as the university's commitment to achieve something other than education (knowledge transfer), research, teaching, and scholarship (Esfijani et al, 2012). USR can also be interpreted as a philosophy of the universities role in the ethical approach to develop and establish ties with local and global community to continue the development of social, ecological, environmental, engineering and economics.

University social responsibility (USR), is a philosophy or principle for social movement, which can be perceived as a philosophy of a university to use an ethical approach to develop and engage with the local and global community in order to sustain the social, ecological, environmental, technical, and economic development. USR described as university engagement and that university partnership with its communities is achieved through education (transferring knowledge), provision of services, research, teaching, and scholarship. Scope of USR is economic, ethical, suchh social, philanthropic, and environmental.

USR covering social issues, the environment and the economy cannot be separated from the strategic and operational plan of the university, where the most important aspect is how universities interact with internal and external stakeholders. The concept of this USR becomes important points while in the 2nd Asia-Europe Education Workshop with the theme Knowledge societies Austria: Universities and their Social Responsibility. During the discussions in the workshop, the conclusions that can be drawn is that the social dimension should be integrated with policies and strategic plans in higher education institutions. Based on this continuous approach, sustainable campus is a strategy that seeks to reduce the ecological impact of the institution through the rational use of resources and educate the entire community is in college about sustainability ethics.

Why university should have a University Social Responsibility? Because every graduate from that university not only has a competitive competence in technology and science but also has a high sense of environmental awakes and always able to minimize the negative environmental impact of what they do. In addition by making the adoption of green campus was through trees planting around the campus, the application of non-smoking areas on campus and to realize the campus into a clean and healthy environment. Some of those steps should be done by a college to apply USR as part of an ongoing activity and embodied in the vision and mission of the college.

Green Accounting as a Part of USR

Sustainable management and sustainable campus with attention to environmental aspects become very aware of. Climate change was caused by pollution of water, air and natural resources become the world's problems today. Those problems led to a crisis of water, energy and the reduction of green land today and the future. Green accounting university-based social responsibly aims to create a campus infrastructure that comply with the needs and support the comfort and productivity. Green accounting as a part of University Social Responsibility is one of green movement which tilting towards consensus on the pivotal concept of sustainable development. Green accounting in University Social Responsibility is green tools to support green movement in the world. Green accounting identifies, measures, and allocates that are to be addressed in environmental management accounting systems of the university.

Green accounting was associated with sustainability are giving information such as the calculation of what it will cost incurred by the college in order that intra-campus activities or existing infrastructure within the campus environment is an environment-friendly. One of the

environmental programs lately is primarily intended for university environment is called eco-campus program (Green Campus). Basically a variety of environmental programs made by the government is no exception eco-campus is voluntary (volunteer) and a stimulus program, where there is no element of coercion or pressure from the government. Thus the expected is emerging and developing awareness and people's awareness of its own campus in preserving the environment. Likewise, the campus as a gathering place for intellectuals and place of birth to the next generation of young intellectuals are expected to be a model or example for other institutions in good environmental management.

Green Campus is a program or movement that is trying to make the campus a comfortable, shady, shady, and beautiful and of course, can reduce global warming. Campus is expected to implement science and technology is held primarily in the field of environment. Campus should become the motor of change towards a green environment. Go green concept here is not just to plant trees or make the campus into a "green". But how the campus can be use existing resources effectively and efficiently. Ranging was using of electricity, water, paper, waste management, drainage channels and much more.

According to the Environment Agency Surabaya (2011), eco-campus is defined as a campus that has been caring and cultured environment and has conducted environmental management systematically and continuously. Eco-campus is a reflection of the involvement of the entire academic community located within the campus to always pay attention to aspects of health and the surrounding environment.

Some indicators of the creation of eco-campus, among others, the policy management campus-oriented environmental management, their efforts to save water, paper, and electricity, their reforestation to achieve ideal proportions green open space, the availability of the building / building environmentally friendly, maintenance of cleanliness and environmental comfort, the creation of a campus without smoking and pollution-free, the implementation of environmental education for students, as well as the awareness and involvement of all elements of the academic community in the culture of environmental care.

To achieve the indicators are very comprehensive urgent action is required sustainable and not just a mere ceremonial or event. Therefore, changes in the mindset of entering academic community in addressing and treating the environment with care is the first step which needs to be pursued. There is an appreciation given to universities which managed to increase green space and lowering carbon emissions in the environment around the university. One such award is the UI Green Metric. UI Green Metric is a tribute organized by the University of Indonesia (UI), which is given to college - universities worldwide that have a strong commitment to environmental management in the campus since 2010.

CONCLUSION

The most challenging world problem currently faces is climate change like global warming, soil erosion, land degradation, and pollution .That problem primarily caused by human who indiscriminate use of natural resources. New environmental regulations needed over the problems. The opportunity exists for professional accountants to contribute to solving that issues through green accounting.

Green accounting is one of the accounting concepts which refer to environmental element in the organizations. Implementation of green accounting is not only in the industry companies but also in the university as a form of university's responsibility for society. University's responsibility for society is called University Social Responsibility. Green accounting as a part of University Social Responsibility is one of green movement which tilting towards consensus on the pivotal concept of sustainable development. Green accounting identifies, measures, and

allocates that are to be addressed in environmental management accounting systems of the university. Many environmental costs can be significantly eliminated as a result of green accounting. The fact that green accounting not fully implemented in university, this paper found that green accounting could help university to identify environmental cost and saving opportunities to develop greener movement.

REFERENCES

Ball, A. 2005. Environmental; accounting and change in UK local government. *Accounting, Auditing & Accountability Journal*. Vol. 18, No., pp. 46-373

Bebbington, J. 1997. *Engagement, education, and sustainability*. *Accounting, Auditing, and Accountibility Journal.* Vokume 10. No.3., pp. 365-381.

Bragdon, P. & Donavan, B. 1990. Voters'concerns are turning the political agenda green. Congressional Quarterly (January 20): 186-187.

Cooper, C. 1992. The non and nom of accounting for (m)other nature. *Accounting, Auditing & Accountability Journal*, Vol. 5 No.3, pp. 16- 39.

Choi, J.S. 1999. An investigation of the initial voluntary environmental disclosures made in Korean semiannual inancial report. *Pacific Accounting Review.Palmerston North, June*, Vol.11, Iss. 1; pp. 73

Day, M.M. 1995. Ethics of teaching critical; feminism on the wings of desire. *Accounting, Auditing & Accountability Journal*. Volume 8. No.3, pp. 97-112.

Gamble, G.O. et al. 1995. Environmental disclosures in annual reports and 10Ks:An Examination. *Accounting Horizons. Sarasota*, September. Vol. 9. Iss.3, pp. 34.

Environmental Accounting Guideliness 2005

Environmental Reporting Guidelines 2012

Gray, R. & Laughlin, R. 1991. Editorial, *Accounting, Auditing, andAccountibility Journal,* Vol. 4, No. 3, pp. 1-4.

Gray, R., Kouhy, R. & Lavers S. 1995. Corporate Social and Environmental Reporting: A Review of the Literature and a Longitudinal Study of UK Disclosure. *Accounting, Auditing & Accountability Journal*, Vol. 8, 47-77.

Redclift, M. 1987. *Sustainable Development:Exploring the Contradictions*. Methuen. London.

Sukma, D. 2013. *Apa Sebenarnya Akuntansi Lingkungan itu*?.online. keuanganlsm.com.

A Needs Analysis for Vertebrate Zoology Materials Development

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Abstract: Referring to its objectives, vertebrate zoology plays a crucial role in preparing students to get involved in an education community. The materials, therefore, are obviously essential to achieve the goal. This study was conducted as a needs analysis prior to vertebrate zoology materials development. This analysis was based on empirical data collected from university students who were majoring in biology education at Universitas Siliwangi Tasikmalaya. Data obtained from 32 questionnaires revealed differences among students based on their experiences. The descriptive statistical analysis showed 93,8% of the students liked the vertebrate zoology subject, 50% of the students recognized the content being learned, 18,8% of the students thought that the materials were abstract, and only 28,1% of the students realized the importance of the subject. Related to the teaching materials, 53,1% of the students stated that it was difficult to find references related to the competences, 65,6% of the students admitted that they needed to apply certain strategies to comprehend the materials, and 100 % of the students liked to get involved in the practical training in labs, but during the process, 81,3% of the students experienced hardship in doing some experiments. Thus, it could be concluded that the subject had not been well interpreted as a subject which can help construct the students' knowledge.

Keywords: development, materials, vertebrate zoology

Education is one of strategic areas in which human resources can be prepared to compete, either at a regional or local scale. Therefore, people keep improving components which can support better education, to seek for gaps between what is going to be achieved and what has been achieved by the students. Education in Indonesia is expected to be able to create humans who have capability to actualize their competence at schools from the elementary level until higher level of education. Besides, the education is also expected to provide information about what needs to be improved in the future in order to respond the upcoming challenges.

According to Yuwono (2005), university students tend to perceive learning as a product. As a result, they memorize concepts, theories and laws. This situation is proven by the test oriented learning which makes students get used to memorizing concepts. Similarly, Sahrudin (2014) argues that students do not construct their knowledge, but they are more likely to perform as a learning object. Suardi (2015) also states that learning is not an absorption process which occurs without active efforts from those who are involved in it. Habok and Nagy (2016) point out significant roles of an instructor in learning. The instructor will be always able to control classroom activities. This condition, however, is in contrast with the constructivism theory which states that knowledge can be more meaningful if it is connected to other body of knowledge or if it is implemented in daily life (Hodojo, 2005). This kind of knowledge, thus, should exist among learners (Krulik *et al.* 2003).

Santoso, (1999) argues that education in Indonesia has not met the expectation. Likewise, Hapsoro (2014) also adds that colleges and universities have not been able to produce independent graduates. Jalmo (2007) states this low quality of education is due to ineffective learning in the classroom. Most instructors are more likely to act as a lecturer rather than a

facilitator. Therefore, it is expected that colleges or universities can empower the education process so that all students are able to develop themselves and become graduates who serve as human resources with high quality (Sukidin, 2014). According to Permenristekdikti No 44/2015 on Standard of Process, an ideal education process has some characteristics; one of which states that learning must be contextual and students-centered (Article 10 sentence (2)a). Thus, learning process should be able to encourage students to dig more information about certain subjects by observing, asking, experimenting, processing data or information, presenting data or information, analyzing the data, reasoning, drawing conclusions, creating, and thinking at lower or higher level.

Galuh (2007) argues that contextual learning can make students' achievement more meaningful. The learning process takes place naturally in the form of students' experiences or activities. In this context, the students need to better interpret learning, understand its benefits, and learn how to accomplish the goals. The students have to realize that they are learning something useful for their life in the future. Thy need an assistance whom they can work with to guide and lead as well as manage their activities in the classroom.

Based on BSNP (2008), to explore students' ability, lecturers need to develop materials which suit the curriculum demands, goal characteristics, and problem-solving learning demands. Mulyasa (2014) points out that a learning material is one of the factors which influence students' learning achievement. Department of National Education (Depdiknas) (2008); Prastowo (2014) assert that a learning material contains information on a subject which is systematically arranged to be used by instructors in executing learning with stated objectives and implementation analysis. As a result, materials development need to be conducted by the instructors to support learning.

This study aimed to describe the results of needs analysis conducted before developing learning materials of vertebrate zoology subject. These results were expected to add more references of vertebrate zoology.

METHOD

There were 32 students participating in this study. They had enrolled and passed the vertebrate zoology subject in semester 6. Sample was chosen randomly through *simple random sampling* technique which produced 100 participants in the end. This study was a survey by collecting data through questionnaires to gather students' responses towards the learning process, especially seen from the aspect of utilizing learning materials after class. Then, collected data would be analyzed using the qualitative descriptive statistical analysis.

FINDINGS AND DISCUSSION

Results of the study were in the form of general description of needs analysis on zoology vertebrate materials development. This needs analysis was necessarily conducted as the starting point of improving the quality of learning. Data obtained from the questionnaires is presented by Figure 1.

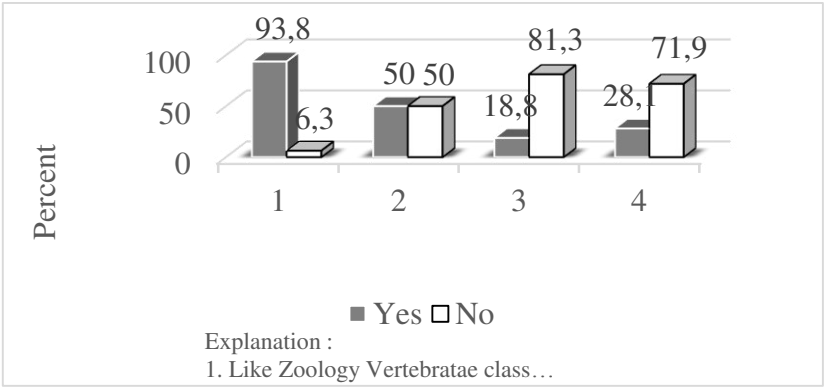

Figure 1. Students' Responses towards Vertebrate Zoology Subject

According to figure 1, the students basically had a great interest in joining the vertebrate zoology subject, but this interest was not fully supported by their knowledge on the course. Their understanding of the materials could be improved by providing the students with more comprehensive learning context.

Students' understanding of the subject materials which are mostly abstract was quite satisfying. Most of the students were able to distinguish concrete and abstract materials, 18,8% stated that this course contained abstract materials which require deep thinking and understanding unlike concrete materials which can be understood through senses. Therefore, learning by context could help the students understand the connection made between the materials content and real life situation. Hernawan (2015) supports this finding by stating that real life context provides more meaningful learning experiences. There were only 28,1 % of the students who realized the significance of this subject. The students had not fully understood learning. These initial constraints became reorientation of learning to improve not only the curriculum content but also pedagogical aspects. There are many variables that can be developed by every lecturer to improve the quality of learning. Figure 2 shows another students' response towards their needs on the course materials.

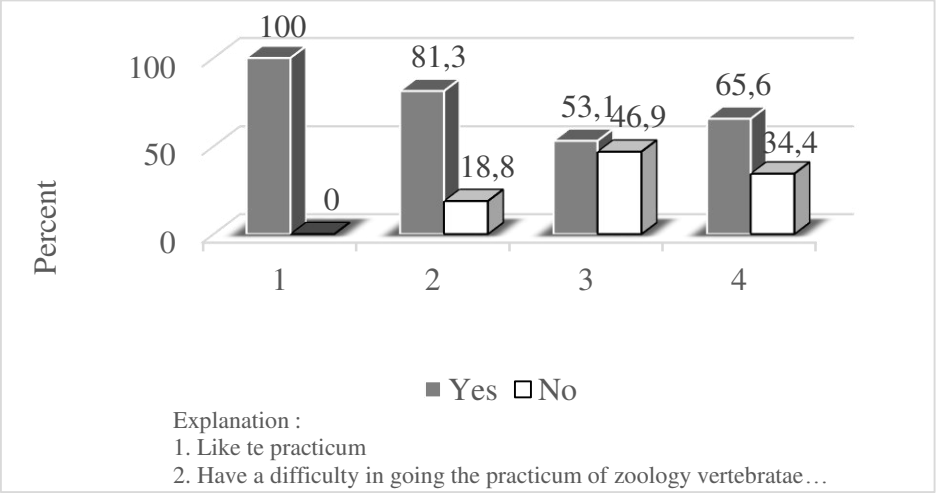

Figure 2 Students' Responses towards Course Materials

All of the students chose practicum as the most appropriate learning activity. This has proven by the fact that the students prefer contextual learning. Depdiknas (2003) argues that

contextual learning belongs to one of holistic educational processes which aim to assist students in understanding subject materials by relating them to their real life context. This kind of learning creates students who have flexible skills and knowledge which can be transformed from one circumstance to another.

One way learning cannot help students understand how to learn. According to Komalaningsih (2007), the students should not only do *hands-on activities* but also need to have *minds-on* experiences. However, there were still many students faced difficulties in practicum since they got used to receiving direct information from the lecturer. Thus, they often failed when faced with real life situation which requires skills.

One of the problems which caused the failure was that it was difficult to find references which supported learning competences. There were 53,1% of the students agreed to this. To fulfill their needs, it is necessary to make an easy access to books and literature which can assist them in learning. As a result, the quality of learning can gradually improve. Gagne and Briggs (1979) state the quality of learning was determined by various internal and external condition of learning.

External quality in AECT (1986) refers to learning resources. The six components of learning resources are messages, people, learning materials, tools, techniques, and environment. Among them, learning materials appear as the most dominant. Learning materials specify learning experiences in the form of structured learning activities which contain variation and result in effectiveness similar to an effectiveness of accomplishing learning goals. Therefore, it is very important for an instructor or a lecturer to have a competence to develop learning materials which suitable with learning requirements and students' needs so that the students can get involved in better learning environment.

According to Joni (1984), five functions of materials which are essential to learning are as follows: (1)to give teacher guidance in managing the learning process, (2) to provide complete material/tools for every learning activity, (3) to connect teacher and learners, (4) to be used independently by the learners to achieve standard competences, (5) to improve learning.

Good learning strategies can help students learn better. There were 65, 5% of the students felt that they needed some learning strategies which could help them get more learning experiences. National Academy of Science (1995) states the process of learning sciences must engage activities which can be done by the students. The students must be given an opportunity to develop their physical or sensory-motor experiences before upgrading their ability to understand abstract things. This, of course, opens a path for the instructor or the lecturer to promote learning by doing.

CONCLUSION

Learning materials are needed to support learning process in the classroom. Since the students were not used to exploring their ability to construct their own knowledge, it became necessary to develop the materials.

Suggestion

There should be a follow-up of this study in order to obtain broader description of vertebrate zoology materials which are suitable with the indicators set to achieve learning goals.

REFERENCES

AECT. 1986. *Educational Technology: A Glossary of Terms.* Washington: AEC

BSNP. 2014. Textbook Instrument. (online). *www.BSNP-Indonesia.org* accessed on February 20, 2015

Depdiknas. 2003. *Contextual Teaching and Learning.* Jakarta: Ditjen Didasmen. Direktorat Pendidikan Pertama (Directorate of Primary Schools).

Depdiknas. 2008. *Guidance to Learning Materials Development*. Jakarta: Department of National Education, Directorate General of Primary and Secondary Schools Management

Galuh, B.H. 2007. Contextual Teaching Learning. In Sri Redjeki & Cartono (Eds.). *Methods & Approaches in Science Learning.* (page 41-50). Bandung: Universitas Pendidikan Indonesia (Indonesia University of Education)

Gagne and Briggs, L.J. 1979. *Principles of Instructional Design.* New York: Holt Rinehart and Winston.

Habók and Nagy. 2016. In-service teachers' perceptions of project-based learning. *SpringerPlus*. DOI 10.1186/s40064-016-1725-4.

Hapsoro. 2014. *Challenges and Chances of Universities in Indonesia.* Orasi Ilmiah Wisuda STMIK Atmaluhur

Hernawan, A. H., Permasih, H., & Dewi, L. 2015. Materials Development. *Online).(http://file. upi. edu. c om).* Accessed on February 27

Hudojo, H. 2005. *Capita Selecta in Mathematics Learning.* Malang: Universitas Negeri Malang

Jalmo, T. 2007. Constructivism. In Sri Redjeki & Cartono (Eds.). *Methods & Approaches in Science Learning.* (page. 1-19). Bandung: Universitas Pendidikan Indonesia (Indonesia University of Education)

Joni, R.T. 1984. *Textbook Development.* Jakarta: Depdikbud. P2LPTK

Komalaningsih, S. 2007. Problem Based Learning. In Sri Redjeki & Cartono (Eds.). *Methods & Approaches in Science Learning.* (page 229-258). Bandung: Universitas Pendidikan Indonesia (Indonesia University of Education)

Kemenristekdikti. 2015. *Permenristekdikti No. 44 year 2015 on National Standard of Higher Education.* Jakarta: Kementrian Riset Teknologi dan Pendidikan Tinggi Republik Indonesia (Ministry of Research, Technology, and Higher Education)

Krulik, S., *et al. (*2003). *Teaching Mathematics in middle school. A practical guide.* Boston: Pearson Education Inc.

Mulyasa. 2014. *Development and Implementation in Curriculum 2013*. Bandung: Remaja Rosdakarya

Prastowo, A. 2014. *Creative Guides to Learning Materials Development*. Yogyakarta: Diva Press

Sahrudin. 2014. The Implementation of Discovery Learning Strategies to Improve Students' Skills ans Motivation in Mathematical Problem Solving. *Jurnal Pendidikan UNSIKA*. Vol. 2 (1) ISSN 2338-2996. (online) Accessed on September 15, 2015

Santoso. 1999. *Challenges in University Development in XXI Century.* Building a New Paradigm. Surabaya: Universitas Surabaya.

Suardi, M. 2015. *Teaching and Learning.* Deepublish

Sukidin, 2014. *University Existence in Globalization Era.* International Seminar Proceeding. Good Practices in Education Across Disciplines and Grade Levels

Yuwono, I. 2005. The Development of Grounded Mathematics Learning Model. Unpublished Dissertation. Surabaya: Graduate School of UNESA.

Using Flash Fiction to Promote ESL Students' Reading and Writing Achievement

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Abstract: Most ESL students still meet difficulties in applying writing and reading in their class activities despite the many efforts taken by educators. One way to overcome this academic predicament is by facilitating reading and writing classes in ESL using flash fiction. Flash fiction, which is characterized by its brief presentation and authentic contents, offers some advantages for ESL teachers to make use of it to increase students' reading and writing skills. This paper provides reviews of concepts that underlies the use of flash fiction in promoting students's reading proficiency and critical thinking, henceforth, spurring their own creation of imaginative works by modeling a very short structure and style elements in well-scaffolded activities.

Keyword: Flash fiction, reading, writing, ESL, upper intermediate students

Literature is considered valuable authetic material for it is not fashioned for the specific purpose of teaching a language (Collie & Slater, 1987: 3). Students have to cope with language intended for native speakers, thus, they gain additional familiarity with many different linguistic uses, forms, and conventions of the written mode: with irony, exposition, argument, narration, and so on (ibid: 4).

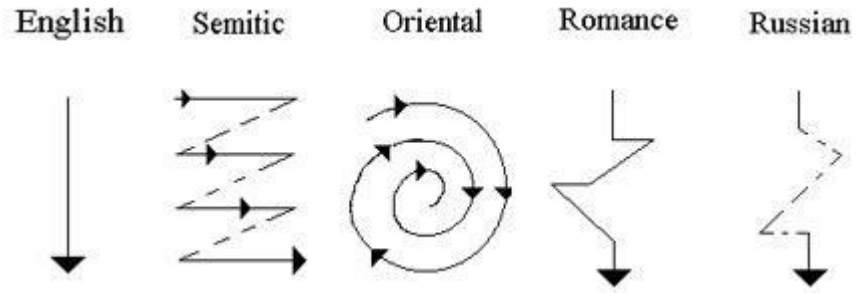
Leal, as quoted by Kweldju (2012: 347), claimed that characters in a book can assume almost the same potential for influencing the reader as real people. Hence, it is quite successful in dealing with students' intrinsic motivation in reading class due to their appeal to students' curiosity and motivation to finish reading. Such practices will generate with students' excitement and make them use their imaginative powers in ways which are helpful for the development of their communicative skills (Khatib & Nourzadeh, 2011: 260), which the traditional textbooks cannot do.

However, authentic texts used in beginner and intermediate level language classrooms are usually journalistic readings and/or short realia items such as advertisements and TV guides but not authentic literary texts (Sonmez, 2007). Traditional textbooks are still predicted upon a "one-size-fits-all" approach to language instruction and tie grammar competency and form to literary and expository texts; almost by default, resulting classroom instruction tends to be more teacher-centered, text driven, and content-based, where topics under discussion stand in direct relation to the grammatical dictates of a given chapter rather than futher communication (Alden, 2006: 246).

Although it is quite a success how literary texts engages students with its authentic charm mirroring life and the world (Alden, 2006; Alemi, 2011; Bobkina & Dominguez, 2014; Erkaya, 2005; Irene, 2015; McKay, 1982; Miller, 2003; Rahimi, 2014; Sonmez, 2007), very often the reading class is only for reading and discussion. However, the discussion using literature so far has induced the critical thinking which is an essential trigger for students' developing their thoughts into writing. Tung & Chang (2009: 291) assert that literature reading is a complex process that requires readers to recall, retrieve, and reflect on their prior experiences or memories to construct meaning of the text. Students' activities in reading, including "examining the text, the authors' purposes and style, and their own interpretations of the texts they are

reading" (Tankersley as quoted by Karimova, 2013: 451), act as a great source as pre-writing activities. This habit of mind bridges students' contrastive rhetoric patterns (Kaplan as quoted by Cahyono, 2001: 43), especially the ones with oriental pattern, to train their analysis.

Figure 1. Kaplan's rhetoric patterns



Nevertheless, "there is no doubt that writing is the most difficult skill for L2 learners to master" (Richards & Renandya, 2002: 303). Most students think literature is something that has to be written by some poets, artists, or people who have the calling or the soul to write a masterpiece. Thus, they do not have the confidence to write literary works. This mental block prevents them to create anything at all. The psychological barrier becomes heavier due to teachers' expectation to students' end result of a composition, regardless the process they have made in creating it. Unless students seen as creators of language –when they were allowed to focus on content and message, and when their own individual intrinsic motives were put at the center of learning (Brown, 2001: 335)– they will not start writing their own ideas.

On the other hand, Lee, as quoted by Sonmez (2007), claims that language learners are linguistically incapable of understanding literary texts until they reach the advanced level proficiency. In line with that, Alden (2006: 245) asserts that since students analyzing L2 literature are still language learners lacking L2 vocabularies, achieving higher levels of proficiency and in-depth comprehension of literature is more easily said than done. She emphasizes intermediate-level language students can describe and, as they progress, begin to make more complex statements, state opinions, and formulate hypotheses, but they cannot yet sustain communication at that level.

Nonetheless, findings indicate that beginner level foreign language learners can also benefit from reading authentic literary texts and that authetic texts have an impact on developing learner's communicative competence (Rice, Shanahan as quoted by Sonmez, 2007). Bernhardt (loc.cit.), provides evidence that grammar skills and linguistic ability accounts only for 30% of second language reading performance. Thus, "language development, which is attributable as one of the factors that affects second language writing" (Cahyono, 2001: 47), should not be a problem for students once they are exposed to literature since it contains original expressions of language which are used by and for native speakers and writers of the language.

Only in recent years educators have attempted to integrate reading and writing using literature in their classrooms (Temizkan, 2011; Da Silva, 2001; Adam & Babiker, 2015; Hiew, 2010; Ghazemi, 2011; Elhabiri, 2013; Berkner, 2004). One way to overcome this academic predicament is by integrating reading and writing classes in ESL using flash fiction. Flash fiction, which is characterized by its brief presentation and authentic contents, offers some advantages for ESL teachers to make use of it to increase students' reading and writing skills. Providing various flash fictions written by different authors believed to introduce the learners

to different writing styles; and this will, in turn, insight learners and encourage them to develop their own writing styles (op.cit.).

This paper provides reviews of concepts that underlies the use of flash fiction in promoting students's reading proficiency and, henceforth, "spurring their own creation of imaginative works" (McKay, 1992: 529) by modeling a very short structure and style elements in well-scaffolded activities.

REVIEW OF LITERATURE AND DISCUSSIONS

Stern, as quoted by Adam & Babiker (2015: 110), asserts that literature can be a rich and inspiring source for writing, as a model and as a subject matter. Students' works are often inspired by the latest writer they read and contemplate, whether they do it with the class or privately. They may firstly benchmark the writer's works, thus their own work will closely resemble the writers in terms of the theme, organization or style. Eventually students will find their own style of writing along with the gradual reading and writing habits. As a subject matter literature can be displayed by the students as the demonstration of their original thinking, interpretation or analysis all of which may have evolved from or have been inspired by the literary works they have read.

Kweldju (2012: 340) points out that the extensive reading course was taught to the students for: improving their English proficiency, helping them become enthusiastic readers, developing their character, and helping them become better citizens of Indonesia and fellow citizens of the world. Nonetheless, in ESL context, exposure to natural texts is scarce unless the school provides a lot of reading materials for outside classroom activities, especially reading for enjoyment (Mukminatien, 2012: 98). Flash fiction can be a powerful tool to brigde the scarcity of authentic exposure and enjoyment for reading to synchronize it with the academic purposes.

One of the important things that contribute to successful teaching of ESL is selecting texts for the classes. Students' need something livelier, something more authentic that will grab their attention instantly and stick to their mind longer, better than regular course textbooks. Flash fiction is a great choice that will seize students' attention very quickly and motivate them due to its brevity and simplicity. Thus, it encourages students' that they, too, have the ability to create a very short story like that. Not surprisingly, most students would rather try writing one-page flash than a twenty-five-page traditional story (Shapard, 2012: 48).

Flash Fiction: A Literary Work

Given the name flash fiction is indeed very short; shorter than short stories. Faulkner (2013) defined it as being a story under 1,000 words. It can be as short as 100-150 words for that matter. It can be as short as six words, like the short flash fiction often attributed to Hemingway: "For sale: baby shoes, never worn." (Gaffney, 2012).

Novels have dominated the world of literary fiction. So little attention given to works as brief as a flash fiction. However, great writers have been writing very short stories since long before novels. Petronius wrote short-shorts in ancient Rome, and Marie de France wrote them in medieval times (Shapard, 2012: 47). But in twentieth century, he continues, many writers, including Borges, Cortazar, Walser, Kafka, Buzzati, Calvino, Dinesen, and Kawabata, chose to return to very short works. Did they constitute a quiet renaissance of very short fiction that is only now, thanks to vast power of the Internet, flowering from Greenland to Indonesia with nanos, micros, suddens, and flashes (loc.cit.). Such evocative, fragmentary brevity makes this Twitter and Facebook era perfect for flash fiction (Faulkner, 2013).

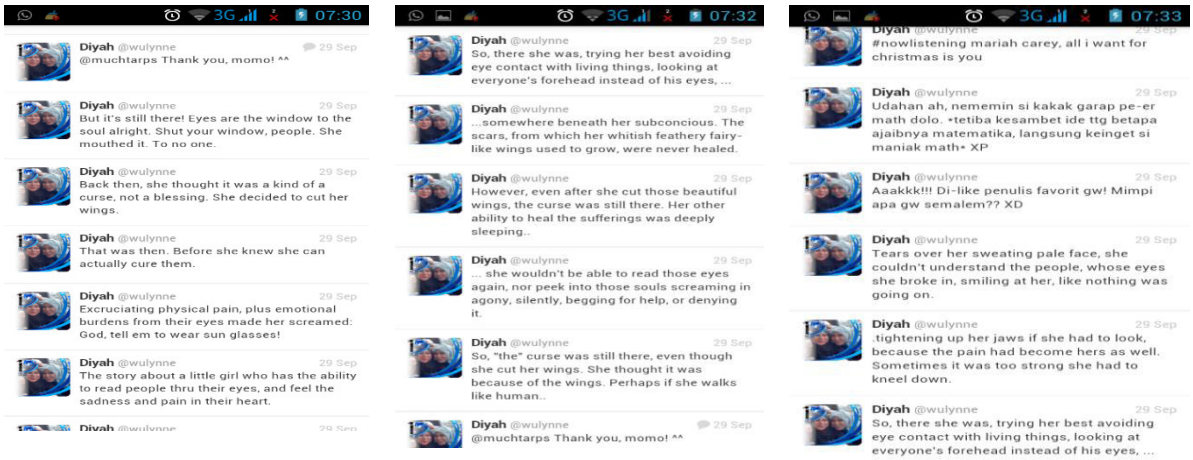


Figure 2. Twitter Flash Fiction, reading direction: bottom-up

Townsend (2015) stated that the tension in flash fiction between what is said and unsaid, and the stunning language that emerges from the form's roots in ancient fables and its kinship to poetry, these are the ineffable qualities that the students must be shown, not told.

The Advantages of Using Flash Fiction in Teaching Reading and Writing

Writing, as well as speaking, is highly needed in daily life. Students will need it for academic purposes, pragmatically. Learning both skills using flash fiction will give more benefits to students applying what they learn in reading it and try their best to create their own version. The skills they learn in flash fiction will be used throughout their lives: for academic essays and papers, and later for memos at work. They will use them to write love letters or notes to their sick grandmother. Good writing skills opens doors (Townsend, 2015).

Tompkins points out, as quoted by Adam & Babiker (2015: 110), that there are seven reasons for requiring the students to write stories and poetry: to foster artistic expressions, to explore the functions and value of writing, to stimulate imagination, to clarify thinking, to search for identity and to learn to read and write.

Generating ideas can be such a value that we can get from flash fiction. The tendency of the nowadays habit related to social media life –people tweeting, uploading daily status, writing simple things on Twitter, Facebook or Instagram almost everyday, including writers who often use the social media to help them blurt out sparks of ideas– can induce the trails of more ideas and stories. Even better, sharing it in public, viz. in social media, they get fast replies, retweet, and likes from their followers who have the same passion in the field. More responses mean more ideas and stories to build. It can also be an embryo of a longer story, even a novel. It all started in flashes of thoughts. Everything can be made stories in a flash.

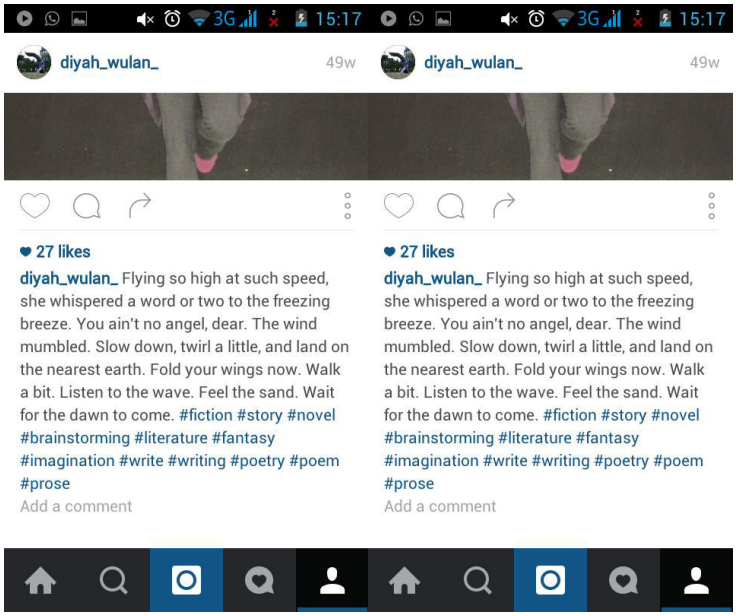


Figure 3. Instagram Flash Fiction (Wulandari, 2015)

Classroom Talk and Zone of Proximal Development

Basically, the idea of integrating reading and writing using flash fiction should lead to students' independently reading the short literary works and interdependently analyzing any inquiries, problems, or disagreements coming up from being intrigued by the fictions with their knowledgable peers. Anything they think of and feel while reading the writings can be the best sources of classroom talk which lead to students' critical thinking. Hence, teachers' roles as facilitators or mediators can work effectively if they acquire the arts of optimalizing students' zone of proximal development (ZPD), the area in which "students can solve problems under adult guidance or in collaboration with more capable peers" (Vygotsky, as quoted by Miller, 2003: 292). Discussions about the stories, for example, must lead to deeper and meaningful interpretation, reflection, and critical thinking of the students.

Donato and Brooks, as quoted by Alden (2006: 245), have called a meaningful connection of language goals and literature instruction which would require both the language acquisition and the literature specialists within one department to share their knowledge. However, they will need to skillfully deliver both to the students to optimalize the ZPD environment and eliminate students' anxiety about literature, reading, and writing. Therefore, teacher training in delivering literature in classrooms is highly required to make them naturally acquire the techniques in creating a positive and encouraging atmosphere for the students to analyze and develop their critical thinking (Millers, 2003: 313).

In recent years, writing instruction has shifted from focusing on the finished product to focus on the process that students use to organized and express their ideas (Tompkins, 2001). Similarly, the teacher's role has changed from assigning and evaluating writing to working with students through the process of writing. Bright, as quoted by Berkner (2004: 8) asserts that the old emphasis on product over process began to be critized by researchers, and professional writers began to speak out on their own creative writing process.

Linda's class, as studied by Miller (2003: 293) on how teacher-mediated literature discussion can create a zone of proximal development that shapes students' habit of mind, maybe an excellent example of classroom talk. Instead of delivering blatant and classic instructions to students, she chose to work with them. She equally treated her students as if they are her peers and shared her own problems in analyzing texts to her students, asking

genuine questions about things that puzzle her in the texts as a start-up. Desks in perfect circle, the singular role knowledge expert was changed into usual verbal behaviour: creating a "safe" atmosphere: emphaty, creative metaphors, collaboration.

Figure 4. An example of perfect circle, where the teacher plays an equal role and positioning

Stages in Teaching Flash Fiction for Reading and Writing

Basically, the ingredients of the writing process are rehearsal (or prewriting), drafting (or writing), and revision (Branscomb, 1986: 369). The discussion about flash fiction serves as the prewriting stage, the preparation for drafting. It shapes students' ZPD and critical thinking (Miller, 2003: 292; Tung & Chang, 2009: 291), thus students can listen to their own voice. It provides them with their own idea that waits to be written.

Prewriting stage can be done by having the students do some of the activities in the list (Brown, 2007: 404):

1. Reading a passage, poem or story
2. Skimming or scanning a passage
3. Brainstorming
4. Making lists or charts
5. Clustering or mind maps (building on one word using free association)
6. Posing thought provoking questions
7. Free writing

The next stages are the core of writing process, namely drafting and revision. Brown (2007: 404) outlines the strategies and skills pertaining to the process:

1. Getting started: letting ideas flow smoothly from mind to written word.
2. Optimal monitoring of one's writing (vocabulary, punctuation, editing and grammar are not important at this stage).
3. Peer reviewing: being open to comments and suggestions from classmates.
4. Using instructor's feedback: teacher guides student for further revision.
5. Editing: for grammatical errors.
6. Read aloud – Students read their virtually complete final draft to classmates and make corrections on cohesion, syntax, vocabulary, punctuation.
7. Proofreading – have others read work to double check for publishing quality.

Nonetheless, teachers can always improvise when applying them due to the uniqueness of each of their classes. It is just the messiness of the creative process that demands the frequent intervention of a teacher –to read, to listen, to encourage, to question, sometimes just to talk (Branscomb, 1986: 369). The sense of belonging to their own voice is essential for students so

that they continue their writing process (Brown, 2007: 396). Therefore, it is highly suggested that teachers not discourage students by "assigning writing infrequently, responding only by red-pencilling, appropriating students' final drafts for his own, noting in red what students' should have done (rather than reacting to what students actually did), and unwittingly causing them to drop their commitment to their writing" (op.cit.).

Instead of discouraging students by doing so, teachers can apply collaborative writing with students, proposed by Donald Graves (as quoted by Berkner, 2004: 13). One of Graves' many illustrations of the process is very inspiring (loc.cit.):

Leo Tolstoy, in his journal kept for the school he ran at Yasnaya Polyana, tells of a day when he asked the children to take out their papers to write. To his surprise the children said, "We're sick of writing, it's your turn." Tolstoy thought for a minute, and then decided the children might have something in their request. He sat down at his desk and asked, "Well, what should I write about?" The children said, "Write about a boy who steals." Excitedly the children gathered round his desk while the don of Russian intelligensia, admired writer of The Cossacks, began to compose. Immediately, these peasant children corrected him saying, "No, a boy wouldn't do this; he'd do that." "You know," said Tolstoy, "they were right." Tolstoy was so astonished at the children's insights that he wrote his memorable essay, "Are We to Teach the Peasant Children to Write, or Are They to Teach Us?"

Collaborative writing can be done by switching the role of writer with the students as the main writers, or thinkers. Sometimes the teacher should also show his real-time drafting process, so that students see his whole steps and thinking process while doing the writing. A conference process like this, or vice versa, allows students to freely ask whatever they are curious about. The conference teacher, who works orally, shoulder to shoulder with the students, can watch the development of each writer over a long period of time (Branscomb, 1986: 370).

It does not matter which stages teachers choose to use, combine, and improvise as long as they pay a careful attention on the function and impact to students' passion of writing. Being a creative and attentive teacher is how to be a facilitator who quickly adjust to any situations regarding the current dynamic condition of the students, (indoor/outdoor) classrooms, materials, anything related to his orchestration of the lesson.

Challenges in Teaching Flash Fiction for Reading and Writing

Jaffar (2004) stated that non-critical readers only see facts, but good readers bring their own understanding to the texts and add to their dimensions. With beginner and intermediate students, teachers must trigger students' critical thinking so that they figure out the implied meaning in the stories, "give them questions that teach" (Graves as quoted by Branscomb, 1986). If students are consistently exposed to think critically while reading, eventually they will pick up the habit. This will enhance students' zone of proximal development (ZPD) (Vygotsky as quoted by Miller, 2003). Once they pick up the habit of mind, everything they can think of, they can create it. Creativity has no limits.

Running out of ideas can be frustrating for students, especially when it comes to writing. Randomly choosing dictions from paragraphs in books, newspaper, or dictionary, and then use them to create some paragraphs of their own by connecting those dictions might help them spare the dryness of ideas. Once the connection electrified, more stories spring up. Hence, they will keep digging their own wells, unstoppable.

Peer review is an established strategy for improving the quality of students' writing (Baker, 2016). However, it can be quite a challenge if teachers do not arrange the timing of the peer review, a structured feedback form, and student writers' revisions after engaging in peer

review. These strategies force students to begin writing earlier in the semester, help the students offer formative feedback to their peers, and encourage students to substantially revise their drafts before submitting the final paper. This study reveals the importance of assessing the peer-review process.

Selecting Flash Fiction

According Alemi (2011: 178) there are several criteria that should be weighed to select literary texts for students: language proficiency, time availability, cultural competence, the brevity of texts, and personal involvement.

In line with that, Irene (2015: 76) points out factors to consider when selecting literary texts: age of students, gender, educational lives, social background, literary background, and the richness and meaningfulness of the texts for the students.

Ghasemi (2011: 267) asserts that almost all modern short stories have the following unique characteristics which make themespecially suitable to be used in reading comprehension classes: universality, non-triviality, personal relevance, variety, interest, economy and suggestive power, ambiguity; moreover each learner's interpretation has validity and an almost infinite fund of interactive discussion is guaranteed.

Whichever flash fiction teachers decide to choose, the shortest or the longer ones, it is important that they realize that the texts is not the ultimate factor to gain the objectives of the lesson. They need to keep in mind that classroom talk, ZPD, and other resources are of the same importance.

A Sample of a Lesson Plan Using Flash Fiction

This section presents a sample of lesson plan using flash fiction that has been applied in a small ESL classes of upper intermediate students at Putra Indonesia English Course Malang. Other lesson plans with different materials have also been applied in beginner level students where students' success in creating very short fiction varied. This technique has also been applied to a non ESL reading and writing class at Forum Lingkar Pena (FLP) Malang (Malang Writing Forum). Their progress are quite satisfying due to the frequent reading and writing practices using flash fiction. Students' are to be encouraged that they will be able to write and publish their own flash fiction collection by the end of the semester. Some students have achieved awards from national writing competitions due to their progress while learning reading and writing using this technique.

The following is the sample lesson plan that can be applied in upper intermediate ESL classes.

A. Pre-reading activity

1. Write the six word flash fiction: "For sale: baby shoes, never worn."
2. Ask students to copy the story and consider whether it is a story or not. Once they gain ideas about it, teachers can guide them by asking questions:

a. What does a story need in order to be a story?
b. What questions does this story leave you with?
c. What do you think is happening that is not written in this story?
d. Is the amount of the unwritten things interesting?
e. Do you think it is harder to write a short short story like this one or a longer work, like a novel? Why?

B. Pre-writing activity 1

Begin by showing students some examples of classroom literary classic summed up in six words like (Brown & Schulten, 2013, with adaptation):
Evil step mother makes miserable life. *"Snow White"*
Kids sneaks around, get married, die. *"Romeo and Juliet"*
Grow, grow longer, beautiful golden hair! *"Rapunzel"*

C. Whilst- reading activites
   1. Ask students to read longer flash fiction: *Dr. Jekyll and Mr. Hyde* (Harris, 2006), see Appendix 1 for the text.
   2. Have students to meet in pairs or small groups to futher discussion. List of questions they might discuss (Brown & Schulten, 2013):
      a. What do they know about the plot, characters, setting, and theme of the story?
      b. What questions does the text raise?
      c. What is unwritten?
      d. What literary devices do they notice?
      e. What individual words or phrases jump out? What denotations or connotations are important to note about individual words?
      f. How complete is the story? Why?
   3. When students are finished, ask groups to share observations about the stories and follow up with these questions:
      a. How do you read them differently from the way you read a longer work?
      b. What do they give you that a longer work does not?

D. Pre-writing activity 2
   Ask students questions to prepare them to rewrite/rephrase the story:
   1. What would you if you were in Dr. Jekyll's position?
   2. What would happen if Mr. Hyde didn't die?
   3. Can you create a different ending for the story? For example?

E. While-writing activity
   1. Give the students writing prompts (Shapard as quoted by Giddings, n.d.):
      a. Think of a character, a person that's not you, preferably unlike you (in age or gender or other ways).
      b. Jot awhile (2-3 minutes or more).
      c. Now answer these questions about the person:
      d. What does she or he want more than anything in the world? (Make it something specific, not abstract.) Again, jot awhile.
      e. Now (I regret to do this to you, or rather the character) I'm sorry to say that the character can't have it, it's simply not possible (whatever she or he wanted more than anything); the question is, Why not? Jot awhile.
      f. The last question may seem whimsical, in turning the tables, but it's not; let's say the character does get what she or he wanted after all, even though it was "impossible"–the question is, how did, or could, the character make it happen?"
   2. Ask students to proofread their peers' works and give commentary to their peers about the works.
   3. Ask students to edit and reedit their works.

F. Post-writing activity
   1. Ask students to have their own portfolio of their flash fiction collection during the whole semester and are encouraged to publish it in the end of the semester to become professional flash fiction writers.
   2. Give students homework, ask them to:
      a. Read online Grant Faulkner's article: *Going Long, Going Short*.

b. Read online David Gaffney's article: *Stories in the Pocket: How to Write Flash Fiction*
c. Find online resources that provide flash fiction link to read, write, and perhaps publish, too.
d. Find one flash fiction that you like the most and read it on the next class.

CONCLUSION

There has been a lot of techniques of teaching ESL. Burhans, as quoted by Branscomb (1986: 371), asserts that as writing teachers, we've tried everything the current traditional paradigm has to offer: teaching grammar, teaching literary analysis, teaching spelling, teaching the thesis statement, teaching phonics and CVC syllables, teaching the fixed methods of paragraph development, teaching the five paragraph theme. Teaching language through literature has been widely acknowledged and applied for many years, but it works well especially with language arts and native classes. As for ESL classes, many students still have to struggle with their skills. Using flash fiction for ESL classes is more propitious for the students in developing their skills, especially reading and writing, due to its nature of simplicity, brevity, and autheticity of the content. It motivates them to create very short stories, and later on boosts their confidence in developing more imaginative and longer ones.

REFERENCES

Alden, G.H. 2006. Connecting Language to Content: Second Language Literature Instruction at the Intermediate Level. *Foreign Language Annals* 39 (2): 244-254.

Alemi, M. 2011. The Use of Literary Works in an EFL Class. *Theory and Practice in Language Studies*. 1(2): 177-180

Baker, K.M. 2016. Peer Review as a Strategy for Improving Students' Writing Process. *Teaching Sociology*.

Berkner, G. 2004. *Write on: Improving Story Writing Skills in a Grade Three Classroom*. Faculty of Education Lethbridge, Alberta.

Branscomb, H.E. 1986. Donald Graves' Writing: Teachers and Children at Work: a Review Essay. *Journal of Teaching Writing*. 363-371. Retrieved January 28. 2017 from https://journals.iupui.edu/index.php/teachingwriting/article/viewFile/811/783

Brown, H.D. 2007. *Teaching by Principles*: *An Interactive Approach to Language Pedagogy*. (3rd ed.) New York: Longman.

Brown, A. C., & Schulten, K. 2013. *Short and Sweet: Reading and Writing Short Fiction*. Retrieved August 30, 2016, from http://learning.blogs.nytimes.com/2013/10/03/short-and-sweet-reading-and-writing-flash-fiction/?_r=0

Cahyono, B.Y. 2001. Research Studies in Second Language Writing and in Contrastive Rhetoric. *K@Ta* 3(1): 39-52.

Collie, J., Slater, S. 1987. *Literature in Language Classroom: A Resource Book of Ideas and Activities*. Cambridge: Cambridge University Press.

Da Silva, R.B. 2001. Using Literary Texts in the ESL Classroom. *R. Ci. Humanas* 1(2): 171-178

Erkaya, O.R. 2005. Benefits of Using Short Stories in the EFL Context. *Asian EFL Journal* 8.

Faulkner, G. 2013. *Going Long, Going Short*. Retrieved August 30, 2016, from http://www.opinionator.blogs.nytimes.com/2013/09/30/going-long-going-short/

Gaffney, D. 2012. *Stories in Your Pocket: How to Write Flash Fiction*. Retrieved October 31, 2016, from https://www.theguardian.com/books/2012/may/14/how-to-write-flash-fiction

Giddings, M. n.d. *The Most Human Things: An Interview with Robert Shapard*. Retrieved October 31, 2016 from http://www.smokelong.com/robertshapardeditorinterview/

Ghasemi, P. 2011. Teaching the Short Story to Improve L2 Reading and Writing Skills: Approaches and Strategies. *International Journal of Arts and Sciences* 4(18): 263-273.

Harris, M. 2006. *New Opportunities: Education for Life – Upper Intermediate Students' Book*. England. Pearson Longman.

Havens. A. 2014. *Better Writing in a Flash: An ESL Flash Fiction Reading and Writing Course*. Oregon. University of Oregon.

Hiew. W. 2010. The Effectiveness of Using Literature Response Journal to Improve Students' Writing Fluency. *Researchers World Journal of Arts Science & Commerce* 1(1): 27-39.

Jaffar, S. 2004. *Teaching Critical Thinking through Literature*. Journal of Research Volume 5: 15-26.

Karimova, D. 2013. The Use of Literary Texts and Questioning to Examine First-Year Central Asian Students' Critical Thinking Skills. *Arab World English Journal* 4(4): 448-461.

Khatib, M. & Nourzadeh, S. 2011. Some Recommendations for Integrating Literature into EFL/ESL Classrooms. *International Journal of English Linguistics* 1(2): 258-263.

Kweldju, S. 2012. Extensive Reading for English Proficiency Improvement, Character Development, and Peace Education. *Best Practices in the Teaching of English*: 339-348. Malang: Malang State University Press.

McKay, S. 1982. Literature in ESL Classroom. *TESOL Quarterly*. 16(4): 529-536.

Miller, S.M. 2003. How Literature Discussion Shapes Thinking. in A. Kozulin, B. Gindis, V. Ageyev, & S.M. Miller (Eds.) *Vygotskys Educational Theory in Cultural Context* (289-316). New York, NY: Cambridge University Press.

Mukminatien, N. 2012. Teaching ESL Learners to Write an Argumentative Essay by Adopting Genre-Literacy Approach. *Best Practices in the Teaching of English:* 93-104. Malang: Malang State University Press.

Richards, J.C., & Renandya, W.A. (Eds). 2002. *Methodology in Language Teaching: an Anthology of Current Practice*. Cambridge: Cambridge Press.

Shapard, R. 2012. The Remarkable Reinvention of Very Short Fiction. *World Literature Today* 86(5): 46-49.

Sonmez, S. 2007. An Overview of the Studies on the Use of Authetic Texts in Language Classrooms. *Third International Online Conference on Second and Foreign Language Teaching and Research.*

Townsend. V. 2015 . *Teaching Flash Fiction to Developing Writers: Insight from Three Students and Their Professor (Part One), What Short Short Stories Tell Us about Being Human.*. Retrieved September 1, 2016, from http://www.smokelong.com/teaching-flash-fiction-to-developing-writers-insights-and-stories-from-three-students-and-their-professor-part-one

Tung, C.A., & Chang, S.Y. 2009. Developing Critical Thinking through Literature Reading. *Feng Chia Journal of Humanities and Social Sciences, 19,* 287-317.

Indonesian Secondary Students' Perceptions: Web-Based and Non Web-Based Media in English Learning

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Abstract: Integrating learning with the technology is as the requirement in this era because students must follow the development of the technology. Thus, students have options to use the technology either web-based or non-web based media in their English learning activities to support them to achieve their learning goals. This research uses descriptive quantitative design. This was conducted on third grade of Secondary School of Blitar, Indonesia. This research is to report research findings on what the type of the technology are used by students, why they use it, how they use it, what the strength and the weakness use that technology for English learning, how the technology affects their achievements in English learning and on what their perceptions apply technology in English learning. Suggestions are proposed for learners and teachers toward the use of technology in English learning.

Keywords: technology, students' perceptions, English learning

Nowadays, the use of technology is essential part in life. In education part, technology can be integrated as media (Pathak, 2007). The technology should be combined among multimedia applications and network based media (Chun and Plass, 2000). Thus it will be the advance technology (video conferecning).

Some research had been conducted to analyze the integration of technology in learning. Baytak, Tarman, &Ayas (2011) reveal that student' proficiency level increases through integrating the learning with the technology. They also find that students motivate to learn by using technology. Students are actively interacting and discussing during the learning activity through the use of the technology because they become less threatening and more motivating (Jarrel, 2005; Jepson, 2005). Meskill and Ranglova (2000) also find that the technology makes learning interesting, enjoyable, and interactive. In summary, the use of the technology for learning activity develops students' motivation, their social interactions, English skill and components. As non web based technology, the internet provides rich of sources easily and quickly in searching information (Tutkun, 2011). Albert (2009) reveals that the technology solves the communication problem during the learning. He proves that students are actively interacting through the use of online media because they are not in face to face, thus they feel less anxiety.

Technology is accessible for the learning material. Wright et al (2013) prove that students are choosing e-book rather than paper based book. Although, there are no diversities in comprehension, however e-book is more simple and easy to be used whenever they read the learning material to search particular topic. Barwani and Ibrahim (2010) investigate EFL advance students prefer to use online or conventional media. They find that students mostly prefer to use online media to obtain the learning materials.

Based on description above, a numbers of research had ever been conducted to approve the effectiveness of the technology for learning. However, they were conducted in the overseas context, not for Indonesian. That is why, this research is aiming at finding on reporting the use of the technology (web and non-web based technology) in learning and students' attitudes

toward both technologies for Indonesian secondary students context. Thus, the researchers compose six research questions, as follows:

1. What are the types of the technology used by students?
2. Why do they use it?
3. How do they use it?
4. What are the strength and the weakness using the technology for English learning?
5. How does the technology affect their achievements in English learning and on what their perceptions apply technology in English learning?
6. What are students' attitudes toward the use of technology in their English learning?

METHOD

The participants involved in this action research study consisted of 40 eighth grade students. There were 19 boys and 21 girls involved with this action research. The descriptive quantitative method was employed in this research. There were three categories of questionnaire within. First was used to mention the various types of media used by students. Second was to explore students' responses on how they used both technology (web and non-web based technology). The third was about examining students' perceptions toward the use of technology. It consisted of five questions which were developed according to the Likert Scale

FINDINGS AND DISCUSSIONS

What the Type of the Technology are Used by Students in Their Learning Activity

There are two types of technologies used by students in their learning activity. Those are non-web and web-based technology. From 40 students of secondary school in Blitar, all of them prefer to use computer as non web-based technology. Meanwhile for web-based technology, they prefer website.

Why Students Use Technology in Learning

For non web-based technology, all of students prefer to use computer. By using computer in learning, they access web-based technology and watch video which provides them with English subtitle. Some argue that watching music and film in English in their laptop help them to comprehend new vocabulary and how pronoun it well (respondents 9, 6, 15, and 20). These affect in their English proficiency. One of the students said "I am very needing to use laptop because it saves all my data and I can write everything as notes in my laptop if I am doing a learning " (respondent 2). Another student raises a response "laptop helps me to access the internet and I have big screen laptop, so my accessing screen is clearer to be read" (respondent 14). That is why, those can be concluded that all students prefer laptop as non web based media.

For web-based technology, all students prefer to use website. They argue that website makes them easier to obtain a material of learning, to understand a material, to access it freely and easily. Website provides them with variations of materials which relates with their English learning. One of students comments "website provides me more information for my learning, so I can access it and compare among those material" (respondent 22). This activity improves student critical thinking skill. They also will prepare everything else such as preparing on internet access, their laptop, checking their gadget, their lesson. Respondent 25 gives comment "I need more preparation, if I learn in class with my laptop". Although, it looks complicated

ways, those activities will help students to arrange their learning time schedule in well preparation.

Both web and non web media as the technology improve students' motivation and interest to learn English. Thus, they enjoy and enthusiast to attend the learning especially in classroom. By following the development of technology for their English learning, they improve their learning ability for their future. As Chun and Plass (2000) state that second language acquisition must be relevant with the development of technology. Integrating technology in classroom will make rich learning style and also encourage collaborating among them in learning. Meskill and Ranglova (2000) point out that technology makes students to be interactive as they collaborate and communicate within. With technology, students will stay engage and will easily and quickly access the most update information for their learning material. Technology also help them to have digital book (e-book), thus they do not have to bring lot of book for their learning. Park and Kim (2011) argue that reading through online media is easily accessed and comprehended.

How They Use Technology

Non-web based technology generally is used to edit, review and present material. In this case, students prefer computer or laptop. As audio-visual media, computer or laptop facilitates students with complex software. By using computer, they write, review, edit and finalize any materials in their learning, also chat among students because computer can be installed with particular software for a chatting activity. One of the students argues "I write my homework with my laptop, so it is easy to correct and rewrite again if it has mistake" (respondent 30). Another student adds "I use laptop everyday for writing, editing my picture, presenting and others" (respondent 36). If they are instructed by teachers to present a material, they are easily to do it by using laptop because they already saved their materials in their laptop.

Web-based technology generally is used to search a material. All students prefer to use website. It is because they can easily to search their material for their learning. This can be done by connecting internet data with computer or laptop. Then, they can search any materials from their internet browser and direct them into particular website. Therefore, students are actively and easily to fulfill their learning purposes. One of students comments "I access internet for my learning so I get many sources data" (respondents 38). A teacher only asks to give students short explanation and some exercises. After that, students elaborate more its material by accessing in website. As students-center learning, the applying of technology is effective way to make students easier in English learning. Student gives a respond "my English teacher only gives instruction to learn certain material, but she does not explain more about it" (respondent 39). This makes learner- center style in learning. It is because students are demanded to explore their learning more by finding their learning material in website. Another student claims "I actively learn by using internet especially to access a website for my learning sources" (respondent 40).

Teacher must facilitate teaching and learning process to achieve students learning goal. Garthwait and Weller (2005) argue that teacher must provide clear instruction and brief explanation to trigger students' willingness in learning. Thus, students are more motivated to learn by the use of technology. The most important part is that students will be autonomous because they know how make decisions in learning during discussion among them and they are actively to find the learning material through technology as students-center learning (Nunan, 1991:105).

What the Strengths and the Weaknesses Use the Technology for English Learning

Although students use both types of technologies, both have strengths and weaknesses. Strengths of the technology based on interviewing of students, they mostly agree that both media will improve their English. One of the students argues "technology can improve my new English vocabulary by accessing the learning material in website" (respondent 33). Another student adds "technology can increase my interesting in learning" (respondent 11). Some also claim that technology helps them to search the learning easily (respondents 17, 20, and 27). One of the students points out "technology can help me to chat with others students to discuss the learning material" (respondent 6). Therefore, technology affects positively for their English. For the weakness of the technology in learning, one of the students points out "I spend more time to use it whenever their teacher gives them assignment to search material" (respondent 8). Another student claims "I spend much money in using technology for their learning, for example if I have some problems with their laptop or computer; I have to bring their laptop to the reparation center and i must buy some internet quota to access website" (respondent 18). Some also state that the use of technology makes them addicted to use it every day, it is because they also play game in their laptop for refreshing after learning (respondent 25, 30, 36).

How the Technology Affects Their Achievements in English Learning

Technology affects students' achievement in learning. Web and non web based as the technology in learning take important roles to support students in learning, as the majority of students are familiar to employ both technologies. Student can access all information that they need through technology. There are some ways that are summarized from interviewing of students on how technology affects students' achievements in English learning.

1. Communication way, students are most actively engaged with technology to discuss particular material for their learning among them. This engagement can be done by accessing the internet and particular chatting software, as one of students answers "technology can help me to chat with others students to discuss the learning material" (respondent 6).
2. Presentation way, usually teacher actively to present and explain the learning material. As one of students proves "I use laptop everyday for writing, editing my picture, presenting and others" (respondent 36). However in these recent years, students are actively to search and elaborate more about the learning material. It is because the can compare many sources from the internet then presenting by using particular application in their laptop and OHP.
3. Sources way, some students feel so helpful by reading e-book, because they do not need to bring many books in their bags. This way enhances students' creativity to make their own notes as digital note in their laptop. Thus, they will use it every day effectively and efficiently because if they had mistakes in their notes, they can just rewrite without doodling the mistake parts. It is different with book note. Students also can easily access out resources for their learning. one of students argues "I actively learn by using internet to access my learning sources" (respondent 40).
4. Learning way, technology increases students' willingness in learning because they feel enthusiastic to learn. One of the students states "technology can increase my interesting in learning" (respondent 11). This makes learning will be learner – center. Students are promoted to elaborate and explore more for learning activity.
5. Responsibility way, students in learning must prepare everything else such as their laptop, learning material, OHP for presentation, etc. those preparations make students responsible for their time on how students manage between preparation time and learning time.

Respondent 25 comments "I need more preparation, if I learn then presenting in class with my laptop". Students also will be responsible to keep safety all the learning gadgets.

Students perceptions toward the Use of Technology

Students' perceptions toward the use of technology will be presented in the table below.

Table 1. Students' Perception toward the Use of Technology (N = 40)

Perceptions toward Learning English through the use of media	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Second language classroom should have various types of technology.	15 (37.5%)	17 (42.5%)	7 (17.5%)	7 (17.5%)	1 (2.5%)
Language learners should employ technology in their classrooms	7 (17.5%)	19 (47.5%)	2 (5%)	12 (30%)	0
learners will learn better if they use technology in their classrooms	17 (42.5%)	13 (32.5%)	8 (20%)	2 (5%)	0
Learning English Language Skills (Listening, Speaking, Reading, and Writing) will be effective with the use of technology	29 (72.5%)	10 (25%)	1(2.5%)	0	0
Learning English Language Components (Grammar, Vocabulary, and Pronunciation) will be effective with the use of technology	21 (52.5%)	15 (37.5%)	4 (10%)	0	0

42.5% of students agree that learning process must employ various types of technology. Thus, they (47.5%) also agree to use technology within. 32.5% of students also feel better to use technology to improve their English. they (72.5%) also learn better and effective through the use of technology to enhance their English skills and 52.5% of students agree that technology also help them to improve their English in terms of English components.

This is interesting to note that most of the students agree to use technology in their learning activities. Those integrations are commonly used in nowadays to follow the development of technology. Hence, the students will not be left behind by developing of technology. Classroom activity must be prepared well to support the need of learning through providing the technology. This makes students easily and happily to learn within because most f them believe that by implementing technology in classroom makes them to learn better. Technology also provides students with audio-visual way. It means that students can learn listening, writing, reading, and speaking skill through technology. It is proved by many students agree to employ technology with their learning to enhance their English skills. In addition, technology is very useful and potential to develop students' ability for English component. This is proved by many students strongly agree and believe to employ technology to improve their English components.

In summarizing, students have positive attitude toward the use of technology in learning activity. Technology has to employ in various types. Through the use of technology, students also enhance their English skills and components. Miner (2004) argue that technology improve students motivation and assist them in learning. Therefore, students learn second language

better through the use of technology. It is because they are not in face –to-face in learning, these decreases the students' anxiety during learning (Jarrel, 2005; Jepson, 2005). Technology is great potentially to improve English students' proficiency (Fukushima, 2006).

CONCLUSION AND SUGGESTION

Technology is part of digital era, nowadays. It is very useful and potential to be integrated into learning activity. Both web and non web based technology are bringing students to improve their English skill. This is because students use the technology every day in their learning. However, technology itself has some weakness for students in terms of technical problems, spending much money to repair it if it gets problems, addicting to use technology everyday either for learning or refreshing such as playing game and watching.

The suggestions are proposed for the students. Teacher and/ or parents in home have to manage and control their students to use technology. In school, when the teacher applies the technology, she has to manage their time in teaching to avoid students' addiction to use technology whether they use for long time. This managing should be prepared well in lesson plan and other teaching instruments. In home, parents must control their children to use technology such as giving limitation to access the internet because some sites within internet are not appropriate for learning. Parents also have to limit the time for their children to use technology. They must be given explanations that life is better if they interact in real life society.

Regarding the technical problems, students must keep saving their technology after using it. This can be done by limiting time accessing to avoid the technical problem because if the laptop or others technology are used for long time, their machine will easily damage. Of course, it also spends money to repair **it.**

REFERENCES

Alberth. 2009. How effective are technology enhanced teaching techniques in the EFL classroom? Paper presented at the 56th TEFLIN International Conference, Malang.

Amer, A., Al Barwani, T., & Ibrahim, M. 2010. Student teachers' perceived use of online reading strategies. International Journal of Education & Development using Information & Communication Technology, vol. 6 no.4

Baytak, A., Tarman, B., & Ayas, C. 2011. Experiencing technology integration in education: children's perceptions. International Electronic Journal of Elementary Education, vol. 3 no. 2, pp. 139-151.

Chun, D.M. & Plass, J. L. 2000. Networked Multimedia Environments for Second Language acquisition. In M. Warschauer & R. Kern (Eds.), Network-based Language Teaching: Concepts and Practice (pp. 151- 170). Cambridge: Cambridge University Press.

Courduff, J. 2011. One size never fits all: Tech integration for special needs. Learning & Leading With Technology, vol. 38 no. 8, pp. 16-19.

Garthwait, A. & Weller, H.G. 2005. A Year in the Life: Two Seventh Grade Teachers Implement One-to One Computing. Journal of Research on Technology in Education, vol. 37, pp 361-377.

Fukushima, T. 2006. A student-designed grammar quiz on the web: A constructive mode of grammar instruction. Educational Media International, vol. 43, no. 1, pp 75-85.

Jarrel, D. 2005. The motivational power of internet chat. RELC Journal, vol. 36, no. 1, pp 59-72.

Jepson, K. 2005. Conversation and negotiated interaction in text and voice chat rooms. Language Learning and Technology, vol. 9, no.3, pp. 79-98.

Meskill, C., & Ranglova, K. 2000. Sociocollaborative Language Learning in Bulgaria. In M. Warschauer & R. Kern (Eds.), Network-based Language Teaching: Concepts and Practice (pp. 20-40). Cambridge: Cambridge University Press.

Miner, T. 2004. Using technology to enhance learning: Instructor- or Student-Moderated Discussion Boards: Which are more effective?. Retrieved from http://www.cccone.org/scholars/0405/TomMiner_final_report.pdf, accessed on August, 27th 2016

Nunan, D. 1991. The Learner-centered Curriculum. Cambridge: Cambridge University Press.

Pathak, A. 2007. Putting the Genie Back into the Bottle: An Agenda for the Future. In M. K. Kabilan & M.E. Vethamani (Eds.), Internet and the English Language Classroom (pp. 1-30). Petaling Jaya, Malaysia: Sasbadi Sdn Bhd.

Park, H.R., & Kim, D. 2011. Reading-strategy use by English as a second language learners in online reading tasks, Computers & Education, vol. 57, pp. 2156–2166.

Tutkun, O. 2011. Internet access, use and sharing levels among students during the teaching learning process.The Turkish Online Journal of Educational Technology, vol. 10, no. 3

Wright, S., Fugett, A., & Caputa, F. 2013. Using E-readers and Internet resources to support comprehension. Educational Technology & Society, vol.16, no.1, pp. 367–379.

Self Actualization for High Schoool Student through Doodle Applicated on Notebook

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Abstract: Notebook is something that cannot be separated from a student. An attractive notebook can boost the enthusiasm of students to open it again. In addition to motivating students to re-read his notes, students also honed to be more creative. Drawing these doodles are enhancing the students' creativity as well as their confidence. Doodle drawing could be interpreted as to decorate with the aim of beautifying a notebook which we call attractive notebook. By drawing doodles, students are trained to be creative, focus, and skilled. It is also developing their potentials. Increased confidence will lead the students to dig up potential and capabilities within them. Self-actualization is what later would be the provision to face rapid advancement of the world.

Keywords: self-actualization, notebook, doodle

Humans need recognition from others for his/her existence; it happens commonly in childhood and adolescent. Therefore, guidance is necessary to be on the right track. Various ways can be conducted to get the most of the potentials. Determine the choice of activities in adolescence should be careful because the experience gained during childhood and adolescence will continue to carry a basic mindset on adulthood. This valuable experience can be gained from anywhere, including at the time of the drawing process. Because of learning to draw, someone unintentionally also learn to control themself emotionally as well as physically.

Notebooks are an integral part in education life. The activity of taking notes on notebook becomes part of daily life. Taking notes is the activity of recording something in the form of scratches that often means in writing. Although at the reality, these scratches can be in any form including drawing. Taking notes is familiar activity which is introduced in the learning activities in schools since childhood. Even though that seems trivial, notebook is very much beneficial. When the idea came, or while listening to explanation, even when having discussions, notes would be very helpful to remember things.

Since early age, students are required to have records or notes on each subject. It is expected to train children' motoric by learning to write. Along with their growth, children start using their hands smoothly. For that reason, notebook is only used as complementary. Teachers only require students to take notes without giving further guidance on how to make a record effective and interesting to learn back. Eventually, this kind of form will carry over later in the future. Notes written in average literary forms without incorporating elements of good aesthetics of the written form as well as on how to construct pattern writing. That makes the notes less interesting to look back on.

This could happen since students copy what the teachers write as it is. Also, students are not directed to take their own notes in accordance with their own understanding when the teacher was explaining. It is also possible that the teacher has never shown a way on how to create an interesting note.

Students found taking note is boring activity. As if the school is just a writing course. Writing activities are often only a form of physical activity for students to write without

thinking what they were writing. Teachers expected student to be quiet by taking notes. Teachers do not consider whether the student will look back on their notes or not.

Starting from the fact about the students' notebook, come up the idea on how to make interesting notebook. This will be useful for learning activity both at school and at home. Therefore, the role of teachers in providing guidance on how to make the notebook interesting is important. However, not all teachers dare to change the old mindset of notebook, which is impractical and boring. Note becomes very important, as said by Henarcki (1999:146) that record/notes may improve memory and help recall what has been stored in our memory.

An important advise that should be emphasizes is do not underestimate notebook. Most people only remember a little of things without repeating it constantly or record it. The question is that how much and what format do we use to make the students willing to look back on their notebook. Notes in the form of hand scratches have many benefits in the development of intuition, imagination, motoric creativity, and right brain activation. Attractive notebook not only consists of writing but also can be added with pictures. Here, the pictures are called doodle image. Drawing doodles on notebook can also include emotional learning experience such as increasing focus, patience, tidiness, perseverance, and other emotions control. Not only serve as decoration, doodles can also function as a part of learning to train students' creativity.

Less creative note can be caused by many things, among others:
Teachers' lack of knowledge about the importance of notes with an interesting form.
Teaches feel unable to give an example on how to make notebook interesting.
Students are already familiar with the concept of the old notes.
Students are unable or do not like to draw.

INTRODUCING NEW CONCEPT OF NOTEBOOK

Introduces a new concept to both teachers and students is not an easy task. Innovation which is done to students might be easier as younger generation is more easily established with a series of assignments. On the contrary, it is more difficult to apply it to the teachers. That is because the teachers have been attached to the old concepts. Thus, cooperation from both students and teachers are required to get maximum results.

Taking note is one of the most important capabilities that is learned by human. Note is not just a collection of coherently neat words, it can be concluded as "simply, note can be interpreted as keeping or recording information or important data in the form of notes" (H.D Irianto, 2015:67). Notes should improve memory. Human memory is astounding as it can store everything which is seen, heard and felt. Like computers, this memory works automatically, but sometimes it cannot because the brain focuses on something else. From several experiments, "it turns out that the human brain can be stimulated by information and become smart by the experiences learned" (Shahib, 2010:5). Effective recording will help save time by storing information more easily and remember it again if necessary.

The main issued that will be discussed here is to make interesting notebook by using decorating technique. Just like children that like books with many illustrations. Starting from that, came a new concept that explores the importance of decoration as well as the notes content. Some people consider images on notebook can interfere the concentration while reading, but some others find it attractive.

This new concept not only aims to make a note interesting, but also aims to sharpen the students' skills in exploring their creativity and potentials. According to Shahib (2010:42) creativity is not spontaneous; it is a joint product of logic, artistry, physical, motivation, feelings and imagination that is integrated into a new idea. Creativity is supposed to be honed through various means including practices to make small drawing on notebook. The importance of

motivating students to show their creativity is stated on Problem Based Learning by Shahib (2010:74), that problem is solved by personal capabilities through the development of ideas in a scheduled basis. Maturity comes gradually obtained through the guidance of teachers; however student is a teenager who still needs advice and guidance to become independent and responsible person. It is undeniable that personal maturity cannot be separated from social environment as proposed by Shahib (2010:77) that, if children have been accustomed to using left brain which is think logically, then the emotional bond is shifting toward logic. Therefore the obedience, devotion, and compassion based logic is applied, which is not familiar in Indonesia society.

This has to do with the mindset of constructivism which emphasizes the application of this study, which led to the students' capability to build independence conceptualization and to take the initiative in the process of learning (Asrori, 2009:28). Building students' mindset to be more enthusiastic in learning is not easy; it takes patience and knowledge to direct to the right concept.

Constructivism learning characteristics according to Asrori (2009:28) are:

- Emphasizing on the learning process.
- Encourage the independence and learning initiative.
- Viewing students as the creators of will and goal to be achieved.
- Believes that learning is a process, not an emphasis of results.
- Encourage students to be able to do investigation.
- Appreciating the role of critical learning experiences.
- Encourage the development of natural curiosity.
- Marking is emphasized on students' performance and understanding.
- Set up the learning process on principles of cognitive theories.
- Using many cognitive terminologies to describe the learning process; such as predictions, inference, creation, and analysis.
- Emphasizing the importance on 'how' the students learn.

Based on the theories stated previously, the students can be directed by the teachers to be more mature, which in this case, can be accomplished by applying doodle drawing.

Teachers must actively practice in order to give maximum guidance for the students. It required intensive training and a strong willingness of non-education of arts teachers so that they can maximize themselves first and can direct students well. But this would be quite obstacle for many teachers who still have the understanding that adults cannot draw. This paradigm should be changed so that the teacher can convince students that drawing is not as difficult as imagined.

From this point of view, this is a major obstacle, because of the increasing age especially a teacher, does not have the passion to learn new things. It required high personal and emotional control to be able to realize the spirit of learning among non-education of arts teachers in order to understand the theory of art through practice simple drawing. Whatever the shape of the image are all related to the power of thinking and involvement of feelings and emotions.

Once teachers understand the meaning and purpose of applying doodle, teachers are expected to practice drawing in various ways. There is no limitation of time and space; it only takes a strong will to make it happen. From the results of these, teachers can learn to draw with confidence and confidently give an example to make interesting note, not only aesthetic writing but also making interesting doodle. After all students have an old concept in making records. Without a new concept, there will be no change towards the better that will be taken during their life in the future.

DOODLE DRAWING

Decorate a notebook requires the ability to draw and diligence in completing the decorations. Decorations that have good aesthetic value require concentration and a strong will to resolve. Many students who initially complained of cannot draw, some feel painstaking and easily bored of having to perform activities that require concentration and should linger in one activity. However, after the approach to the concept of drawing is a learning process that does not have to be like magic -that suddenly there is a good image- the students began to dare to do. As Chuck Norris said, quoted by Brown (2016: 34) the importance of training Positive Mental Attitude on students is very important as a preparation to face all the problems later. To continue motivating students for taking the necessary steps to reach his goals. As a beginner, drawing can be done by copying the image the students like first. Sample images can be taken from any image that attracts students to become objects of decoration because basically copying is a learning center to draw Valensa (2008: 26). Decoration on this notebook also does not require a full-page image; it is more of giving spirit to the students.

Decorating is included on doodle category. In Bahasa Indonesia, doodle literally is "scratch". While scratching activity is an easy thing to do. Brown (2016: 4) said that basically every human being has a visual intelligence. But unfortunately this visual intelligence that has since childhood lacking in the right direction, and finally when stepping on school days it is buried because of more emphasis on the written language. This is also due to lack of knowledge about the use of visual language in our lives. Brown (2016: 8) defines "visual language is a language that gives extraordinary powers to articulate ideas in solving problems in ways that may not be able to do in other ways". For someone who is no longer kids, doodle cannot be done without thinking. Doodle or scratch can be made in the form of meaningful or merely abstract graffiti without even meaning still requires thinking.

A new definition of doodle by Brown (2016: 13) was making signs spontaneously to help the thinking process. This opinion strongly supports that the doodle can serve as a visual language that will support a learning process. Doodle here is an image that does not have heavy meaning but more emphasis on the process of working on it. The process of making is important as said by Brown (2016: 33) "in Doodle zone, someone breathing slowly, heart rate decreased, relax his mind, while the focus sharper". Here it could be interpreted that when drawing, the students can improve focus, while unknowingly decline emotions. At this moment the process of learning to be more patient and skillful is being undertaken. Media used also does not require expensive equipment or difficult to obtain. However, this scratch activity still has to show its aesthetic value so attractive to be enjoyed.

A doodle works usually show the feeling of maker. This can be seen from the result of scratches or drawings made. Unknowingly sometimes scratches were made calming down the maker. This activity is expected to be a relaxation after studying hard using left brain or in other words can calm the mind by making a doodle. Doodle expected as a means to reduce the level of stressing at the time of study. It is also expected to be a means to hone motor skills and increase creativity in drawing. According to Iare on the book by Valensa (2008: 14) 'The process of developing and using the constituent images have been shown to improve students' critical thinking skills and thinking skills sequentially higher'.

Doodle created from within the heart would appear to have the feel and deep meaning. However, it is required a long time to be able to produce a doodle that is nice and interesting. It takes time, patience and diligence in working on a doodle that demands rather than on the many ornaments produced but more at the content. Doodle drawing no longer concerned on the results but the learning goal is the drawing activity itself. According to Ching (2002: 9) draw is made a sketch on a surface which graphically presents the appearance of something. Make a

sketch is what should be considered the process as closely related to the level of feelings and emotions at the time. Directing students in the process of making a scratch is very important because it should include the belief that any form of scratches produced not as important as the journey of learning and experience gained during generating the image. Ching (2002: 21) argues that "the end point of drawing tools is simply an extension of the hand that guides and directs the eyes of the mind in describing something across a surface area and design a unique vision and personal". And this is the challenge in directing students on "our primary goal is to gain control in drawing lines. The exercises are intended to help develop skill and confidence in drawing the line ".

The quality of a hand scratches will be visible on the physical appearance of the images created, broken lines, repeated lines, thin and faltered lines. Or also strong with rigid and sharp lines, or the lines are pressed so as to leave a mark behind the paper. Of the various kinds of scratches results is what makes an image into different values. Variety of Different lines can cause different impression, for example, straight lines create the hard impression, curved lines give the soft impression, spiral line give pliable impression, etc. (Marga, 2015: 3). Similarly, the pressure like strong, moderate or weak can produce different meanings like a mirror which shows the feelings of the author, whether still hesitant, established or fear of being wrong. Marga (1015: 9) states that some of the lines that with intertwined lines form a two-dimensional geometric and nongeometrik that is required to make shapes like circular, square or curve with a good level of accuracy.

Although it is not required to produce work that is really good but the science of drawing still need to be studied to achieve maximum results. At the level of more complicated practice, it requires knowledge of how to regulate the proportion or proportionality between the one with the other parts of the image well to make it look natural and attractive. Practicing to compose or arranging the composition of the image so that it looks balanced, unified and rhythmically is very necessary so that the overall picture becomes enjoyable.

To make a good design takes practice to create the impression of light and dark which can give the effect of more real because the pictures have been seen to have volume. It is also required to practice shading as written Highways (2015: 3) that the shading is made parallel lines and repeatedly so as to produce certain effects which could be a shadow, texture, much closer, dimensions, etc. All kinds of this knowledge will not support a work if it is not accompanied by a strong will in practice. So, we need the guidance of the teacher to keep the students interest not only to make decorations on the notebook.

Basically, drawing requires clarity of mind. This can be achieved by fun learning. As written by Hernacki (1999: 14) in his book Quantum Learning that the 'Accelerated Learning' allows students to learn with excitement. By instilling a positive mindset, physical and emotional fitness will be obtained an effective learning experience. Students' emotions are expected to be controlled as a fun learning. Continuing practice drawing a doodle can stimulate students to develop their creativity unknowingly. After being able to cultivate students' interest in drawing doodle, it is expected the eagerness to learn things around them to also growing.

According to Hernacki (1999: 90) a lot of things as the background to learn are interrelated and influence such as intelligence, education, and gene, but it turns out that the greatest role is to have positive attitude. Doing doodle drawing process without being followed by positive thinking about what will be a learning experience acquired during practice drawing would be a burden alone. Students who felt they could not draw should receive more intensive guidance to cultivate the courage to start to draw because of the courage it takes to generate interest first. Hernacki (1999: 36) also concluded that any age from birth to death is likely to improve mental abilities through environmental stimuli. This underlines that the learning process can continue as long as people still have a passion for learning and progress. Here,

learning including developing creativity to decorate notebooks. For example beginners can access images from the internet or buy reference books from the bookstore as one of the intelligent alternative to lessen stress like the one in the pictures below.

Coloring books are very diverse that become a trend among the people of the city and is believed to reduce the high levels of stress due to job stress. This environment can be an alternative option to be used as an example in developing drawing skills.
Below are some examples of student work that has dared to develop their creativity to decorate a notebook.

CONCLUSION

It can be concluded that there should be courage to start to draw anything since decorate notes by drawing the doodle is not the end result but more emphasis on the process for drawing. Not only students but also teachers should also participate actively to change the old paradigm in order to obtain maximum results for all parties. After growing interest in a good and positive mind in drawing doodles, it is developing skills to obtain a lot of knowledge and experience about fun drawing. Drawing a notebook with doodles image can obtain good emotional experience and skills development if such a sense of painstaking, meticulous, patient and focus the results can be implemented on other activities. From the acquisition of the learning experience to draw these students also have to manage emotions and mental wellbeing and will eventually be able to develop their creativity towards other skills.

After going through the process of learning and develop creativity through drawing, students also have a growing sense of confidence that can be used as a handle to dig deeper into their potential. This confidence can direct students to choose their capabilities, both in the visual field and other fields. Nevertheless, students still need guidance from teachers and parents that the self-actualization can be focused and continue to develop in accordance with his age.

SUGGESTION

There must be courage to change the paradigm of the teacher to train students to dare drawing doodle as decoration notebook. This interesting notebook can be applied to all subjects that need to be developed not only decoration but also practicing to make great typography. This can make the notebook not only have decorated edges but also in terms of the writing is exciting to be looked back.

REFERENCES

Amin, M. Z. M. and Embi, M. A. 2010 "Strategies for Successful English Language Learning (SELL). *Karisma Publications Sdn. Bhd.*

Barrios, E. (2015). Spanish pre-service teachers of English: Perceived use of language learning strategies and its relationship with proficiency. Revista Española de Lingüística Aplicada, 28(1), 48-72.

Samah, R., Puteh-Behak, F., Saad, N. S. M., Ali, S. M., Darmi, R., & Harun, H. 2016. Effective Methods in Learning Arabic Language as a Foreign Language. Mediterranean Journal of Social Sciences, 7(3), 349.

Chamot, A. U., & O'malley, J. M. 1987. The cognitive academic language learning approach: A bridge to the mainstream. *TESOL quarterly, 21*(2), 227-249.

Chan, H. W. 2016. Popular Culture, English Out-of-class Activities, and Learner Autonomy among Highly Proficient Secondary Students in Hong Kong.

Cohen, A. D. 1996. Second language learning and use strategies: Clarifying the issues: Center for Advanced Research in Language Acquisition.

Cohen, A. 1998. Strategies in Learning and Using a Second Language. London and New York: Longman

Cohen, A. 2011. Strategies in Learning and Using a Second Language (2nd edition). London: Longman

Cohen, A. D. 2014. *Strategies in learning and using a second language*: Routledge.

Dörnyei, Z., & Ryan, S. 2015. *The psychology of the language learner revisited*. Routledge.

El-Omari, A. H. 2016. Factors Affecting Students' Achievement in English Language Learning. *Journal of Educational and Social Research*, *6*(2), 9.

Embi, M. A. 1996. Language learning strategies employed by secondary school students learning English as a foreign language in Malaysia.*Unpublished Doctoral Dissertation. School of Education, University of Leeds*.

Entwistle, N., & Ramsden, P. 2015. *Understanding Student Learning (Routledge Revivals)*. Routledge.

Genc, G.; Aydin, S. 2011, Students' Motivation toward Computer-Based Language Learning, International Journal of Educational Reform, 20, 2, 171-189

Goldenberg, C. 2013. Unlocking the Research on English Learners: What We Know--and Don't Yet Know--about Effective Instruction. *American Educator*, *37*(2), 4.

Griffiths, C. 2008. Strategies and good language learners. In C. Griffiths (Ed.), Lessons from Good Language Learners (pp.83-98). Cambridge: Cambridge University Press

Griffiths, C. 2013. The Strategy Factor in Successful Language Learning. Bristol, UK: Multilingual Matters

Griffiths, C., & Inceçay, G. 2016. New Directions in Language Learning Strategy Research: Engaging with the Complexity of Strategy Use. In *New Directions in Language Learning Psychology* (pp. 25-38). Springer International Publishing.

Hsiao, T. Y., & Oxford, R. L. 2002. Comparing theories of language learning strategies: A confirmatory factor analysis. *The modern language journal, 86*(3), 368-383.

Huang, I. C. 2015. Language learner strategies and English proficiency of college freshmen in Taiwan: A mixed-methods study. The Asia-Pacific Education Researcher, 24(4), 737-741.

Javid, C. Z., Al-thubaiti, T. S., & Uthman, A. 2013. Effects of English language proficiency on the choice of language learning strategies by Saudi English-major undergraduates. English Language Teaching, 6(1), 35.

Kamalizad, J., & Samuel, M. 2016. The Role of EFL/ESL Settings in Using Language Learning Strategies. The Asian EFL Journal Quarterly March 2016, 18 (75).

Khamkhien, A. 2010. Factors affecting language learning strategy reported usage by Thai and Vietnamese EFL learners. *Electronic Journal of foreign language teaching*, 7 (1), 66-85.

Khatib, M., & Najafi, S. 2012. An investigation of motivational strategies used by L2 language teachers to promote English language learning: A case of Iranian high school students. *Advances in English Linguistics*, *1* (4), 85-90.

Kitsantas, A., & Cleary, T. J. 2016. The Development of Self-regulated Learning During Secondary School Years. *Handbook of Motivation at School*, 169

Kobayashi, R. 2016. An Exploratory Study on Language Learning Strategies of Japanese ESS Students.

Lee, C. K. 2010. An overview of language learning strategies. *Arecls, 7*, 132-152.

Martínez, I. M. P. 1996. The Importance of Language of Language Learning Strategies in Foreign Language Teaching. *Cuadernos de Filologia Inglesa, 5*(1).

Md Yunus, M., Sulaiman, N. A., & Embi, M. A. 2013. Malaysian gifted students' use of English language learning strategies. English Language Teaching, 6(4). http://dx.doi.org/10.5539/elt.v6n4p97

Mohamed Amin Embi. 2000. Language Learning Strategies: A Malaysian Context. Penerbit UKM: Bangi

Mohamad, A., Husain, F. M., & Karia, N. 2014. A learning strategy profile of undergraduate university students in a public tertiary educational institution. *International Journal of Arts and Commerce*, *3*(8), 172-184.

Naiman, N. 1975. The Good Second Language Learner. Tesl Talk, 6 (1), 58-76.

Nazri, N. M., Yunus, M. M., & Nazri, N. D. M. 2016. Through the Lens of Good Language Learners: What Are Their Strategies?. *Advances in Language and Literary Studies*, *7*(1), 195-202.

O'malley, J. M., & Chamot, A. U. 1990. *Learning strategies in second language acquisition*: Cambridge University Press.

Oxford, R., & Nyikos, M. 1989. Variables affecting choice of language learning strategies by university students. *The modern language journal,* 73 (3), 291-300.

Oxford, R. 1990. *Language learning strategies: What every teacher should know.* New York: Newbury House

Oxford, R. L. 1999. Relationships between second language learning strategies and language proficiency in the context if learner autonomy and self regulation. *Revista Canaria de Estudios Ingleses,* 38 (1), 109-126.

Oxford, R. 2011. Teaching and Researching Language Learning Strategies. Harlow: Pearson Longman

Riding, R., & Rayner, S. 2013. *Cognitive styles and learning strategies: Understanding style differences in learning and behavior*. Routledge.

Rao, Z. 2016. Language learning strategies and English proficiency: interpretations from information-processing theory. *The Language Learning Journal*, 44 (1), 90-106.

Razak, N. Z. A., Ismail, F., Aziz, A. A., & Babikkoi, M. A. 2012. Assessing the use of English language learning strategies among secondary school students in Malaysia. Procedia-Social and Behavioral Sciences, 66, 240-246.

Rubin, J. 1994. A review of second language listening comprehension research. *The modern language journal, 78* (2), 199-221.

Saad, N. S. B. M., Yunus, M. B. M., & Embi, M. A. B. 2015. Exploring the Connection between Out-of-class Language Learning Strategies and In-class Activities. *Journal of Applied Research in Education*, *19*, 36-49.

Seker, M. 2015. The use of self-regulation strategies by foreign language learners and its role in language achievement. *Language Teaching Research*, 1362168815578550.

Schmidt, R. (2012). Attention, awareness, and individual differences in language learning. *Perspectives on individual characteristics and foreign language education*, *6*, 27.

Shafie Shafinaz 2013. Language Learning Strategies Used by Students Preparing for IELTS Examination. Journal of Interdisciplinary Research in Education (JIRE) Vol. 3, Issue 1, 2013, pp. 71 - 80.

Varasteh, H., Ghanizadeh, A., & Akbari, O. 2016. The role of task value, effort-regulation, and ambiguity tolerance in predicting EFL learners' test anxiety, learning strategies, and language achievement. *Psychological Studies*, 1-11.

Wenden, A. 1987a. How to be a successful language learner: Insights and prescriptions from L2 learners. *Learner strategies in language learning*, 103-117.

Wenden, A. 1987b. Metacognition: An expanded view on the cognitive abilities of L2 learners. *Language learning,* 37 (4), 573-597.

Yunus, M. M., Sulaiman, N. A., & Embi, M. A. 2013. Malaysian gifted students' use of English language learning strategies. *English Language Teaching*, 6 (4), 97.

Zakaria, S. M., Yunus, M. M., Nazri, N. M., & Shah, P. M. 2016. Students' Experience of Using Storybird in Writing ESL Narrative Text. *Creative Education*, 7 (15), 2107.

Zare, P. 2012. Language learning strategies among EFL/ESL learners: a review of literature. *International Journal of Humanities and Social Science,* 2 (5), 162-169.

Feasibility Analysis of Beverages Herbal Products of The Medicinal Plant as a Material Community Empowerment

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Abstract: Herbal beverages produced, sold, and consumed by the public as a secondary requirement. Results of a preliminary study on home-made herbal medicine industry showed microbial contaminants on the threshold based on the Indonesian National Standard. This indicates that the knowledge society in the processing of herbal medicine is still low. The purpose of this study: 1) determine the feasibility of herbal beverages made public based on total plate count molds, 2) determine antibacterial of various herbal beverages, 3) determine the effectiveness of dissemination to the public. Laboratory experimental research methods. The results showed that: 1) there is a difference feasibility herbal beverages based on figures molds, 2) there is a difference antibacterial of any species of plant material herbal beverages, 3) Increased empowerment economically weak rural communities were implemented through character education program is described as a clean and healthy living behavior.

Keywords: Feasibility, herbal beverages, medicinal plant.

Health is a primary need for every human being. One of the factors that support in meeting those needs required a healthy lifestyle. The primary requirement to support a healthy lifestyle is the food. The consumption of food products needs to pay attention to quality in the form of feasibility and safety, so as not to be a problem. Public health issues can be anticipated to improve the quality of human resources.

The survey results (Lutfin et al., 2016) regarding the Clean and Healthy Lifestyle ("PHBS") in several districts of Malang Regency which includes districts Wagir, Tumpang, Poncokusumo, Bantur, Turen and Pujon low. Data revenue per capita is low, mostly eyed-income farm workers. There is a small percentage of people are already working to make herbal drinks from plants in the vicinity to support their economic needs, but still very simple processing method and not pay attention to the feasibility and safety of the product. Preliminary study on community-made herbal medicine sold shows the total plate count (TPC) mold exceed the threshold stipulated Indonesian National Standard, which amounted $3x10^2$ colonies/gram. Should the effort to improve the knowledge, skills and support their earnings to increase the value of the community's economy. One form of community empowerment through the use of plants as a medicinal plant products in accordance with national standards of Indonesia (SNI).

Related to a clean and healthy life behavior, quality requirements herbal product that enables done by the people is the manufacture of crude drugs for the prevention of microbial contamination. Criteria of microbial contamination in SNI include Total Plate Count (TPC) microbes, Most Probable Number (MPN) Coliform bacteria, *E. coli*, Salmonella, *Clostridium perfringens*. The maximum limit microbial contamination ALT $2x10^2$ colonies/mL. Based on preliminary research in six districts have been identified in plants that has potential as a drug and is abundant.

The abundance of plant species that exist in every different locations, namely in the district Bantur found predominant interest shelled (*Ixora paludosa*), in the district Turen Red

Andong plant (*Cordyline fructicosa* L.), District Poncokusumo Prei onion plants (*Allium porrum*), District Wagir plant Hyacinths (*Himenocallis littoralis*), District Tumpang plant Croton (*Codiaeum variegatum*). Abundance of existing plants has not been utilized to the maximum by the villagers.

Each plant has a different bioactive compounds. Various bioactive contained in plants such as eugenol, saponins, alkaloids, polyphenols (Hintz et al. 2015). Bioactive compounds contained in function as immunomodulatory (Carmona-ribeiro et al. 2014), antioxidant (Hintz et al. 2015), antifungal (Hintz et al. 2015; Voravuthikunchai & Howe 2014; Ostrosky-zeichner 2016), and antibacterial (Działo et al. 2016; Voravuthikunchai & Howe 2014; Hintz et al. 2015). These bioactive compounds can be used for the treatment of various diseases, including diseases caused by bacteria.

Some diseases caused by bacteria and usually affects the general public include upper respiratory tract infections (Indonesia: ISPA), and gastrointestinal infections (enteritis). Bacteria that cause respiratory diseases, among others, *Klebsiella pneumoniae*, *Corynebacterium tuberculosis*, *Pseudomonas spp*, *Proteus spp*, *Haemophilus influenza*, *Bordetella pertussies*, *Staphylococcus aureus* (Madigan et al. 2012). Some of the bacteria that cause enteritis, for example *Salmonella thyposa*, (Hintz et al. 2015; Nair et al. 2016; Field & Boat 2012; Zhou et al. 2015; Carmona-ribeiro et al. 2014), *Shigella* desentriae (Carmona-ribeiro et al. 2014; Hintz et al. 2015; Nair et al. 2016), *Campylobacter jejuni*, and *Clostridium difficile* (Field & Boat 2012; Zhou et al. 2015; Carmona-ribeiro et al. 2014). Indicator used to test the antibacterial activity is the cause of ARI *Staphylococcus aureus*, for enteritis is *Escherichia coli*. Causing pathogens tested dysentery with *Shigella disentriae*.

The use of synthetic drugs is constantly can cause disease agents (pathogens) resistant to the drug (Spellberg et al. 2012, Ribeiro and Carrasco, 2014). Side effects of other synthetic drugs include: allergy, nausea, vomiting (Field & Boat 2012; Review, 2011; Review, 2016), diarrhea (Review, 2011.; Field & Boat 2012; Zuo et al. 2015; Review, 2016), hepatotoxic, nephrotoxic (Luk & Simkin, 2005.; Review, 2011.; Carmona-ribeiro et al. 2014; Field & Boat 2012; Fuursted et al. 2016; Review, 2016) etc. Habits of the rural poor consume synthetic antibiotic medication only until clinical symptoms disappear. However, not discipline to take medication as physician recommends that a cure to completion. The reason the price of expensive drugs, then the rest can be used again if the symptoms reappear. Ways of taking the wrong drugs will affect accelerate immune disease agents to the drug. Based on the behavioral habits of drugs by poor people who are not good, it is necessary to find the solution of the problem.

Efforts to reduce the side effects of synthetic drug use can be done with natural treatments that utilize plants around the efficacious drugs. Wanafarma use of plants as herbs can reduce the side effects of synthetic drugs such as who has researched some experts (Voravuthikunchai & Howe 2014; Moreno-hernández et al. 2014; Review, 2016; Działo et al. 2016). Place of residence targeted communities studied are in the forest, therefore it needs to be disseminated use of the medicinal plant crops to empower communities. Community empowerment is done in order to improve the education of characters through (Indonesia: PHBS).

Microbiology laboratory FMIPA UM has the competence that support for testing the quality of the product simplicia made public by using TPC and antibacterial tests. The research objective 1) determine the feasibility of herbal drinks made public based on total plate count molds, 2) determine antibacterial of various herbal drinks. 3) determine the effectiveness of dissemination to the public.

METHODS

Research methodology there are 2 stages: the first stage of laboratory experiments, and the second stage of qualitative research community empowerment. Location microbiology laboratory experiments conducted at the UM Department of Biological Science from June till October 2016. The tools used consisted of sterilizer autoclave, oven dried, needle inoculation, Petri dishes, culture tubes, and material culture Media Potato Dextrose Agar (PDA).

The second phase of qualitative research that aims to empower the community. This phase is done after socialization PHBS through various media, namely (a) Leaflet / Poster/Calendar, intended for literate societies, (b) Video/Multimedia for the illiterate, (c) Booklet/Book Smart/Books Popular Science, for educated people (either regular or packet A). Data analysis techniques, carried out with the target community situation analysis that can be extracted through triangulation of data (observations, questionnaires and interviews). Data were collected before and after the socialization of PHBS Data were analyzed descriptively.

RESULT

Data from the first phase of the research, covering a total plate count of mold and antibacterial activity of the medicinal plant crops. Details of the data presented in Table 1 and Table 2.

Table 1. Total Plate Count Fungi Simplisia medicinal Plants

Repeated	Root	Bark	Leaf	Fruit
1	fc	fc	fc	220
2	290	fc	fc	340
3	120	fc	fc	230
4	100	fc	fc	210
5	fc	fc	fc	410
6	fc	fc	fc	150
Mean	170	fc	fc	260

Description: fc, meaning too little to count

Table 2. Antibacterial Power Plant Crude Steeping Soka (*Ixora paludusa*)

Repeated	50%	25%	12,50%	0%
1	15	40	Mc	Mc
2	10	42	Mc	Mc
3	8	60	51	Mc
4	3	48	Mc	Mc
5	18	25	mc	mc

Description: mc, meaning too many to count

The results of the second phase of the research, observations related to research on weak economic community. Rural communities in the Bromo Tengger Semeru National Park Malang district, they are located in the plateau area average altitude of 2000 meters above sea level. Including forestry areas that tend to be cooler with average air temperature of about (0-20)°C,

and spread over six districts. The results of the identification of some plant diversity that has potential as a drug (medicinal plant crops) is abundant. Medicinal plant plants scattered in every district has a distinct dominance. The difference is in the district Bantur widely found flowers soka (*Ixora paludosa*), in the district Turen Red Andong plant (*Cordyline fructicosa* L.), District Poncokusumo Prei onion plants (*Allium porrum*), District Wagir plant Lilium (*Himenocallis littoralis*), and in District Tumpang there are plants croton (*Codiaeum variegatum*).

Abundance of plant species that exist at each site was high and allowed to grow in the forest, foliage dusty and looked very unkempt, and has not been utilized to the maximum by the community. The results of the analysis of bioactive ingredients of the medicinal plant crops dominant in six districts showed no antimicrobial potential. Results of laboratory exploration of the feasibility test in vitro by total plate count of fungi against simplisia organ parts roots and bark not meet quality standards.

Data questionnaire, about the livelihoods of target communities that are poor in general (85%) work as agricultural laborers (Rehusisma et al, 2016). Interview data showed that public knowledge about the benefits of different types of local plant less, Behavior Clean and Healthy Lifestyle (PHBS) in general is low (Restiani et al, 2016). The collected data is analyzed to formulate an advanced program planning, therefore, directed to achieve adherence to community empowerment through Character Education Program through PHBS.

DISCUSSION

They have been isolated from tubers, leaves, pods, seeds, and flowers. Defensin gene expression can be developmentally regulated or influenced by external stimuli. Pea, tobacco, radish, and *Arabidopsis* have defensin genes that are expressed upon pathogen infection (Hintz, 2015).

The patients with a single hospital admission were more similar to those with no admissions than to the multiple admission group. This trend was seen for all five mold allergens studied (Table 2). The frequency of sensitization to any individual mold ranged from 26% (*Alternaria*) to 41% (*Cladosporium*) in the severe asthma group compared with 0–10% in the milder asthma groups (Ronand, 2005).

Antimicrobial resistance can be defined as the ability of microorganisms to counteract the effects of one or more antimicrobials, they initially sensitive. Several types of disease agents that are resistant to antimicrobials among other fifteen isolates Salmonella non-typhoidal enterica serovar belonging to resistant to Azithromycin (6 -16 mg/L)(Nair et al. 2016). This study aims to assist people applying weak economy and health behavior, while informing some phenomena research results were compared with expert research on the use of herbal remedies. Several studies have shown that the use of herbal medicines to reduce the risk of nausea, vomiting and allergies since the plant has saponins, phenolic, anti-inflammatory and antioxidant (Alam et al. 2011; Działo et al. 2016; Luzia & Jorge 2014; Carmona-ribeiro et al. 2014; Zuo et al. 2015; Field & Boat 2012; Zhou et al. 2015). The compounds were found in some parts of the plant to act as a defense mechanism to protect plants against infectious organisms. The causative agent of infectious diseases in plants is bacterial or mold. Using the principle of control microorganism has a cell structure and physiology are similar, as a result of these microorganisms can be controlled with antimicrobial herbs.

Simplisia quality standards-based drinks can be referenced using the same criteria in the national standard of quality requirements bottled tea beverages. Such criteria include, among others, color, aroma, flavor, metal contamination and microbial contamination (Indonesia: SNI, 1992). Criteria metal contamination of crude drugs derived from plants that are located in mountainous areas overlooked for much of the industry, as well as color, aroma, and taste.

Microbial contamination is contained in beverages and foodstuffs, if it exceeds the standard threshold, it can indicate that the material is not suitable for consumption by the user community.

Microbial contamination can be either digits mold and Total Plate Count (TPC) bacteria. TPC value that exceeds the threshold indicates that microbial contamination in food or beverages that tested high. The food that has been contaminated by the amount of mold that many if consumed by people, it can result in intoxication. Intoxication is the inclusion of metabolites of molds are toxic to humans. Metabolites include aflatoxins (Pandey & Natarajan 2015; Andersen et al. 2011; William B. Whitman 2009), ochratoxin (Andersen et al. 2011), fumonisin, patulin, zearalenon (Gallo et al. 2013). The clinical symptoms of people infected by the fungus metabolites, similar to symptoms of poisoning synthetic drugs, such as nausea, vomiting, diarrhea, hepatotoxicity, nefrotoxic (Stoev & Denev 2013; Rosenblum Lichtenstein et al. 2015).

Improving the quality of human resources into a common regional targets. Government through the President of the Republic of Indonesia Regulation Number 8 Year 2012 Date January 17, 2012 has set nine levels of qualification of human resources. Description of each level of qualification based on the ability to implement the kinds of tasks, knowledge, and volume responsibilities.

Character education for rural people needs to be done in order to improve their well-being to the whole person according UUD'45 formation. The government has established through the Regulation of the Minister of the Interior of the Republic of Indonesia Number 1 Year 2013 About the Community Empowerment. Embodiments of the whole man is a prosperous man in body and soul, is done through Empowerment and Family Welfare Movement (Indonesia: PKK). Public welfare may materialize for their healthy humans. Criteria healthy spiritual and physical, includes faith and devoted to God Almighty, noble and virtuous, healthy and prosperous, advanced and independent, gender equality and equity as well as legal and environmental awareness.

Empowering communities through character education of rural communities economically weak. Manifestations have appeared during mentoring. Learning is done directly in the community, by first knowing the characteristics of the community. The characteristics of the economically weak rural communities generally tend to be very passive. They depend on the natural resources that exist and according to geographical location. People living in rural areas near the coast is the main livelihood as fishermen, who are in the agricultural area eye-quest is farming and livestock breeding, and which are in plantation farming and gardening. They generally go and accept what the appropriate circumstances of his life line. System in a rural community still seems that every citizen to know each other, work together, help each other, and guyub harmony. Such traits can actually benefit society for the preservation of the local environment. But in terms of global competition economic level society is still far behind than the average national income per capita.

The results of the study after the character education in rural communities can be realized from “PHBS” indicator. One indicator with due diligence analysis of herbal products processed communities based on total plate count (TPC) microorganisms. Initially before the assistance obtained TPC test mold in the processed crude drugs of plant organs. ALT value simplisia roots and bark of plants is still not viable. ALT value indicates that the utilization of part of plant organs, especially the bark and roots are more at risk of fungal contamination. Excessive number of fungal contaminants in the plant opens opportunities affects the health of humans who consume the products of medicinal plants, namely the presence of toxins called mycotoxins.

Mycotoxins are the result of secondary metabolites of fungi that are difficult to remove because heat resistance (resistant to very high temperatures> 100°C) (poisoning mycotoxins in humans can cause clinical symptoms include nausea, vomiting, diarrhea, liver damage (Ronan et al, 2005). Based on research antibacterial power plant medicinal plant dominant, enough potential to be further explored. exploration results indicate that the abundance of plant species of the medicinal plant that exist in every location has not been utilized to the maximum, and the community in producing crops of the medicinal plant is still traditional. Based on some of the data results research that has been done, it is necessary to improving the welfare of weak economic community through community empowerment, particularly education code clean and healthy life ("PHBS").

Weak economy in rural communities tend to passively manage the environment, it is because they feel they have no land for a place to stay and to be managed. Society of these groups need to be considered, and motivated to meet their needs in order to prosper. Improving the welfare of rural communities require an empowerment strategy that can motivate them to participate undertake a program of joint activities of other communities, so as to improve its economy. One of the program to improve the economic standard of society by utilizing natural resources means the use of the medicinal plant crops.

The first step the introduction of community empowerment through awareness of plant utilization program of the medicinal plant, used to infuse character education a healthy life. Villagers were weak economic level empowered to participate and implement programs of the medicinal plant plant utilization. Communities were given the opportunity to participate in managing the plant wanafarna produce a decent product or meet quality standards. Ways of crop management is done aseptic technique, from the stage of the selection of the plant, picking, sorting, washing, drying, packaging, up to a product ready for sale / is ready for consumption.

The second step is empowerment assistance for implementing program activities. Assistance is intended as a stage monitoring from a short distance, because researchers can jointly participate rural communities and actively implement the program. The pattern of assistance to implement healthy living can be done through anjangsana directly into every home with PKK cadres, based on data from KK to each Dasa Wisma, or to the Village Hall. During the mentoring role as coach researcher who also monitor how much of the active role of rural communities implement PHBs. Mentoring is not just giving lectures, presented papers, or advocating the form of suggestions, but by example PHBS together with the community. It is hoped that researchers can emulate the attitude of PHBS that are directly applied together rural communities.

Healthy lifestyle which can be exemplified is how to perform aseptic techniques during the processing plant medicinal plant. Some forms of PHBs that can be done together with the community when assistance is to clean hands before and after work using hand sanitizer, reducing contamination of the material by covering the mouth and nose using a mask, cover the head hair using a cup or headgear, sterilize workspaces using tool fogging spray disinfectant, sterilizing drinking water, etc.

Empowerment third is the evaluation of program results. Program evaluation is needed to determine the achievement of the objectives of rural community development programs through PHBS that have been planned. Some of the criteria evaluated programs that have been described in program planning. Objectives The planned program is to produce a model of character education through the character of rural communities clean and healthy living. Results of character education can not appear directly in a short time through academic knowledge, but may be facilitated by conditioning a supportive environment.

Character education has been achieved is a positive behavioral change regarding some aspects of life in a person as a citizen of the rural community as a whole. Some indicators of

achievement of community empowerment in this research is the realization of the positive behavior of individual people who previously did not appear when the initial observation.

Positive behavior of individuals covering a religious character, democratic, tolerant, caring environment / social, honest, smart and tough. Each character has manifested itself can be described through parameters or indicators PHBS. Empowerment characters that have been built in rural communities economically weak among e.g.

1. Religious, the formation of character is built through a pattern of daily life while linking religious values. Community given understanding of the diversity of living things were created by God and is associated with the role and benefits of each. Communities assisted to discuss the merits of various plants that are around. Plants used for food consumption as vegetables, fruits, as well as medicinal plants that naturally have been provided by God the creator. Therefore, humans are required to maintain as a result of naturally self-cultivation.
2. Honest. Natural human instinct has an honest character, so its application in rural communities easily realized. However, the formation of this character should be linked through the use of the environment, especially in the surrounding of the medicinal plant that used productively and responsibly.
3. Care, the character is realized through the management of waste and waste. Solid waste sorted out between organic and plastic waste, then recycled and not disposed of carelessly. Liquid waste processed first using the building's septic tank gradually, or to clean up water to maintain the beauty and sustainability of the Unitary Republic of Indonesia.
4. Tolerance, respect those who play an active role in the public health movement.
5. Democratic. Demonstrate the ability to prevent the risk of disease, protect themselves from the threat of disease.
6. Courtesy. The responsibility of citizens to plant drugs (medicinal plant) growing, cultivating, caring for, cleaning up of pests and diseases.
7. Smart and Tough. Cultivating medicinal plant optimally to improve the economic value.

Therefore, in the evaluation of the program made the model through non-formal education. Outline the concept of character education model of rural communities through healthy behavior can be seen in Figure 1.

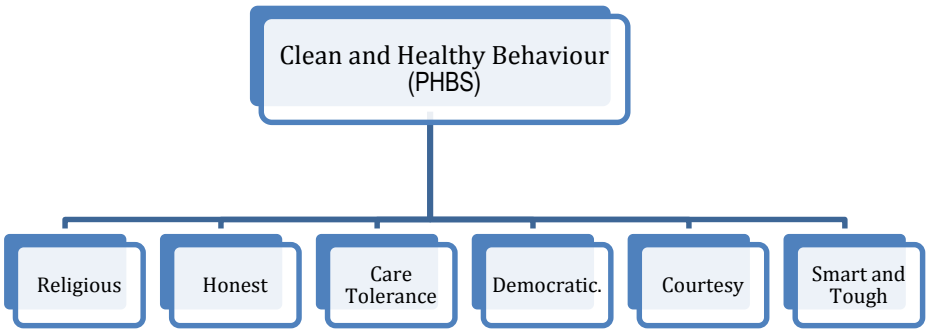

Figure 1. Model of Character Education Healthy Living Rural Communities in Malang

CONCLUSION

Based on the description of the results and the discussion above, it can be concluded as follows. 1) there were a difference feasibility herbal drink based on figures molds, 2) there are differences in anti-bacterial power of each species of plant herbal beverage ingredients, 3) Increased empowerment economically weak rural communities were implemented through

character education program is described as a clean and healthy living behavior. There were religious, honest, care, tolerance, democratic, courtesy, smart and tough.

Recommendation

The formation of character education to increase community empowerment weak economy should be facilitated through the medium of socialization, coaching, training, competition reserved healthy menus, healthy home race, and so forth.

REFERENCES

Alam, N. et al., 2011. Assessment of Antioxidant and Phenolic Compound Concentra-tions as well as Xanthine Oxidase and Tyrosinase Inhibitory Properties of Different Extracts of Pleurotus citrinopileatus Fruiting Bodies. *Mycobiology*, vol. 39, no. 1, pp.12–19.

Andersen B., Frisvad B., Søndergaard, J.C, Rasmussen, I.S., Lisbeth, S. et al., 2011. Associations between Fungal Species and Water-Damaged Building Materials. *Applied and Environmental Microbiology*, vol. 77, no. 12, pp.4180–4188.

Carmona-ribeiro, A.M., Dias, L. & Carrasco, D.M., 2014. Novel Formulations for Antimicrobial Peptides. *International Journal of Molecular Sciences*, vol. 15, pp.18040–18083.

Działo M., Justyna M., Urzula, K., Marta P., Jan S., and Anna K. 2016. The Potential of Plant Phenolics in Prevention and Therapy of Skin Disorders. *International Journal of Molecular Sciences*, vol. 17, pp.1–41.

Field, M.J. & Boat, T.F. 2012. *Effective Medicines*, Safe and effective medicines for children. Pediatric studies conducted under the Best Pharmaceuticals for Children Act and the Pediatric Research Equity Act. Washington, DC: The National Academies Press.

Fuursted, K., Marc S., Steen. H., Lotte. L., Skytt. A.P., Mette, D., and Kragh. T.M. 2016. Patients and methods. *Journal of Antimicrobial Chemotherapy*, (September), pp.3376–3380.

Hintz, T., Matthews, K.K. & Di, R., 2015. The Use of Plant Antimicrobial Compounds for Food Preservation. *BioMed Research International*, 2015, pp.2–12.

Katrina, M., and Endotoxin Levels in the Aftermath of Hurricane: A Pilot Project of Homes in New Orleans Undergoing Renovation.

Luk, A.J. & Simkin, P.A., 2005. Epidemiology of Hyperuricemia and Gout. ,*The American Journal Of Managed Care.* vol. 11, no. 15, pp.435–442.

Luzia, D.M.M. & Jorge, N., 2014. Study of antioxidant activity of non-conventional Brazilian fruits. , *J Food Sci Technol* . 51(June), pp.1167–1172.

Madigan, M.T., Martinko J.M., Parker J. 2012. *Brock Biology of Microorganism 13th Edition*. USA. Prentice-Hall International, Inc.

Moreno-hernández, C.L. et al., 2014. Effect of the Application of 1-Methylcyclopropene and Wax Emulsions on Proximate Analysis and Some Antioxidants of Soursop (*Annona muricata* L .). *The ScientificWorld Journal,* 2014, pp.1–7.

Nair S., Philip A., Michel D., Steve C., Anais P., Solomon M., Gemma L., Elizabeth D. P., Gauri G. 2016. population of non-typhoidal Salmonella. *Journal of Antimicrobial Chemotherapy*, 15(September), pp. 3400–3408.

National Standardization Agency. 2008. Microbial Contamination Testing Methods In Meat, eggs, and milk and dairy. *ISO 28* pp *971*.

Ostrosky-zeichner, L. 2016. 40 years of medical mycology at JAC. *Journal of Antimicro-bial Chemotherapy,* vol.71, pp.3327–3329.

Pandey, B.D. & Natarajan, K.A., 2015. *Microbiology For Minerals , Metals , Materials A. B. D. P. K. A. Natarajan*, ed., Taylor & Francis.

Review, C.E., 2011. Drug Therapy for Rheumatoid Arthritis in Adults : An Update. No. 55.

Review, C E., 2016. Management of Gout. Pp. 176.

Ribeiro A.M.C. and Carrasco L.D.M. 2014. Novel Formulations for Antimicrobial Peptides. *Int. J. Mol. Sci.* vol. 15. pp. 18040-18083

Ronan, B. O'Driscoll, Linda, C. H., and David, W.D. 2005. Mold sensitization is common amongst patients with severe asthma requiring multiple hospital admissions. *BMC Pulmonary Medicine*. vol. 5, no. 4, pp. 1-10

Rosenblum J.H., Hsiang H.Y., Igor M.D., Thomas C.D., Ramon M.M., Khristy J.T., Lin C.C. Bruce S.G., Joseph D.B. 2015. Environmental mold and mycotoxin exposures elicit specific cytokine and chemokine responses. *PLoS ONE*, vol. 10, no. 5, pp.1–22.

Stoev, S.D. & Denev, S.A. 2013. Porcine/chicken or human nephropathy as the result of joint mycotoxins interaction. *Toxins*, vol. 5, no.9, pp. 1503–1530.

Tana, H, Matthews K.K., and Rong, D. 2015. The Use of Plant Antimicrobial Compounds for Food Preservation. *BioMed Research International.* ID 246264, 12 pages

Voravuthikunchai, S. & Howe, P. 2014. Report on the Fifth International Conference on Natural Products for Health and Beauty (NATPRO 5) Held in Thailand, 6–8th May, 2014. *Nutrients*, vil. 6, pp.4115–4164. Available at: www.mdpi. com/journal/nutrients.

William, B.W. 2009. BERGEY'S MANUAL OF Systematic Bacteriology F. A. R. Paul De Vos, George M. Garrity, Dorothy Jones, Noel R. Krieg, Wolfgang Ludwig & K.-H. S. and W. B. Whitman, com/journal/nutrients. eds., Available at: www.springer.com.

Zhou G., Qing-shan S., Xiaoo-mo H., Xiao-bao X. 2015. The Three Bacterial Lines of Defense against Antimicrobial Agents. *International Journal of Molecular Sciences*, vil. 16, pp. 21711–21733.

Zuo G., Xin-juan Z., Jun H, Yu-qing L., and Gen-chun W. 2015. In vitro synergism of magnolol and honokiol in combination with antibacterial agents against clinical isolates of methicillin-resistant *Staphylococcus aureus* (MRSA). *BMC Comple-mentary and AlternativeMedicine,* pp.1–10. Available at: http://dx.doi.org/ 10.1186/s12906-015-0938-3.

The Professional Teachers' Supervision by Qomaruddin Boarding School Foundation at Smk Assa'adah Bungah Gresik

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Abstract: The presence of the professional teachers in the learning process is an absolute requirement in order to achieve the quality of education and graduates who are competent. The existence of a professional teacher cannot be separated from the role and the foundation program of education providers in teachers' supervising. Professional teachers have a strong influence in leading the learners who have character, intelligent, and competent. This study is aimed at explaining the focus, approach, and a teachers' supervision program conducted by the Qomaruddin islamic boarding school foundation Bungah Gresik on Assaadah vocational school teachers. The design of this study used a qualitative approach with the sites of study on SMK Assaadah Bungah Gresik supervised by the foundation of Qomaruddin boarding school. The data collection of this study is conducted through observation and interview with participating trustees and principals relating to the acts of supervision and teachers as the party supervised. The results of the study showed that (1) the focus of the teachers' supervision of SMK Assa'adahis conducted by the foundation of Qomaruddin boarding school is on strengthening the competence of the teacher's personality, to promote discipline, exemplary, and motivation to work. (2) the approach of the teachers' supervision of SMK Assaadah is conducted by using an artistic supervision approach. (3) the program of the teachers' supervision of SMK Assa'adah is carried out by: (a) Workshop of teachers' supervision at the beginning of school year, (b) the teaching supervision (c) the teachers' involving directly on the Halal bi Halal events and celebrating Haul for the founder of Islamic boarding school.

Keywords: supervision, islamic boarding school, vocational school teachers.

The quality of teachers affects the quality of learning and the quality of the results obtained by the students, which in turn affects to the overall achievement of the objectives of education. The function of the teachers in the learning activities is a leader who directs the learners to be able to learn in a planned, systematic, focused and optimized in order to achieve the learning objectives with competence and professional performance. The presence of professional teachers will give the education quality that is subsequently able to guide and deliver the learners become the human that has quality and independent capability. Professional teacher is implied by its four professional competence of teachers; scientific competence, pedagogical competence, personal competence and social competence. As described by Mantja (2010) that brought competency is the ability to implement something that is generated through education or training. The teachers' competence was owned by someone exhaustive and is an integral and interconnected with each other and supports each other.

The professional teachers' resource is an achievements that gained by the teacher through hard work and the support of environmental conditions, it also requires the improvement effort that conducted in a planned and systematic. Teachers who are education resources in schools need to continually grow and develop towards the better. In line with the qualified human resources, it is proved by the quality-oriented professional skills and excellence, the ability to

work in dynamic all-round conditions, the ability to find the alternative solutions, and development in the field of research. The characteristics of capabilities of the teachers are able to bring them growing and developing into professional.

The requirement of professional teachers requires the continuity in increasing the competence of the teachers in accordance with the development of science and technology, the potential development of learners, as well as the needs of the society. The duty of development is the responsibility of professional teacher as a person who is considered mature; however there are some teachers who need direction and guidance to reach the maturity or the professionalism of teachers. Similarly, Bafadal (2009) states that the professional development of teachers is an effort to help the teachers immature to mature, unprofessional become a professional, considering the maturity to manage their own and the fulfillment of qualifications is a characteristic of professionalism.

The National Education Minister number 16 of 2007 about Teachers' Academic Qualification Standards and Competencies confirmed the details of competencies that must be owned by the teachers of SMA/SMK. Pedagogical competence is the ability of educators to manage the learning process, include; 1) Mastering the characteristics of learners from the physical aspects, moral, spiritual, social, cultural, emotional, and intellectual. 2) Mastering the educational theories and principles of educational learning. 3) Developing a curriculum related to the subject of teaching. 4) Organizing educational learning. 5) Utilizing the information and communication technology for learning needs. 6) Facilitating the development of the students' potentials to actualize their potential. 7) Communicating effectively, empathetic and polite with learners. 8) Organizing the assessment and evaluation of processes and learning outcomes. 10) Utilizing the results of the assessment and evaluation for learning needs. 11) Takingthe action to improve the quality of reflective learning.

Scientific competence is also called academic competencies that can be obtained through the educational process. The details of academic competence as follows: 1) Mastering the material, structure, concept and mindset of scientific support of teaching subjects. 2) Mastering the standard competence and basic competences of the subjects taught. 3) Developing the teaching materials and learning materials creatively. 4) Developing the professionalism in a sustainable manner by taking action reflective. 5) Utilizing the information and communication technology to develop themselves. In line with the details of the competences above, Wijaya, (1992) states that the competences of professionalism to be possessed by the teacher are 1) mastering the teaching materials, 2) managing teaching and learning activities, 3) managing the classroom, 4) the use of media, 5) the control of foundation education, 6) managing the teaching and learning interactions, 7) assessing the learners' achievements, 8) providing guidance and career , 9) the administration of the school, and 10) understanding the principles of education and be able to interpret the results of the learning purposes.

Personality or personal competence is the performance of educators mature personality, mature, dignified and good character who can be role models for the students. The details of personal competence that must be possessed by the teachers as defined by Kemendikbud as follows: 1) Acting in accordance with religious norms, legal, social, and national culture of Indonesia. 2) Present yourself as a person who is honest, noble, and role models for the students and the society. 3) Present yourself as a person who is steady, stable, mature, wise and dignified. 4) show the work ethic, high level of responsibility, a sense of pride to be a teacher, and self-confidence. 5) Upholding the code of ethics of the teaching profession.

Social competence is the ability of educators to communicate and interact effectively with the students, teachers, staff, parents/guardians of the students, and the society. Kepmendiknas detailing the social competence of teachers as follows: (1) Be inclusive, acting objectively, and not discriminatory for consideration gender, religion, race, physical condition, family

background, and socioeconomic status, (2) to communicate effectively, empathetic and polite with educators, staff, parents, and society. (3) Adapting somewhere on duty throughout the territory of the Republic of Indonesia which have a social and cultural diversity. (4) Communicating with the community's own profession and other professions orally and in writing or other forms.

Institute of education providers in improving the professional teachers has mean in improving the quality of the teachers, quality of teaching, and the schools' excellence in providing education services. The principle of increasing professional teachers' competence is the assistance provided by the school in creating the conditions of the development of abstraction capability and commitment of teachers at the level of teachers' work professional. The efforts made by institute are through the organization of training and education to enrich the knowledge and teaching methods developed by the teacher. Other efforts include encouraging, assisting and facilitating teachers to improve the qualifications of educators, among others, by giving permission learning for unqualified Education of undergraduate even pastgraduate. The improving of the professional teachers can also be carried out through learning supervision program conducted by educational supervisors, principals and senior teachers as supervisors. Supervision of learning means as the professional assistance in the context of professional development of teachers is useful for teachers' development programs, providing motivation, and supervisors' control for teachers in carrying out the duties of education.

Islamic boarding school is the oldest educational institutions in Indonesia; initially concentrate on religious education that is transcendental by using *sorogan* method. Raharjo, (1985) defines that the boarding school is a religious institution to teach, develop, and disseminate knowledge of Islam. In the development, Islamic boarding schools more conducted the adoption system of school and organized the formal education as organized by the government. Lukens-Bull, (2004) describes that the boarding school is educational institution. At the first, it is shaped exclusively religious education, but nowadays many schools have adopted a secular education. One of the adoptions of organizing of formal education in boarding school is a vocational high school, along with the progress of education; adult vocational establishment in boarding school environment is growing. Some boarding schools make vocational high schools as an alternative model of development of education in schools.

Vocational high schools which are in boarding school environment cannot be released to the problems in the development of vocational school in general. The complexity of education is also a problem facing vocational, curriculum development issues, the integration of link and match, the means, and the professionalism of educators. A common problem on the effort on improving the professional competence of vocational teachers at the boarding school, among others: the paradigm of senior teachers and young teachers, where young teachers feel more energetic and higher mastery learning technologies while senior teachers feel more getting experiences. Secondly, the arrival of new educators has the scientific competencies required by SMK at the boarding school educational that have background in non-boarding. Third, the teachers lacks of motivation to conduct research and produce scientific work as a lecturer at the college. Fourth, the teachers lack of availability on the productive subjects, both in terms of quantity and quality. Fifth, there are psychological problems for school leaders in the management of educators in the background of family 'dalem'. Sixth, there are others teachers' profession other than professional educators.

It is different with the most vocational high school that existed on the boarding schools' environement, SMK Assa'adah Bungah Gresik has good competent teachers and good achievement, as a new relatively school has been able to align with the others vocational school in Gresik regency. The achievements have been obtained by the students and teachers, including

cooperation with various businesses in the Gresik industrial area. The success of learning under the guidance of professional teachers cannot be separated from the supervisions' efforts that carried out by the teacher and the school principal of Qomaruddin boarding school foundation. The teachers' supervision that conducted by the foundation of boarding school oriented establishments noble vision and mission by using an approach that has been designed based on the psychology teacher and a variety of supervision techniques in accordance with the conditions of teachers and learning situations.

Referring to the efforts of professional teachers' supervision has been a lot of efforts carried out by the government, through the teacher certification program, facilitating discussion of subject teachers and teachers' training. Boarding school is an education provider also conducts the teachers' supervision besides conducting by the principal through the learning supervision program. Based on the context above, this study was designed as a qualitative research that aimed at: describing the orientation, approach and the implementation of vocational teachers' supervision conducted by the foundation of Qomarudin Bungah Gresik Boarding School.

This study used a qualitative approach. Referring to Moleong (2002) explains that qualitative research with phenomenological approach that is used to analyze the existing symptoms of a problem. The goal of the case study can be humans, events, settings, and documentation. (Moleong, 2002). This research was conducted to reveal the phenomenon of teachers' supervision conducted by the education section of the foundation of Qomaruddin boarding school at vocational high schools Bungah Gresik, include; descriptive overview, roles, functions, and activities. The presence of the researchers is to reveal and give meaning on events and happenings of overall the teachers' supervision phenomenon as a key instrument.

This study was conducted in vocational high schools Assaadah Bungah Gresik which is under the management of the boarding school Qomaruddin. Researcher carried out collecting data by observation, interview, documentation study as suggested by Bogdan and Biklen, (1998), Mantja, (2008) and Sugiono, (2010) as follows: (1) Indepth interviewing, (2) participant observation, and (3) study of documents.

The data collected were analyzed with componential analysis techniques and themes. The processes include processing, organizing, splitting and synthesis of data and find out the patterns, the important disclosure, and the final determination related to what is being reported. Researcher conducted as suggested by Nasution (1992) as follows: (1) performing the data reduction, (2) displaying the data, and (3) taking the conclusions/verification. The conclusion gained by the researcher through the verification (proof) directly during the study, one of them through finding new data and conducting the *Inter-Subjective Consensus* to ensure conformability.

RESULTS AND DISCUSSION

The efforts that have been conducted by the educational part of the foundation of Qomaruddin boarding school in vocational teachers' supervision are part of the vision and mission boarding school to pass on and preserve the teachings of Islam ahlussunnah wal Jamaah. Providing the education in the environment of Qomaruddin are boarding school in the corridor of Islamic development which is believed and practiced. Qomaruddin boarding school is one of the old boarding schools in East Java been established in 1775, as a religious institution has produced many scholars and religious teachers who preach Islam in various parts of the archipelago, teachers and students that also actively involved in the struggle for independence of the Republic of Indonesia. Nowadays, the concentration of Qomaruddin

boarding school is engaged in education by opening education levels started from early childhood education till college, including managing vocational schools (SMK) Assaadah.

The Focus of the Supervision

Based on the context above, the vocational teacher is directed in the teacher's ability to internalize the values and spirit of Islam moderate in the behavior of the learners. Therefore, the focus of vocational teachers' supervision conducted by the educational part is the competence of the teacher's personality, however still considers to the social competence, scientific, and pedagogic. The focus of the teachers' supervision on the competence of the teacher's personality can be characterized as follows: (1) prioritizing loyalty, (2) establishing the discipline, (3) confirming exemplary, (4) increasing the dedication of teachers in teaching, and (5) the motivation to work. In line with the findings of the research is presented by Glickman (1981) on consideration of supervisors in determining the orientation of development, namely: (1) the high of the teacher's commitment that characterized by: close attention to the learners, have a lot of time for self-development and learners, as well as having attention to the other interests is greater, (2) the high of the teacher's ability to think abstractly that characterized by: the ability of the teachers to manage teaching, clarify the problems of teaching (management, discipline, organization and students' interest), determine the alternative solutions, and then plan their actions.

The performance of Assaadah vocational teachers is expected in line with the basic concept of "mabadi' khoiru ummah" the movement becomes a best individual to create an exemplary society that proclaimed by Nahdlatul Ulama through five principles teaching; 1) As-shidq, always true in words, attitudes, and actions, 2) Al-Amanah, trustworthy, 3) At-taawun, helping, 4) Al-adalah, behave fairly, and 5) Al-istiqomah, sustainable. Those five basic principles to guide Nahdlatul Ulama society in implementing the activities of the both as individuals and in the context of the organization, which aims to create an independent and superior personal where finally able to make a model group or organization for others. As a part of the Nahdlatul Ulama, Assaadah vocational teachers have an obligation to carry out the five principles into the best private under the direction and guidance of the boarding school education section. This is the basis focus of teachers' supervision on personal competence.

Focus on the competence of the teacher's personality does not mean not paying attention to the improvement of other competencies, such as scientific and pedagogic competence, but competence is also be part of the supervision process conducted by the boarding school foundation. As Neagley, (1980) explains that the development of the teachers' competence is not be defined narrowly and simple, which only emphasizes on the supervision of knowledge and teachers' teaching skills, but moreover, it is to increase the commitment or willingness or motivation of teachers, it would be an effect on improving the ability and motivation of teachers, and the quality of teaching will be better.

The Supervision Approach

Vocational teachers' supervision approach that conducted by the education section of the Qomaruddin boarding school foundation is using an artistic approach. Indications of that approach are; (1) the supervisor uses a flexible approach adapted to the conditions of teachers and teaching requirements, b) the presence of a supervisor is not formal, c) supervisor emphasizes family relations, d) there are regular reports relating to the activities of teachers that must be submitted by school to the supervisor. This finding is in line with the results of Sergiovanni's research (1991) which divides the supervision of teaching approach in scientific

approaches, artistic approaches, and clinical supervision. This artistic approach gives space diversity to the teachers in conducting the teaching process.

The findings in the field explained that the presence of the supervisor of the foundation is often carried out without any prior appointment, he/she was present in the class used as sampling and carried out observation on the teaching process, then followed by a discussion with the teacher that discussed about the learning materials and the development of student learning. Supervisor presents itself as a person who is not patronizing but by giving questions as a stimulus of discussion, giving awards to the teachers who are being supervised by the expressions joke, so that teachers do not feel inspected and supervised while the material would be submitted by the supervisor can be received well by teachers in supervision.

On the other hand, the teachers give portfolio report to the foundation of boarding school on each semester as performance reports. The duties is started at the beginning of the semester in which all teachers were presented in the workshop to increase the teachers' competence, which in the activities are given materials related to the teachers' competence, motivation, it is also explained about all the duties and responsibilities that must be implemented by the teacher for one semester to the next. The achievement of the results of the workshop is the respective employment contracts of each teacher in the form of learning courses program on a semester, where this planning becomes a performance report at the end of the semester, which should be reported in the form of portfolio to the foundation of boarding school. This reporting is similar to a scientific approach referring to Sahertian (2000), which explains that the scientific approach has a characteristic as follows: (1) implemented in a planned and sustainable, (2) the systematic by using procedures and certain techniques, (3) using the instrument of data collection, and (4) there is an objective data obtained from the real situation.

The Implementation of Supervision

The implementation of Assaadah vocational school teachers' supervision that conducted by educational part of Qomaruddin Islamic boarding school foundation is in the forms of activities; 1. Workshop of the teachers' supervision at the beginning of the school year, this event is intended to provide an overview of work for a year, giving a new motivation for teachers, and finishing by the planning of implementation of learning by each teacher. Workshop usually presented experts from outside the boarding school environment, for example, experts in the field of business, expert in learning, and motivator. 2. Haul Ulama for the founderof Qomaruddin boarding school, held on three times a year, haul kyai Qomaruddin (founder of the boarding school), haul Kyai Sholeh II (the developer) and haul Kyai Hasyim Asy'ary (the founder of NU), Haul is the activity of remembering someone who has died in the form of religious rituals which contains common prayer and a religious lecture, which was attended by all students, parents, and alumni. All teachers are involved in this activity as a steering committee in order to reinforce the value of the teacher's personality. The haul speech is delivered by Ulama to celebrate a person's life, it is intended to get exemplary of the teachers in terms of depth of knowledge and morality, so that all teachers are involved felt as if the teachers come back giving spirit in performing teaching duties, remembered to always loyal to the boarding school, serving without strings attached to teach the students to be good people and knowledge. 3. Halal bilhalal, an annual event after the fasting of Ramadan, this activity has a value terbinanya intimacy between the teachers and families build unity and help each other. Through Halal Bihalal activities that organized by the foundation aims to establish the teachers in the spirit of unity and togetherness to develop the boarding school. The form of Halal Bihalal event is a speech about taking a lesson from this religious celebrating as a model of the teachers in carrying out the activities and teaching duties, it is continued with an informal event

"silaturrahim" and forgive one to each other. 4. Teaching supervision, the activities that conducted by the personal of Qomaruddin boarding school foundation in supervising the teachers individually.

Referring to Sahertian (2000) about supervision techniques can be divided into two parts: The technique that has Individual characteristic, which is a technique that implemented to serve a teacher individually. Then, the technique that has group characteristic, which is a technique for serving teachers do more than one teacher. Thus, there are two kinds of the implementation of Assaadah vocational teachers' supervision that carried out by the educational part of Qomaruddin boarding school foundation Bungah Gresik, there are: the group characteristic, such as; Workshop, Haul of the founder f boarding schools, and Halal bilhalal that implemented 5 times for a year. The teachers' supervision that has group characteristics affects the process of internalization of religious values, spirit of dedication, togetherness, motivation to work for Assaadah vocational school teachers, especially the influences on personality and social competence of teachers. Whilw, for the individual supervision is the technique of visiting classroom that conducted by the educational part of foundation that influences the improvement of learning process directly.

The success of teachers' supervision in Assaadah vocational teachers is not only caused by the role of the education section foundation, but the principal's role is also significant. As explained by Arikunto, (2004) that the principal who close to the school attached to school life, while the supervisors rarely come to school to implement the supervision. This condition also occurs in SMK Assaadah , where thethe part of education in the foundation of boarding school is relatively rare to carry out supervision to the teachers compared with the principal who are every day at school. Based on the data field, there is a division of duties between the education sections of foundation with the principal in the terms of individual supervision. The duties of the supervisor of the foundation emphasize on the teacher's personality, where its presence is an encouragement and motivation, while the learning technical is more conducted by the principal. Similarly, the teacher's response regarding to the presence of the supervisor of the boarding school foundation is a reminder whip and becomes a motivation to work to make it more spirit.

Referring to Wiyono et al (2014) finds that the teachers' supervision model effectively done through five stages, they are; needs analysis, preparation of supervision program, the implementation of supervision program, evaluation of supervision program, and follow-up the results of supervision. Overall the foundations of Qomaruddin boarding school in the teachers' supervision and education workforce as implementing a modern education management and creating a conducive environment for growth. It is conducted through religious ritual to enhance Amaliyah and Islamic tradition, as the force of cohesion among boarding school society. Similarly, the development of the school culture, carried out by the foundation of boarding school and the principal with the consolidation of the vision and mission of the school in accordance with the culture of Islamic moderate. The teachers' supervision is more emphasized on the development of vocational school that oriented graduates' competence, the priority is performed is an effort to motivate teachers for increasing te vocational teachers' commitment through mentoring and direct supervision by the education part of the boarding school.

CONCLUSION

Personal competence that possessed by vocational teachers requires the constant effort to do improvement and development. The education part of Islamic boarding school foundation and Assa'adah vocational school principal have been carrying out the supervision as an efforts to increase the professionalism of teachers. The efforts that made by the foundation of boarding

school in vocational teachers' supervision, among others; (a) Focus on the supervision of the teacher's personality competence besides the scientific competence and pedagogical competence. (b) The teachers' supervision approach that used is an artistic approach. (c) The implementation of teachers' supervision through: (1) Workshop on improvement of the professional teachers' competence at the beginning of each school year. 2) religious rituals of celebrating Haul for the founder of islamic boarding school, the prayer activities and the exemplary speech of Kyai, (3) religious rituals of Halal Bihalal, speech about the advantages of silaturrahim, forgiving one to each other, and build togetherness, (4) the teaching supervision.

REFERENCES

Bafadal, I. 2009. *Peningkatan Profesionalisme Guru Sekolah Dasar.* Jakarta: Bumi Aksara.

Bogdan, R. C. dan Biklen, S. K. 1998. *Qualitative Research for Education: An Introduction to Theory and Methods*. New York: Allyn and Bacon, A Viacom Company.

Glickman, C. D. 1981. *Developmental Supervision : Alternative practice for helping teachers improve instruction.* Virginia : ASCD.

Kemendiknas, 2011. *Buku : Pedoman Penilaian pengembangan Keprofesian berkelanjutan (PKB)*. Pusat Pengembangan Profesi Pendidik, Badan PSDMP dan PMP.

Keputusan Musyawarah Nasional IV Robithotul Maahidil Islamiyah, tahun 1994.

Lukens-Bull, R. A. Tanpa Tahun. *Jihad Ala Pesantren, Di Mata Antropolog Amerika*. *Terjemaan Mas'ud, Abdurrahman. 2004.* Yogjakarta. Gama Media.

Mantja, W. 2002. *Manajemen pendidikan dan supervisi pengajaran*. Malang: Wineka Media.

Mantja, W. 2010. *Profesionalisasi tenaga Kependidikan: Manajemen Pendidikan dan Supervisi Pendidikan.* Malang: Elang Mas.

Mastuhu, 1994. *Dinamika Sistem Pendidikan Pesantren,* Jakarta: INIS.

Moleong, L. J. 2007. *Metodologi Penelitian Kualitatif (Edisi Revisi)*. Bandung: PT. Remaja Rosdakarya.

Nasution, S. 2003. *Metode Penelitian Naturalistik Kualitatif*. Bandung: PT. Tarsito.

Oliva, P. F. 1984. *Supervision for today' School*. New York: Longman

Rahardjo, M. D. 1985. *Pergulatan Dunia Pesantren Membangun dari Bawah*, Jakarta: P3M.

Sahertian, P. A. 2000. *Konsep Dasar dan Teknik Supervisi Pendidikan dalam Rangka Pengembangan Sumberdaya Manusia*. Jakarta: PT. Rineka Cipta.

Sergiovanni, T. J., Chairperson. (Eds.), 1982. *Supervision of Teaching.* Virginia: ASCD.

Soetopo, H. 2010. *Prilaku Organisasi : teori dan praktek di bidang pendidikan.* Bandung: Rosdakarya.

Sugiyono. 2010. *Metode Penelitian Kuantitatif Kualitatif dan R & D. Bandung:* Alfabeta.

Universitas Negeri Malang, 2010. P*edoman penulisan Karya Ilmiyah: Skripsi, Tesis, Disertasi, Artikel, Makalah, Tugas Akhir, Laporan Penelitian*. Malang: Universitas Negeri Malang.

Wiyono, B. B., Kusmintardjo, dan Supriyanto, A. 2014. *Grand Design Model Pembinaan Profesional Guru Berbasis Diterminan Kinerja Guru.* Jurnal Ilmu Pendidikan. Desember 2014/20 (2) Lembaga Pendidikan Tenaga kependidikan dan Ikatan Sarjana Pendidikan Indonesia.

Yin, R. K. 2002. *Studi Kasus Desain & Metode.* Terjemahan oleh M. Djauzi Mudzakir. Jakarta: PT. RajaGrafindo Persada.

Zamakhsyari, D. 1983. *Tradisi Pesantren Studi tentang Pandangan Hidup Kyai,* LP3S, Jakarta, LP3ES

Teaching Material Development 0f Learning and Teaching Course Through Lesson Study Application for University Students

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Abstract: The purposes of this development are to (1) create valid, interesting, practical and effective teaching material products for learning and teaching course; (2) to apply an approach of Dick and Carey model system in a teaching material for Learning and Teaching course; (3) implement descriptive learning theory and prescriptive learning theory in Bahasa Indonesia teaching and learning at Junior High School, Senior High School and Vocational High School; and (4) apply lesson study as a learning model for Learning and Teaching course. The data was collected using product validation questionnaire by content experts, language experts, and design experts as well as university student response questionnaire to obtain data on the aspects of attractiveness, practicality and product effectiveness developed. The data was analyzed by using descriptive statistic and t-test with assistance of SSPS *for windows* version 22,0 program. The research results are that (1) the validation by content experts, language experts, and design experts obtained very valid criteria, (91%); (2) the design of teaching material prepared by an approach of Dick and Carey model system tested in extensive field and analyzed through descriptive statistic obtained very practical criteria (93%); (3) the implementation of teaching and learning theory in the Bahasa Indonesia subject at Junior High School, Senior High School and Vocational High School extensive field and analyzed through descriptive statistic obtained very practical criteria (97%), as well as the application of *lesson study* as learning model and analyzed through descriptive statistic obtained very effective criteria (83%). Results of t-test with assistance of SSPS *for windows* version 22,0 program showed the significant increase of learning outcomes in experimental group using the products, namely 0.000<0,05. Results of the development could be disseminated in all Department / Study Program in LPTK FKIP Undana because the teaching and learning theory is a formal shield for fulfillment of pedagogical and professional competencies for university students as prospective leaner teachers. The product development is directed to accommodate the language learning for prospective teachers with early age and elementary school children as the learners.

Keywords: learning, teaching, leaner teachers, implementation, lesson study.

Learning and Teaching and is a course covering overall course with characteristic of Faculty and Study Program competencies. A number of descriptive theories giving base for learning, in particular is the first foundation for university students of Senior High School and Vocational High School graduations choosing LPTK as their life breeding in the future. As the main axis for learning leading to the learning achievement of prospective leaner teachers, this subject obtains less important portion. Theoretical- informative pure sciences are still the superstars in LPTK which should be led pragmatically-applicative studies presented by this subject. The development purpose is to create valid, interesting, practical and effective teaching material products. The teaching material products are designed with properties of pragmatically-applicative to improve university students' abilities, as the prospective learner teachers of Bahasa Indonesia in Junior High School, Senior High School and Vocational High School.

Using an approach of Dick and Carey (2015) model system, the teaching material products have specification on the implementation of prescriptive learning theory (Bruner, 1884 in Gredler, 1991 and Degeng, 2012) through the application of *lesson study*. Selection of learning strategy in order to maintain applicative competencies for learner teachers is still dominated by a model having the core at the lecturers. The students as Z generation and born in digital era, require collaborative digital learning atmosphere, and not the individual one; this leads the students to find out problems and then solve the problems with their networks, not that they are given problems and solved them by lecturing from the lecturers.

Lesson study is developed as learning model, therefore its characteristics are collaborative, contextual and simulative, as well as looking for, finding out, and solving problems in learning groups. *Lesson study* that was initiated by (Lewwis and Perry (2012) focuses on the learning, however also improves learning quality conducted by the teachers so that this can effect on the students' learning outcomes. The lesson study activity is used to conduct initial and extensive field tests to measure product effectiveness aspects. In its implementation, the developers did not only present the learning in the nuance of lesson study, but also based on the small group discussion as a formation of learning community. Squire (2010) defined the learning community "as groups of teachers who continually inquire into their practice and, as a result, discover, create, and negotiate new meanings that improve their practice". The important issues expressed by this limits are continually inquiring, discovering, creating, and negotiating new meanings to be applied in the learning. Squire (2010) then stated that through the learning community, the teachers (including the students as prospective teachers) will be very qualified in the case of: (1) making connection of gaps among theories in campus and practice at school; (2) creating room to discuss problems in learning implementation practices; (3) improving retention of learner teachers; (4) sustaining pedagogical practice and theoretical concept of sciences; (5) guiding transformative learning; and (6) improving students' learning.

Then Widjayanti (without year) described stages of lesson study namely: plan: learning activity from teaching, do: learning activity concerning teaching, and see: learning activity for teaching. In the plan stage, the students conducted learning process concerning the unit learning that was being discussed. It was conducted by noting personal weakness and superiorities, hearing at group member weakness and superiorities, sharing opinions about each weakness and superiorities.

In the *do* stage, the students decided to select any problems considered to be urgent to understand in general concerning the materials to be discussed. The urgent problems are presented in class discussion. Each group proposed one problem considered to be urgent concerning the materials to be discussed, so that it could be the moment to learn about teaching.

In the *see* stage, along with the advisor lecturers, the stage learning for learning substantively discussed important issues that could be understood and could not be understood by the students. The three stages of lesson study that were conducted continually provide easiness for the students to understand didactical, methodical and psychological aspects as pedagogical profession for prospective teachers.

METHODS

Development Model

The development model uses a system approach initiated by Dick and Carey (2015) through 10 inter-connected steps with the purposes to: identify and observe various things related to the products developed; develop products based on initial study findings; validate

products; test product to be used in learning through natural setting; and conduct revision based on validation and field trial results. One of the development contributions is to provide teaching material with lesson study application to bridge gaps between research results and practice (Setyosari, 2007 in Adi, 2010).

The development of teaching materials follow Dick and Carey (2015) model outlining on the following teaching material criteria: (1) attractive, (2) content well-adjusted to special purposes of learning, (3) well-ordered, (4) having guidelines of teaching material use, (5) having practical questions, (6) having practical answers, (7) having tests, (8) having guidelines of leaners' progress, and (9) having guidelines for leaners leading to the following activity. The development of teaching materials followed the Dick and Carey (2015) model uses a system approach, because it is concerned on the relation among each component. The system approach can also enlarge an opportunity of all variable integration affecting on the learning in learning design.

Selection of Dick & Carey (2015) model is based on some reasons, as follows;

1. Meeting four characteristics that should be possessed in development of teaching materials, namely: (a) referring at purposes, (b) having conformity with the purposes, (c) systematically, (d) having guidelines on the evaluation (Miarso, 1987, in Harijanto, 2007); it also meets three main components of learning theory, such as; method, condition and results (Reigeluth, 1992, in Harijanto, 2007);
2. Using a system approach through complete steps and can be used to design the learning, both classically and individually. The learner tasks are as learning designers, implementers and assessors of learning activity results (Miarso, 1987, in Harijanto, 2007). The development results of teaching materials are the cooperation results between learning designer experts, subject content experts, media experts and other experts related to the learning; and
3. It can be used for the development of teaching materials either in verbal information, intellectual skill, or psych motoric and behavior skill fields, so that it is considered to be relevant for Teaching and Learning subject.

Development Procedure

The development steps of teaching materials followed Dick and Carey (2015) model are as follow: (1) identifying learning objectives, (2) analyzing learning, (3) analyzing the learning and context, (4) formulating learning objectives, (5) developing the test items, (6) developing learning strategies, (7) developing and selecting the content of learning program , (8) designing and implementing formative evaluation, (9) revising learning package, and (10) designing and implementing summative evaluation.

The 10-steps development initiated by Dick and Carey (2015) in this development is elaborated into 5 stages of development namely (a) the preliminary study stage including identifying learning objectives, analyzing learning, and identifying early behaviors; (b) the development stage including formulating learning objectives, developing test items, and developing learning strategies; (c) the preparation stage of teaching material products including developing learning program content as well as designing and conducting evaluation; (d) the trial stage of teaching material products is the stage to revise learning package; and (e) the data analysis stage.

Product Trial

Trial Design

For the purpose of trial on the development results of teaching materials for Teaching and Learning subject course, it was conducted three times. First, it was product validation test by 3 experts namely content, language, and design experts. The second test was the initial field test conducted on 6 students participating in the Teaching and Learning subject course. The third test was a major field test conducted on 26 college students participating in the even semester of 2015/2016 academic year.

The trials were conducted to determine the validity, the attractiveness, practicality, and effectiveness of the products developed. Effectiveness test was conducted on two aspects, namely the activity and results of student learning. The test was conducted in the form of a questionnaire referring at textbooks valuation principles, as cited by Muljono (2007). First, the eligibility component contents include (1) Competency Standards that are presented implicitly; (2) Basic Competencies that are presented implicitly; (3) Compliance of teaching material content with KD and SK. Second, the presentation components include (1) a table of contents; (2) the purposes of each chapter; (3) the concept map / epitome; (4) keywords; (5) practice questions; and (6) bibliography. Third, graphical components include: (1) The book covers; (2) the book contents; (3) the legibility; (4) printing quality; (5) the physical strength of books, such as the type of paper, binding quality.

Trial Subject

First product trial subject to validate teaching material products consist of content experts, language experts, and learning design experts. The three experts above are selected based on the validator criteria referring at BSNP (2007). Criteria of teaching book assessors are (1) having minimal education degree of S2 (master study); (2) having teaching experiences minimally two years at its subject science; (3) willing to follow overall assessment process; (4) willing to keep confidentiality of assessment process and results; and (5) not an author or book editor that is assessed. The following trial subjects are students in department of Language and Art Education, Study Program of Indonesian Letter and Language Education, FKIP Undana, the participants of Teaching and Learning subject course.

Type of Data

Data in the form of score was obtained by list of check and content by the content expert, language expert, learning design expert. There are two types of data, namely qualitative data as verbal data recommended by the content expert, language expert, and design expert, as well as the students. The quantitative data was obtained from the score calculation of expert validation questionnaire and student response questionnaires. The data collected through a series of trials were then differed according to their function, as follow (a) the data to test product validation, namely score and review by the experts, (b) the data to know the attractiveness and practicality of teaching material products namely score and recommendation for limited trials and extensive field test, (c) the data to know the effectiveness of teaching material products namely the score that were obtained through lesson study activity and results of Unit I-VIII formative test in initial and extensive field tests.

Data Collection Instruments

Purposes	Aspects that are assessed	Instruments used	Data observed	Respondents involved
Feasibility of Teaching Material Products of Teaching and Learning subject course through *Lesson Study* Model	Product Validation	Validation Sheets	Product Validation	Content Expert Language Expert Learning Design Expert
	Product Attractiveness	Questionnaires	Response by Students as Products' Users	Students
	Product Practicality	Questionnaires	Response by Students as Products' Users	Students
	Product Effectiveness	Assessment Sheets	Student Learning Outcomes	Students
		Observation Sheets	*Lesson Study* activity	Lecturers

Preparation of validation and trial instruments was initiated by compiling grating instruments. The grating instruments include aspects of assessment developed into an instrument indicator in the form of questionnaires using *5 point Likert Scale* with the interpretation as follows:

a. Score 5 (very practical / very well-adjusted / very attractive / very effective)
b. Score 4 (practical / well-adjusted / attractive / effective)
c. Score 3 (quite practical / quite well-adjusted / quite attractive / quite effective)
d. Score 2 (less practical / less well-adjusted / less attractive / less effective)
e. Score 1 (not practical / not well-adjusted / not attractive / not effective)

Data Analysis Technique

The data analysis to know the product validity, attractiveness, practicality, and effectiveness was conducted by using descriptive statistic. Meanwhile, the final product testing was conducted in the form of experimental design through *The Randomized Pretest-Posttest Control Group Design* model. The researchers followed the second design of this model as quasi experimental (Sukmadinata, 2013).

RESULTS AND DISCUSSION

Presentation of Trial Data

Presentation of trial data is detailed into 3 sections, namely (a) validation by content, language, and design experts; (b) initial field test, and (c) extensive field test. The teaching material products were validated by three experts, namely content expert, language expert, and design expert. The expert validation was conducted after the products were completely developed before it was conducted trial to the students.

Expert Validation Results

Content Expert Validation

Review of subject content expert is to obtain data in the forms of assessment, opinions, and recommendations on the textual content of teaching materials, models, and learning guides. There are two aspects of content expert assessment that are developed into 20 questions, namely the content assessment aspect presenting 6 questions and product completeness assessment aspects presenting 14 questions. There are five options available for answer choices each of which was given a score of 5, 4, 3, 2 and 1 for a positive statement. The content assessment aspects obtain total score of 28 out of a maximum score of 30, and the product completeness aspects obtain a total score of 70 out of a maximum score of 70.

Language Expert Validation

Review of language expert is to obtain assessment, opinions, and recommendations on the presentation of materials, instruction, and questions, either practical or formative test in I-VIII unit product. There are two aspects of language expert assessment that are developed into 20 questions, namely the language assessment aspect presenting 10 questions and language learning assessment aspects presenting 14 questions. There are five options available for answer choices each of which was given a score of 5, 4, 3, 2 and 1 for a positive statement. The language assessment aspects obtain total score of 45 out of a maximum score of 50, and the product completeness aspects obtain a total score of 45 out of a maximum score of 50. Total of validation score by language expert is 90 from maximum score of 100.

Design Expert Validation

Review of design expert is to obtain assessment, opinions, and recommendations on the overall product designs. There are two aspects of design expert assessment that are developed into 20 questions, namely the content/material aspects presenting 10 questions as well as title and cover design aspects presenting 10 questions. There are five options available for answer choices each of which was given a score of 5, 4, 3, 2 and 1 for a positive statement. The material/content aspects obtain total score of 45 out of a maximum score of 50, and the title and cover design aspects obtain a total score of 40 out of a maximum score of 50. Total of validation score by design expert is 85 from maximum score of 100.

Combination analysis of expert validation results obtained mean score of 91 out of maximum score of 100 and percentage of 91%. Based on validity criteria that has been set up previously, so the teaching material products obtain "very valid" and feasible criteria to be used.

Data Analysis of Initial Field Test

Initial field test was conducted by six university students from experimental class with IPK categories of high, medium, and low, to obtain response of attractiveness, practicality, and effectiveness aspects of teaching material products that are developed. Student response for product attractiveness aspects obtained score of 44 out of maximum score of 50 or 88%, practical aspects of obtaining a score of 46 out of a maximum of 50 or 93%. The combined results of student responses on the product attractiveness and practicality aspects obtained an average score of 90 out of a maximum score of 100 and a percentage of 91%. The product effectiveness was conducted on two aspects, namely (a) students' activities during the learning

process by using the products. This data was obtained from the acquisition score of the 8th lesson study unit learning value; and (b) the student learning outcomes during the learning process was measured from the test results on eight formative learning units. The students' learning activity obtained a score of 86% and the learning outcomes of 81%. The combined analysis of these two aspects indicated that the learning by using the products was "highly effective" because it reached percentage of 83%.

Data Analysis of Extensive Field Test

The extensive field test was conducted in the experimental classes namely to 26 students. The product attractiveness aspects obtained score of 1.203 out of maximum score of 1.300 with a percentage of 93% indicating that the products developed met the criteria of "very attractive" to be used. The practicality aspect obtained score of 1.256 out of maximum score of 1.300 with a percentage of 97% indicating that the products developed met the criteria of "very practical" to be used. The product effectiveness aspect was measured through the data activity and learning outcomes that reached of 83%, which proved that the learning using the products developed acquired criteria of "very effective".

Data Analysis of Pre-test and Post-test Results

Final product testing was conducted in the form of experimental design through *The Randomized pretest-post-test control group design* model of the second model namely the quasi-experimental. In the experimental group, there was and percentage increased in the learning outcomes before using the products, namely by 866, or 33.31% and after using the product, it has increased to 1,994, or 76.69%. Thus, there was a percentage increase of learning outcome score of 43.38%. In learning control class, it was conducted by not using the products developed, the scores achievement for pre-test was 848 and post-test was 934. There was an increasing of learning outcomes by 3.30% but it was not significant assumed because the teaching material products that were developed were also read by the students in the class control.

Inferential Statistic Test

The data normality test used Kolmogorov-Smirnov test (K-S test), in which the data would be said to be normally distributed, if the value of K-S test result was > the significance level of 0,05. The test result by using *Statistical Product and Service Solution* (SPSS) version 22.0 program showed that the data was distributed normally, in which the K-S test result was 0,200 > 0,05 for *pre-test*, meanwhile for post-test, the K-S test result was 0,76 > 0,05. Homogeneity test was conducted to know whether the data in variable was homogenous or not. The test results that was used SPSS version 22.0 program, for *pre-test* and *post-test* data obtained homogenous data variant results, which the significance level of 0,487 >0,05 for *pre-test* data and 0,058>0,05 for *post-test* data.

REVIEW AND RECOMMENDATION

Product Review

1. The products are referred to as teaching materials for they present description on the teaching and learning materials, arranged systematically and selected according to the

purposes, as well as learning-oriented. The components developed include the content, presentation and graphically feasibility and after being validated, they obtain criteria of very valid, (91%);
2. Design of teaching materials prepared by the Dick and Carey model system approach was tested on an extensive field with descriptive statistics and obtained criteria of very attractive (93%);
3. Implementation of the teaching and learning theory in the a Indonesian Language field of study in Junior High School, Senior High School and Vocational High School on the extensive field tests with descriptive statistics obtained criteria of very practical (97%);
4. The learning using teaching materials through the lesson study application has been shown to be effective (83%);
5. The teaching materials are one of the solutions for lecturers' shortage with learning specifications.

Utilization Recommendation

1. The teaching and learning theories are universal in LPTK. These theories are the main access of learning achievement concerning didactic, methodical, pedagogical, and psychology in LPTK;
2. The behavioristic, cognitive, and constructive theories implemented into the Indonesia Language teaching and learning can be substituted throughout Study Programs in LPTK FKIP Undana.
3. The learning through the lesson study provides collaboration and synergy habits, because it is centered on the learning than teaching, learning concerning teaching and learning for learning.

Dissemination

1. Unit I-VIII: is developed through theoretical aspect discussion followed by implementation of lesson study of Indonesia Language subject course so that it can be applied for all study programs;
2. The *lesson study* model applied is very effective to bridge gaps of theory and practice of learning in LPTK and *stakeholders;* and
3. Growing the cultures of *inquiry, discovery, collaborative, and contextual*, since in the time of study in the university.

Product Development

1. Formulation of learning achievements through the teaching and learning course can be developed for Indonesia Lan learning at every level of education;
2. Making the Teaching and Learning course as the pivot of the entire courses characterized by LPTK from university, faculty, through study program levels in *puzzle* networking.

REFERENCES

Adi, S. 2010. *Pengembangan Bahan Ajar Tekstual Berbantuan Rekaman Audio Scaffolds Mata Pelajaran Bahasa Inggris Bagi Siswa Kelas VII SMP/MTS di Lingkungan Lembaga Pendidikan Ma'arif NU Sidoarjo*. Dissertation. Malang: State University of Malang.

Arifin, S. 2014. Pengembangan Kurikulum Pendidikan Tinggi sesui KKNI. Workshop Kurikulum Pendidikan Tinggi. Direktorat Belmawa-Dikti, (*Online*), (https://adpgsdindonesia.files.wordpress.com). Accessed on August 16th, 2016.

Bernardo, R. 2002. "*Lesson Study Research Project For All. Reflective Report"*. (*Online*) (http://www.tc.columbia.edu/centers/lessonstudy/doc/LSR.Campbell.pdf: Los Angeles: University of California. Accessed on August 5th, 2016.

Borang Akreditasi Program Studi Pendidikan Bahasa dan Sastra Indonesia FKIP Undana Tahun 2012.

Degeng, I.N.S. 1989. "Pengaruh Penstrukturan Isi Teks Ajar dan Strategi Belajar Terhadap Perolehan Belajar Mengingat Fakta dan Memahami Konsep". Article in the *Forum Penelitian Pendidikan* Journal, 6, (1), pp.74-91.

Degeng, I.N.S. 1998. *Mencari Pendekatan Baru Pemecahan Masalah Belajar*. Kuala Kencana: PT. Freeport Indonesia.

Degeng, I.N.S. 2013. *Ilmu Pembelajaran. Klasifikasi Variabel untuk Pengembangan Teori dan Penelitian*. Bandung: Penerbit Kalam Hidup.

Dick, Wa., Lou Carey, J.O. Carey. 2015. *The Systematic Design Of Instruction. Eight Edition*. United State of America: Pearson Education, Inc.Permissions Department.

Direktorat Jenderal Pendidikan Menengah.2013. *Prinsip Pembelajaran pada Kurikulum 2013*. (*Online*), (https://urip.files.wordpress.com>2014/01). Accessed on August 16th, 2016.

Direktorat Belmawa. 2014. *Panduan Penyusunan Capaian Pembelajaran Lulusan Program Studi*. (*Online*), belmawa.ristekdikti.go.id>dev>2015/11, Direktorat Jenderal Pendidikan Tinggi Kementerian Pendidikan dan Kebudayaan. Accessed on August 16th, 2016.

Direktorat Belmawa. Direktorat Jenderal Pendidikan Tinggi. Kementerian Pendidikan dan Kebudayaan. 2014. (*Online*), (lpm.walisongo.ac.id>uploads>2016/06). Accessed on August 16th, 2016.

Dwiyogo, W.D. 2013. *Media Pembelajaran*. Malang: State University of Malang.

Gredler, M. & Bell, E. 1991. *Belajar Dan Membelajarkan*. Jakarta: Penerbit CV Rajawali. Alihbahasa: Munandir: Diterjemahkan atas ijin khusus dari *McMillan Publishing Company*. Original book is entitled: *Learning and Instruction*. *Theory Into Practice*.

Harijanto, M. 2007. "Pengembangan Bahan Ajar untuk Pengingkatan Kualitas Pembelajaran Program Pendidikan Pembelajar Sekolah Dasar". Artikel dalam Jurnal *Didaktika*, Vol. 2 No. 1, Maret 2007, Hal. 219-220 . (*Online*) (https://utsurabaya.files.wordpress.com>…). Accessed on December 5th 2015)

Januszewski, A & Molenda, M. 2008. *Educational Technology*. New York: Lawrence Erlbaum Associates.

Lewis dan Perry. 2012. **"**Improving Teaching Does Improve Teachers: Evidence from Lesson Study*". Journal of Teacher Education 2012 63: 368 DOI:* (http://www.sagepub.com/journalsPermissions,nav). Accessed on July 20th, 2016)

Miarso, Y.H. 2007. *Menyemai Benih Teknologi Pendidikan*. Jakarta: Penerbit Kencana Prenada Media Group.

Muljono, P. 2007. Kegiatan Penilaian Buku Teks Pelajaran Pendidikan Dasar dan Menengah. Artikel dalam Buletin *BNP Vol. II/No. 1/Januari 2007 p. 18-19)*. (*Online*) (www.bsnp-indonesia.org>buletin). Accessed on August 25th, 2016.

Muchlis, M. 2008. Hakekat dan Fungsi Buku Teks. (*Online*), (http://www.masnur-muchlis.blogspot.com2008/10/4archieve.html). Accessed on November 3rd, 2016.

Newby, T.J, & Peggy, A.E. 2013. *"Behaviorism, Cognitivism, Constructivism: Comparing Critical Features From an Instructional Design Perspective"* by P.A. Ertmer and T.J. Newby is reprinted from Performance Improvement Quarterly, 6(4), 1993, pp.50-72. (*Online*) (northwestate.edu>files21143_ftp). Accessed on July 20th, 2016.

Ormrod, J.E. 2008. Edisi Keenam *Psikologi Pendidikan. Membantu Siswa Tumbuh dan Berkembang*. Jilid I. Jakarta: Penerbit Erlangga. Alihbahasa: Wahyuni Indiati, DKK. Editor: Rikard Rahmat. Copyright 2008 © by Pearson (Merrill Prentice Hall). Buku asli berjudul: *Sixth EditionEducational Psychology*. *Developing Learnes.*

Regulation of Minister of Education and Culture Number 69 of the year 2013 concerning Main Framework and Structure of Senior High School / *Madrasah Aliyah* Curriculum.

Regulation of Minister of Education and Culture Number 81A of the year 2013 concerning Implementation of Curriculum regulating concerning General Guidelines of Learning.

Rahimi, M. (without year). What do we want teaching-materials for in EFL teacher training programs. Article in *Asean EFL Journal* (*Online*), (www.asean-efl-journal.com>pta_oct_08,). Accessed on August 30th, 2016.

Richey, R. 1986. *The Theoretical and Conceptual Bases of Instructional Design*. Wayne State University. New York: Kogan Page, London/Nichols Publisihing.

Rubin & Munzenmaier. 2013. *Taxonomie for Learning, Teaching, and Assessing.* Iowa State Univercity Center for Excellence in Learning and Teaching, (http://www.celt.iastate,edu/pdfsdocs/teaching/RevisedBloomsHandout,pdf). Accessed on December 15th, 2015).

Santrock, J.W. 2013. Edisi Kedua. *Psikologi Pendidikan*. Fifth Edition. Jakarta: Penerbit Kencana. Alihbahasa: Tri Wibowo B.S. Original book is entitled: *Educational Psychology, 2nd Edition*. Mc Graw Hill Company, Inc.

Schunk, D.H. 2012. *Learning Theories. An Educational Perspective. Sixth Edition*. Copyright @ 2012, 2008, 2004, 2000, 1996, 1991 by Pearson Education, Inc., Publishing as Allyn & Bacon,501 Boylston Street, Boston, MA, 0211, (*Online*), (https://www.researchgate.net>file.Dostfi). Accessed on July 20th, 2016.

Siyamta, Y. 2013. Bidang Garapan Teknologi Pendidikan Menurut AECT 1994. (*Online*) www.academia.edu>Bidang_Garap_Tek. Accessed on March 6th, 2016.

Slavin, E.R. 2011. Ninth Edition I Volume. *Psikologi Pendidikan. Teori dan Praktik*. Jakarta: Penerbit PT Indeks. Translator: Marianto Samosir. Coordinator Editor: Bambang Sarwiji. English Copyright © 2009 *Pearson Education, Inc. Upper Saddle River, New Jersey* 07458. Original book is entitled: *Educational Psychology: Theory and Practice, 9thed.*

Squire, J.R. 2010. *Teacher Learning Communities. A Policy Research Brief produced by The National Council of Teachers of English*. (*Online*), (www.ncte.org>Journals>0202_nov2010). Accessed on July 20th, 2016).

Sugiyono. 2015. *Metode Penelitian Pendidikan. Pendekatan Kuantitatif, Kualitatif, dan R & D*. Bandung: Penerbit Alfabet.

Sukmadinata, N.S. 2013. *Metode Penelitian Pendidikan.* Research provides description, explanation, predication, innovation, and also theoretical base for education developers. Bandung: PT. Remaja Rosda Karya.

Susilo, H., Husnul C., Ridwan, J., Jumiati, Yuyun, D. & Sunarjo. 2009. *Lesson Study Berbasis Sekolah. Guru Konservatif Menuju Guru Inovatif*. Malang: Bayu Media Publishing.

Developer Team of High Education Curriculum Direktorate of Learning and DIKTI Students, 2015. *Buku Kurikulum Pendidikan Tinggi. Pengembangan Kurikulum Pendidikan Tinggi Mengacu KKNI & SN DIKTI*. (*Online*) (https://blog.vi.ac.id>files>2015/04). Accessed on August 16th, 2016.

Universitas Negeri Malang. 2010. *Pedoman Penulisan Karya ilmiah. Skripsi Tesis, Disertasi, Artikel, Makalah, Tugas Akhir Laporan Penelitian*. Fifth Edistion.

Weegar, M.A & Dina, P. 2012. "A Comparison of Two Theories of Learning Behaviorism and Constructivism as applied to Face-to-Face and online learning". Article on *E-Leader*

Manila. San Diego (*Online*), (www.g_cassa.com>papers>weegar). San Diego, CA, USA: National University. Accessed on July 20th 2016.

Weil, M. & Bruce, J. 1980. *Models of Teaching*. Second Edition.New Jersey: Prentice-Hall, Inc., Englewood Cliffs.

Widjayanti, Djamilah, B. Tanpa Tahun. "*Lesson Study*: Belajar Dari, Tentang, Dan Untuk Pembelajaran". Journal Article for *Phytagoras*, (*Online*), (http://www.foxitsoftware.com). Accessed on July 20th, 2016.

Modern Camera Connotations: Semiotics Profit Accounting in Perspective Roland Barthes

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Abstract: Accounting has been seen as a language because it has symbols or lexical characteristics of a language. With the symbol or the characteristics may imply that the accounting has units that contain meaning or words that can be identified in any language. Additionally, in accounting there are grammar refers to a set of common procedures used and followed in the preparation of the entire financial data for business purposes. Thus the expression of language in conveying the accounting information to be precise should fit between the meanings implied by the implied meaning. Therefore, in addition to aspects of measurement and usefulness, it is also necessary to analyze the accounting of reality represented. In other words the necessity of reviewing was accounting syntactically, pragmatics, and semantics. The purpose of this study was to determine how the meaning of profit in the study of semiotics Roland Barthes. Semiotics is the theory and analysis of various signs or symbols and meaning. Meaning of symbols profit in the financial statements which essentially is a perfect representation of the actual reality (denotation) turns up on the reader is in the form of connotations and myths. In earnings symbols are connotations, but the connotation is not there at this stage of the message itself but at this stage of the calculation of profit presented in the financial statements. Connotation emerged as a symbol of profit in the financial statements will be read by the public with their code. Two things that allow the profit symbol connotations or contain code. Connotations own profit symbols like the connotation of images in modern cameras proposed by Rolland Barthes. Barthes called the reality in the photos that we experience as real unreality. Known presented unreality because of what is past (temporal anteriority), was never able to meet category here-now, now here and is called real because the photography was not present but the presence spatial illusion.

Keywords: Semiotics, Semiotics Rolland Barthes

Accounting can be viewed as a language, because there are lexical and grammatical characteristics of a language that is inherent in accounting (Belkoui, 1980: 363). Both of these characteristics are the components of a language. This is reinforced by the statement Belkoui (1989: 282) who argued that "We Identifies two components of a language, symbols or characteristics lexical and grammatical rules". With the symbol or the characteristics may imply that the accounting has units which mean that can be identified in any language. The language of accounting using the term signs, symbols or documents such as income statements and statements of financial position (Errol, 1971: 53). One symbol of the much discussed is the symbol of profit. Symbol meaning a profit for each individual will be different. This is because every individual has the feeling, the experience, knowledge, or different backgrounds so as to produce a different perception. The statement was supported by Creswell (2009: 8) states that the perception or interpretation of individual shaped by feelings, experiences, and cultures inherent in the individual.

Additionally, in accounting there are grammar refers to a set of common procedures are used as guidelines in the preparation of financial statements for business purposes. Thus the expression of language in conveying the accounting information to be precise should fit between the meaning implied by the implied meaning. Therefore, in addition to aspects of measurement and usefulness, it is also necessary to analyze the accounting of reality represented. In other words, need to examine the accounting semiotic semantics, semiotics syntactic and pragmatic semiotics.

Understanding the semantics semiotics according to Errol (1971: 54) that "Semantic rules are roommates Reviews those relate to the symbols or signs employed in a language". From the definition it can be concluded that the semantic aspects decipher the sense of a sign within the meaning conveyed. The results of the company's performance embody the meaning that wants to be informed by a constituent. The meaning is conveyed through a form of income in the financial statements, the form will be interpreted again as a perception by the observer.

Perception of an accountant with a background in accounting held will be different to the perception of someone who does not have an accounting background, did not understand the accounting profession or someone who has a non-accountant. Which makes this study interesting is that we not only find profits with earnings meaning reduced load, but also a plurality of meanings profits arising from various viewpoints. Awareness and perceptions of each informant will show the diversity of the meaning of the symbol of profit.

Furthermore semiotics syntactically describes a combination of signs without regard to its meaning or relation to the behavior of the subject. It ignores the influence of semiotic syntactic consequences for subjects to interpret. Errol (1971: 55) states that "If communication is to be effective, it is no less necessary that the signs employed shall be related to one another in accordance with syntactical rules". This means that a symbol or a sign language will be linked with each other to produce effective communication. Symbol profit is the embodiment of a combination of different system of signs. A system of signs related to earnings is a symbol of revenues and expenses.

According to the statement in the perspective of the philosophy of Jacques Darrida (in Riduwan, 2010) states that the text is a trail, and the trail is history. This means that the meaning is inseparable from the profit of others that preceded trail meaning that income and expenses. Triyuwono (2007: 16) states that the interpretation of the accounting profit is highly dependent on the interpretation of the income and expenses as text predecessor that make it up. Income (income) and expense (expense) income is forming elements shown in the income statement.

The interpretation of the income and expenses by the competent authorities who have different backgrounds will produce a different concept. The concept of income and expenses cannot be explained universally by accounting users, because users of financial statements information, especially the income statement that includes about income and expenses are useful for individual users report that vary depending on the standpoint of where he assessed. The next aspect of semiotics is a pragmatic aspect. Pragmatic aspect is a branch of the theory of signs associated with the communication of a meaning or significance (Errol, 1971). To know the meaning of a sign it is necessary to elaborate on the origin of signs, utility signs by which to apply it, and the effect of the mark to those who interpret, within the limits of the subject's behavior. In this research, semiotic pragmatics is an overview of the influence of profit to human symbol in use or profit.

Semiotics pragmatic profit symbol affect the human senses and personal feelings. Symbol profits will be interpreted as a result of the perception by the observer, then the results of these perceptions can influence the observer as a user in the use of profit. In other words, the symbol is a form of income that can affect the wearer. The third aspect is the basic concept of semiotics. Preminger (in Sobur, 2001) states that semiotics is a theory of general philosophy that studies

on the mark. Signs will be discussed in this study is profit. Profit as a sign (sign) implies. Meaning contained in profit mark would be interpreted by each individual according to what they understand. A new thing to be emphasized is that accounting can be researched in the study of language. This statement is supported by Belkoui (1989: 282) states that "given the existence of both symbols and rules as major components, accounting may be defined as a priori as a language and researched as the basis of the theories' and methods in the study of language ". It is of course a new breath in the field of accounting.

Has previously been shown that accounting is a science in theory Thomas Khunn, he stated that "We examine the scientific grounds of accounting along the lines of Thomas S. Kuhn's work," The Structure of Scientific Revolutions ", the which describes the possible foundations of specific scientific disciplines and the steps that accompany scientific progress "(Thomas Khunn in Zuzsanna: 426). Besides accounting is also seen as an art, AICPA stated that the position of the arts in accounting contained in the word "creative skill and ability". This makes researchers was interested in conducting studies in the language of accounting, and see where the entrance of the language in accounting recall the product of accounting is financial statements that are arranged in the form of numbers.

Language in accounting entry as a science that is used to assess the symbols of accounting. To get the meaning of a symbol of the need to conduct more interviews in the humans involved in the use of these markers. Errol (1971: 55) states that "Meaning is something that is found within the human organism meanings are not found in words, statements, and message". The meaning of a symbol will not be obtained just by looking at the words, statement, or an explicit message, because the meaning emerges from human perception. Human taste sees engaging in an activity that led him to conclude its own meaning of a symbol.

It is interesting to examine the meaning of the symbol of profit using diverse perspectives. Viewpoint accountants and non-accountants profession will be able to give you an idea of plurality of meaning profit. The reality of each individual will become a reference and form a correct perception by each individual. The stark reality will make a profit has connotations or meanings that are not true. Wild, Subramanian, and Halsey (2005: 25) defines income as an indication of the profitability of the company. Thus the profit is considered as an indicator of the achievements and success of the company's performance. Earnings are presented in the financial statements is a symbol that represents a certain reality. But profit symbol now has a compound meaning. Profit not only has meaning denotation, but from a different point of profit would also have connotations.

This is reflected by the research conducted Dian (2010) states that doctors give a different interpretation of the profits. Benefits for the medical profession have four meanings. Profit in the form of savings that the goal are for the fulfillment of the material, "advantage" that has elements of spiritual belief in God in helping patients. Furthermore, namely "Profit" dignity concerning the good name of the profession in the eyes of society, the dignity of the people be respected. Last namely "Profit" inner satisfaction when seeing patients treated can be cured.

This proves that the meaning profit is not solely judged on the material. There is a sense of meaning behind the advantage for some professions. If there is a meaning behind the advantage it will have meaning behind the income and expenses. Thus the symbol of profit, revenue, and expenses actually has a plural meaning, has connotations, and has a lot of reality. Perceptions arising from various professions showed the diversity of the meaning of symbols profit from various viewpoints.

A similar study conducted Dian and Blue (2010), which reported an "Tri-Sari 'Profit' Foundation", which is "Earnings Matter" that exists because of the need to repay the debt, "Profit Social" show identity and guidelines that are held in conducting social activities and "Profit Memories" which indicates a memory or impression you want implanted. There are also

research and Rosidi Austina (2013) which states that the profit interpreted as flavor. Profit regardless of their shape and the material was transformed through his form is abstract, then form a flavor. The realization of this in the form of taste manifested in the form of gratitude for the gift of God and a sense of happiness or sense of satisfaction that can be perceived by one's inner eye.

Various opinions was regarding to earn and reality referential symbols as proposed Dian and Blue (2010) as well as Austina and Rosidi (2013), to present the chance appearance of a difference in interpretation in the communications space. The different interpretations of the course will lead to a lack of effectiveness of communication of information related to such profits. In a normal situation, the information will take users to the real truth and reality. However, the diversity of meanings profit making information submitted it brings users or the public in uncertainty.

Uncertainty caused by the readability will be resolved by understanding that a reality considered true only by each individual. This means that individuals give meaning based on the reality of each one being a reference. Truth symbol profit was essentially a perfect representation or analogy of the actual reality (denotation) turns up on the reader or observer is in the form connotations and myths. In earnings symbols are connotations, connotations emerged as a symbol of profit will be read by the public with their code. Code that appears on the symbol profits in different professions will have a different meaning. Even in the same profession but with the feeling, the experience, knowledge, and different expectations will result in different perceptions of the meaning of the symbol of profit.

It indicate where profit symbols have meaning plural, not always oriented to the size of the material, is not always the result of the matching of income and expenses. With different glasses can be seen clearly profit symbol meaning connotation or code contained in the profit symbol.

Rolland Barthes Semiotics will help researchers to analyze the meaning of denotation and connotation meaning perceived by informants. Not just that, in semiotics is Roland Barthes concepts signifier and signified. This is consistent with the study because researchers did not just want to see the meaning of profit but more than that is the meaning of the trail ahead of profit. Two orders of signification of Rolland Barthes considered suitable for use as an analysis of research data. By using the analysis of two orders of signification Roland Barthes can be illustrated how the meaning of denotation the basis of connotations.

Semiotics

Semiotics is the study of signs. This statement is in line with Preminger (in Sobur, 2001) which states that semiotics is a theory of general philosophy that studies on the mark. The concept of the sign to see that meaning arises when there is a relationship that is an association between the signified (marked / marker) with a signifier (the mark / marker). Thus the sign is the unity of a form with an idea signifier or the signified. A signifier (marker) without signified (signified) does not mean anything. This means a signified (marker) could not be delivered or captured off of the signifier (the marker). Signifier and the signified is unity as two sides of a sheet of paper.

Signified and signifier originally developed in the field of language, then flourished in arts and accounting. In the field of accounting one of the signs that represent a certain reality is profit. A reality will be interpreted differently by each individual based on knowledge, experience, and background owned. This is what ultimately becames guide researchers to examine and analyze the meaning of the symbols profit of a different reality, from the

standpoint of the accounting profession and professional non-accountants to use the science of semiotics.

Without a system of signs someone will not be able to communicate with each other. Signs not only manifested in the form of facial expressions, gestures, films, literary works such as music or the result of human culture itself, but also in the form of words or language. Accounting can be termed as a language, because it has the characteristics of lexical and grammatical (Belkoui, 1980: 363). From these explanations can be explained that every symbol in accounting has its own significance, or interpreted individually by each individual who observe and feel. Through a semiotic approach, researchers will try to dig the meaning of the symbol of profit.

This study did not aim to compare the meaning profits from the standpoint of professional accountants and non-accountants, but to know the meaning of denotation and connotation profits from various viewpoints profession. Therefore will be explained how to profit in the aspect of semantic, syntactic, and pragmatic. This is important because we do not just see a return in terms of measurement and usefulness, but also of the reality represented. All aspects studied will be spacious enough to remember the profession which is used as the data source is not just the accounting profession, but also non accountant's profession. Humans have a tendency to find meaning and trying to understand everything that is around. Thus human beings use their knowledge, experience and background to make sense of what is called the sign, the sign is exactly what will then be revealed through a research method using semiotic.

The message recipients or readers play a more active role in the model theory of semiotics. Semiotics rather chooses to represent the reader the sense of the message recipient's statement even for a photograph or image. Because it implies a greater degree of activity and also reading is something that we learn to do it, because it is determined by the reading of the cultural experience readers. Readers helped create the text's meaning by bringing the experiences, attitudes and emotions of the text. Signs are a physical thing, it could be perceived by the human senses that the sign refers to something beyond the sign itself, and relies on the introduction by the user that can be called a sign.

Semantics

Discuss semantics comes from Greek meaning to signify or define (Aminuddin, 2015: 15). Thus the content of understanding semantics is the study of meaning. Meaning as we know is part of our language, and therefore the semantics is part of lingistik. Errol (1971: 54) provide an understanding of related semantic aspects of "Semantic rules are roomates Reviews those relate to the symbols or signs employed in a language". This means that the semantic aspect decipher the sense of a sign within the meaning conveyed. The meaning of a mark shall be transmitted by humans with their language.

Language is basically something that is typical of every human being. Ernest Cassirer (in Aminuddin, 2015) refers to humans as animal symbolicium, ie, individuals who use language media in giving meaning and adorn life. Thus the human existence as an animal symbolicium be more significant than the existence of man as an individual who always thinks. This is because the symbol into the sustainability factor of human thinking. Symbols are not only allows people to think, but also hold interaction, social contact with reality outside itself. The results of the interaction were thought patterns that will be implemented into the surrounding world.

Seeing how the language is inherent in human life, it is not surprising that the language has a function that is quite complex and varied. One of the functions of language by Halliday

(in Aminuddin, 2015) is a heuristic means to explore, learn, and understand the world around. Both professional accountants and non-accountants has its own way to explore, learn, and understand the world around so that the language they conclude about the meaning of profit is also very diverse.

Language has the nature of vagueness; because the meaning is contained in a form of language only represent the reality to which it refers (Aminuddin, 2015: 19). This means that the language used in defining public accounting profit refers to the existing realities in the world. Similarly to other professions study of semantic aspects symbols have meaning income expenses may only apply to a reality that becomes a reference, and will be a different meaning if it is based on a different reality. This is what makes this study interesting that not only look at profit with earnings meaning reduced load, but a plurality of meanings profits from various viewpoints.

Syntactic

Syntactic rules of the language refer to the way in which the sign language can be related to one another. It ignores the influence of semiotic syntactic consequences for subjects to interpret. Errol (1971: 55) states that "If communication is to be effective, it is no less necessary that the signs employed shall be related to one another in accordance with syntactical rules". This means that a symbol or a sign language will be linked with each other to produce effective communication. Symbol profit is the embodiment of a combination of different system of signs. A system of signs related to earnings is a symbol of revenues and expenses.

It becomes a new picture in the syntactic rules of the language of accounting. Earnings, income, and expenses will be linked to the appropriate way to build relationships between the signs. In this study, these signs will be connected through the concept of two orders of signification Rolland Barthes, because in this concept is no component signified and signifier. According to the statement of perspective of the philosophy of Jacques Darrida (in Riduwan, 2010) states that the text is a trail, and the trail is history. This means that the meaning is inseparable from the profit of others that preceded trail meaning that income and expenses.

Triyuwono (2007: 16) states that the interpretation of the accounting profit is highly dependent on the interpretation of the income and expenses as text predecessor that make it up. Income (income) and expense (expense) income is forming elements shown in the income statement. The interpretation of the income and expenses by the competent authorities who have different backgrounds will produce a different concept. The concept of income and expenses cannot be explained universally by accounting users, because users of financial statements information, especially the income statement that includes about income and expenses are useful for individual users report that vary depending on the standpoint of where he assessed. Viewpoint accountants and non-accountants profession will also provide a plurality of meanings income and expenses when viewed from a different angle.

Pragmatics

Pragmatic aspect is a branch of the theory of signs associated with the communication of a meaning or significance (Errol, 1971). To know the meaning of a sign it is necessary to elaborate on the origin of signs, utility signs by which to apply it, and the effect of the mark to those who interpret, within the limits of the subject's behavior. In this research, semiotic pragmatics is an overview of the influence of profit to human symbol in use or profit. Semiotics pragmatic profit symbol affect the human senses and personal feelings. Symbol profits will be interpreted as a result of the perception by the observer, then the results of these perceptions

can influence the observer as a user in the use of profit. In other words, the symbol is a form of income that can affect the wearer.

Semiotics Rolland Barthes

Roland Barthes is structuralism thinker who practices models Saussure and linguistics and semiology (Sobur, 2001). However, during the 1960s he even liked the view of the post-structuralism. In 1967, Barthes published "The Death of the Author" in which he announced the event metaphorically: "Death" of the author as an authentic source of meaning for a given text. Barthes (1967) argues that every literary text has many meanings, and that the author is not the main source of the semantic content of the work.

Semiotics at the beginning of its appearance tends to stop limited to the meanings of denotative or denotation semiotics. As for Barthes, there is another meaning that is actually playing at a deeper level, such as at the level of connotation. At this level of thought Saussure heritage be developed by Barthes by dismantling practices connotation pertandaan level mark. Connotations for Barthes precisely denote something he claimed was a myth, and this myth has a certain connotation to ideology.

Rolland Barthes makes systematic models in analyzing the meaning of the signs through semiotic analysis (Sobur, 2001). From a semiotic analysis we not only know how the contents of the message to be delivered, but also how the message is created, what the symbols used to represent messages through the financial statements prepared in time for the community. Barthes theory focuses on the idea of the significance of the two phases, denotation and connotation (Sobur, 2001). Denotation is the objective definition of the word, whereas connotation is the subjective meaning or emotional. Barthes core theory is the idea of a two order of significance (two orders of signification).

Barthes explained the significance of the first stage is the relationship signifier and signified in a sign of the external reality. Barthes called it as a denotation. While the connotation of Barthes is the term used for the significance of the second stage. This illustrates the interactions that occur when the sign met with feelings or emotions of the reader and the values of the culture. In the second stage of significance related to the content, sign work through the myth (Sobur, 2001).

Barthes uses the concept of connotation to uncover hidden meanings. Connotations or meanings connotative meanings also called connotation, meaning emotive or evaluative meaning. This concept sets a two way meanings primitive appearance, namely denotative and connotative. At the denotative level, the signs were sticking mainly as primary natural meaning. But at the connotative level, the secondary stage comes the ideological meaning. Barthes argues how the most important myth is naturalizes history. It refers to the fact that the real myth is a product of a social class which has achieved dominance in a particular historical. Meaning that is distributed through the myth definitely brings a history with them, but the implementation as myth makes them try to deny and to show the meaning as natural and not historical or social.

REFERENCES

Aminuddin. 2015. *Semantik Pengantar Studi Tentang Makna.* Bandung: Sinar Baru Algensindo

Azwar, M. 2014. Teori Simulakrum Jean Baudrillard dan upaya pustakawan mengidentifikasi informasi realitas. *Jurnal Ilmu Perpustakaan & Kearsipan Khizanah Al-Hikmah*, Vol. 2 No. 1, hlm. 38-48.

Belkaoui, A.R. 1980. The Interprofessional Linguistic Communication of Accounting Concepts: An Experiment in Sociolinguistic. *Journal of Accounting Research* 18 (2) Autumn: 362-374.

Belkaoui, A. 1989. Accounting and Language. *Jurnal of accounting literature* vol.8 (281-292)

Burrell, G. & Morgan, G. 1979. *Sociological Paradigms and Organisational Analysis*. Ashgate Publishing Company. USA

Creswell, J.W. 2014. *Research Design Pendekatan Kualitatif, Kuantitatif, dan Mixed*. Yogyakarta : Pustaka Belajar

Cummings, L. 1999. *Pragmatic, A Multidiciplinary Perspective*. New York: Oxford University Press Inc.

Ikatan Akuntan Indonesia. 2012. *Standar Akuntansi Keuangan*. Jakarta : Salemba Empat

Indriantoro, N. 1999. Aliran-Aliran Pemikiran Alternatif dalam Akuntansi. *Jurnal Ekonomi dan Bisnis Indonesia,* Vol. 14 No.03.

Irianto, G. 2006. Dilema "Laba" dan Rerangka Teori Political Economy of Accounting (PEA), *TEMA*, Vol.7, No.2, hal 141-153

Iselin, E.R.. 1971. *The Objectives of Accounting in an Accounting Theory Based on Deductive Methodology*. St.Lucia. University of Queensland Press

Kamayanti, A. 2016. *Metodologi Penelitian Kualitatif Akuntansi.* Jakarta Selatan: Yayasan Rumah Peneleh

Kovacs, Z.I. 2012. Accounting-Profession vs Science. *Focus on Accounting*; hal 426-436.

Macintosh, N. B., Shearer, D. B. Thornton dan M. Welker. 2000. *Accounting as Simulacrum and Hyperreality: Perspectives on Income and Capital. Accounting Organization and Society* (25): 13-50.

Moleong, L.J.. 2004. *Metodologi Penelitian Kualitatif.* Bandung : PT.Remaja Rosda Karya

Muhajir, N.H.. 2002. *Metode Penelitian Kualitatif*. Rake Sarasin : Yogyakarta

Mursy, A.L. 2013. *Jurnal Akuntansi Multiparadigma*, Vol.4, No.2, hal 165-176

Ramlan, M. 2005. *Ilmu Bahasa Indonesia Sintaksis.* Yogyakarta: CV.Karyono

Riduwan, A. 2012. Realitas Dalam Cermin retak : Laba Akuntansi Dalam Bingkai Penafsiran Praktisi Bisnis Non-Akuntan (Studi Hermeneutika-Kritis). *Sinopsium Nasional Akuntansi XV*

Riduwan, A. 2009. Semiotika Laba Akuntansi : Studi Kritikal-Posmodernis Derridean. *AKPM*

Roslender, R. 1992. *Sociological Perspectives on Modern Accountancy.* London and New York: Routledge

Salim, A. 2006. *Teori & Paradigma Penelitian Sosial*. Yogyakarta: Tiara Wacana.

Sari, D.P. 2009. *Tafsir Hermeneutika Intensionalisme atas "Laba" Yayasan Pendidikan*. Tesis Universitas Brawijaya : Malang

Sari, D.P. 2010. Tafsir "Keuntungan" bagi Profesi Dokter dengan Pendekatan Hermeneutika Intensionalisme. *Sinopsium Nasional Akuntansi XIII*

Sobur, A. 2001. *Analisis Teks Media: Suatu Pengantar Untuk Analisis Wacana, Analisis Semiotik dan Analisis Framing*. Bandung: PT Remaja Rosdakarya.

Suwardjono. 2005. *Teori Akuntansi: Perekayasaan Pelaporan Keuangan. Edisi Ketiga.* Cetakan Pertama. Yogyakarta: BPFE.

Triyuwono, I. 2006. *Perspektif, Metodologi dan teori Akuntansi Syariah*. Radja Grafindo Persada : Jakarta.

Wild, J.K. 2005. *Analisis Laporan Keuangan.* Jakarta : Salemba Empat

Woods, P. 2006. *Succesful Writing for Qualitative Researchers.* London and New York: Routledge

Yule, G. 1996. *Pragmatics.* New York: Oxford University Press

The Implementation of CTL Approach in the Teaching and Learning creative Writing on Grade VIII of Taebenu Secondary School Kupang, NTT

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Abstract: Educational conditions in the Nusa Tenggara Timur (NTT) region may be said not to approach the provisions of national standards when compared to the educational conditions in other regions in Indonesia western hemisphere. There are some factors as the main causes of the conditions as referred to, namely the weak carrying capacity of natural resources, average economic ability at the level of pre-prosperous, cultural feast that is still hard to remove, and a strong mastery of local language. Some of the basic factors are then added by the preparation of facilities and infrastructure in each school unit that is still below the quality standards; this always leads the quality of graduations in this area in the red zone. In response to a number of main causing factors above, the regional government has improved itself through superior programs, such as intensification of agricultural land and livestock, forest conservation and reforestation surrounding catchment areas, cooperative development ranging from family, and efforts to promote the spirit of student learning through *gong* learning. All of the government programs lead to one single goal, namely to improve the livelihoods of NTT communities leading to better conditions. That is, if all the government programs are applied without any problems, then certainly the economic livelihoods of household, the health level of all family members, and the achievements of NTT graduations can be 'jacked up' out of the position in the red zone.

Keywards: Implementation, CTL Approach, Teaching, Learning , Writing

As an illustration, that the achievement picture of high school student graduations (Junior High School (SMP / MTs), Senior High School (SMA / MA), and Vocational High School (SMK / MAK)) in NTT is always lower than the students' graduations in the Bali, Java and Sumatra regions (Regional Office Department of Education and Culture NTT, 2015). The illustration is also corroborated by the statement of the Secretary of Regional Office of Department of Education and Culture NTT in the *Workshop literacy-boos* held by *Save the Children* agency in Bell-In Hotel Kupang on June 15th , 2016, that the average acquisition value of SMP / MTs students' national exam subjects and equal at schools in the NTT province are: 65-68 for Indonesian subject, 46-52 for English, 35-36 for mathematics, and 34 – 42 for Science. Range of these exam achievements has put the SMP / MTs students in NTT in category of C or in the red zone.

This research brings a contextual approach in creative writing learning. Taking this title has the background by a fact that the creative writing is a competence of using Indonesian language that is difficult to achieve by the students, especially students in the junior high school level unit. This difficulty is caused by low students' motivation to write and difficult to organize their oral thoughts into Indonesian daily written discourse, particularly in the appropriate word selection, creative and effective sentence structure, and creation of interesting style to read. To achieve such competencies, a contextual approach is selected by teachers to minimize those difficulties.

The contextual approach is a concept of learning that helps teachers to link the content to be studied by real-world situations. The practice of the contextual approach provides an opportunity for students to make connections between the knowledge which has been owned in their real life. The contextual approach has a unique character when compared to other learning approaches. Ministry of Education (2011: 11) explained that the learning with contextual approach reveals the characteristics: (a) cooperation, (b) mutual support, (c) not boring, (d) learning with passion, (e) fun, (f) integrated learning, (g) active students, (h) exchanging experiences with friends, (i) using a variety of sources, (j) critical students and creative teacher, (k) hallway classroom walls full with students, (l) report to parents are not a report book but student works.

RESEARCH METHOD

This research is a qualitative research with phenomenological approach. Selection of phenomenological approach is based on the character of the phenomenon under the study. That is, through the phenomenological approach, the researchers can reveal or describe in depth about teachers' experiences in operating conditions through advanced learning, learning strategies, and creative writing learning with CTL approach in class VIII of SMPN 4 Taebenu. Characteristics of the phenomenological approach are: (a) Description, in which the researchers can be sterile to any suppositions things in integrating and describing the phenomenon in the form of action (learning) as well, and trying to strip the whole theories, prejudices, and assumptions (Delfgauuw in Hasbiayansah, 2005: 159). (b) Reduction is an experience sorting process to get the phenomenon in its pure forms. That is, a phenomenon that appears to be the real thing is not necessarily acceptable, but the decision should be suspended or placed in brackets (bracketing). It aims that the researchers do not obtain any assumptions that could potentially interfere the description process. Such events by Husserl were called as *epoche*, namely an initial self-restraining process to assess whether something is right or wrong (Hasbiayansah, 2005: 169). In the epoche, the daily understanding, judgment, and knowledge processes are ruled out, and at the same time, the phenomenon is raised naturally because its creation is a new thing as if it is a pure ego (Moustakas, 1994: 33). (c) Essence, is the core meaning born of individual experience in certain phenomena as they are. The search process of essential themes involves exploration, imagination, intuition, and reflection activities that are freely to determine whether a particular characteristic is an important essence (Sudarsyah, 2013: 22). (D) Intentionality, is interrelation of subjective inter-reflection (*noesis*) and objective statement (*noema*) on experience. The combination of these two concepts in the creative writing learning study in the VIII class of SMPN 4 Taebenu implies that the reality comes from the participants, namely the teachers and students in its real forms, and not interfered by any ideas on its reality (Donoghue & Keith Punch (ed) in Sudarsyah 2013: 22).

Research Participants / Subjects

This research was conducted at State Junior High School (SMPN) 4 Taebenu, Oeltua Village, Taebenu Sub district, Kupang Regency, East Nusa Tenggara (NTT) Province. The participants are the source of data based on this research focus and purposes and it was selected by considering on Creswell criteria (2014; 2016), Denzin & Lincoln (2009). Based on the provisions there are 6 research participants consisting of 2 Bahasa Indonesia subject teachers, 1 Counseling teacher, 2 homeroom teachers, and principal of SMPN 4 Taebenu.

Research Instruments

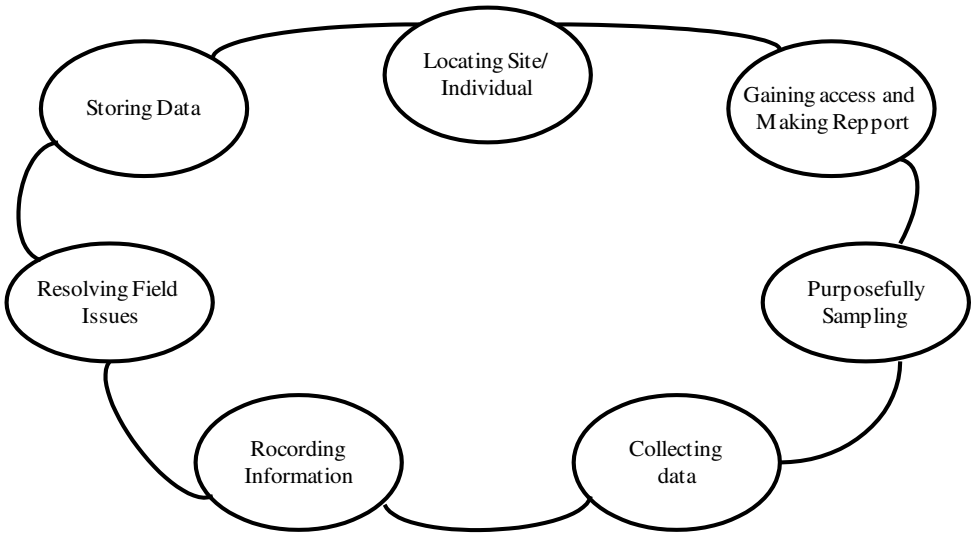
The main instrument in this research is the researchers themselves and supported by observational guide, guide-depth interviews, and documentation. Utilization of observational guide is to obtain data about the research and learning location, namely at SMPN 4 Taebenu. The interview guide contains question items, are used by the researchers to obtain information about feelings, view of the participants about the conditions, strategies, and outcomes that have been done. The documentation research guide is used to obtain the data concerning curriculum documents, learning tools, such as Indonesian subject syllabus, lesson plans and worksheets that have been planned and prepared carefully by the Indonesian subject teachers. The use of supporting instruments in the forms of observational guide, interview and documentation study leads to the researchers themselves as the main instrument. Explicitly Guba (1985: 39) stated that "*...that all instruments interact with respondents and objects but that only the human instruments is capable is grasping and evaluating the meaning of that differential interaction".*

Research Location

This research was conducted at State Junior High School (SMPN) 4 Taebenu, Oeltua Village, Taebenu Sub district, Kupang Regency. The distance between the research locations to the center of Oelamasi regency city is estimated to be ±45 Km. the research location as the SMPN 4 Taebenu is one of the educational institutes in the junior high school level (SMP) having its natural authenticity, cultural authenticity, and language authenticity.

Data Collection Procedure

The data collection procedure was conducted using the flow of "*a data collection circle"* Creswell (1998:109-135) as follow.



(*source: Creswell, 1998)*

Data Analysis Technique

Data was successfully collected from observation, interviews and documentation study and then analyzed by referring to the *Interactive Models of Analysis* technique by Miles and Huberman (1992 in Moleong, 2000; Alwasilah, 2003).

RESULTS AND DISCUSSION

In accordance with the research focus namely to explore and obtain experiences of Indonesian subject teachers in using a contextual approach to improve the power of imagination, inspiration, and creativity of VIII class SMPN 4 Taebenu, then data exposure and data analysis of this dissertation are outlined in 3 themes. These three themes as mentioned in this dissertation research focus are (1) learning condition theme, (2) learning strategy theme, and (3) learning outcomes theme.

Breadth of Indonesian teachers' experiences in the three main themes is elaborated into 12 (twelve) subthemes. The twelve subthemes are derived from each theme, namely 4 (four) sub-themes: (a) learning objectives, (b) characteristics of study field, (c) learning barriers, and (d) characteristics of students or learning participants, derived from theme 1, namely the learning conditions. The learning strategy theme is elaborated into seven (7) sub-themes. The seven subthemes derived from the principles of the approach contextual, namely (a) constructivism principle, (b) inquiry principle, (3) questioning principle, (4) learning community principle, (5) modeling principle, (6) reflection principle, and (7) authentic assessment principle; meanwhile the third theme is a description of learning outcomes of the creative writing with nuance of contextual approach.

Learning Conditions

Picture of the learning conditions are specified into (a) the purpose of creative writing learning in Indonesian Language subject at SMP / MTs unit level, (b) characteristics of Indonesian Language field of study, (c) creative writing learning obstacles in VIII class SMPN 4 Taebenu, and (d) characteristics of VIII class students of SMPN 4 Taebenu with speaking and cultural backgrounds of *Dawan-Amarasi*. Out of the four sub-themes are described as an inseparable part from one sub-theme with other subthemes. The sub-themes will appear in these exposure and analysis as an inherent relationship, which is inseparable from others.

Learning Objectives

Results of the observation, interviews, and documentation in the research location of SMPN 4 Taebenu provide a picture as described below. The learning objectives portrayed here are more focused on the learning objectives of Indonesian Language subject which have been stipulated in the competency-based curriculum of Indonesian Language subject of (SBC) SMP / MTs unit level. SMPN 4 Taebenu Kupang regency uses the SBC curriculum. The school principal said that this institution, SMPN 4 Taebenu (until the study was conducted) has used the 2006 competency-based curriculum (SBC). SBC is as a guide for learning and testing quality of SMPN 4 Taebenu students' results, ranging from grade level of VII to grade level of IX. Teachers at each grade unit utilize the competencies Standards (SK), basic competence (KD), and the subject syllabus from sources of SBC-2006. The Curriculum 2013, known as K-13, has once disseminated to teachers in this school, but the application is still waiting for regulatory use of K-13. The principal said, teachers of SMPN 4 Taebenu have been sent to participate in education and training of K-13 use, but SMPN 4 Taebenu is not a school selected for a pilot of K-13.

Subject Characteristics

The Indonesian Language learning is directed to improve the four language skills namely (a) listening skill, (b) speaking skill, (c) reading skill, and (d) writing skills. There are two receptive skills, namely listening and reading, and two others, namely speaking skills and writing skills are the productive ones. The presenting process the four language skills cannot be separated among the four, although administratively, SK and KD of four skills are separated in each unit class, and semester unit. As an illustration, it can be drawn that, SK and KD for listening aspects of by VIII class are grouped into the 1st and 2nd semesters. The following is the quotation of SK and KD of 1 semester of SMP / MTs unit level by the 2006 Curriculum.

Learning Obstacles

There are some obstacles requiring for solutions. The expression of teachers in the quotations implies that there are two obstacles. First, there is less learning time needed to complete tasks. Consequently, the learning time must be added to some matters or subjects. Extra time will be at home or at school. Second, it is concerning the students' readiness to increase learning time at school. If it is seen from the readiness of supporting literature in library, it still cannot answer the needs of students because the book contents at the school library are still far from the students' needs. These two obstacles are not only experienced by Indonesian Language teachers, but also to the teachers of other subjects.

Learning Participants Characteristics

Mrs. Mary Y, a Indonesian Language and literature teacher at the school has already full understanding on the students in the VIII class that they are not included as adolescents with high achievement. The average Indonesian Language subject values in the report card sheets of the second semester by the VII show a number of variety achievements. There are only small portion of students out of 40 students in VIII class having a average number of values above the standard. This condition allows Indonesian Language subject teachers and other subject teachers to immediately find solutions.

Learning Strategy

Contextual learning process has characteristic of having priority on the students' interest, this is described in cooperative, collaborative strategies, problem-solving learning. These cause students to be more expressive and imaginative. The contextual strength as seen its success in creative writing learning is revealed in the following details.

a) *Contextual forwarding constructivism*. Accompanying the students in the creative writing in VIII class of SMPN 4 Taebenu requires different strategies. The cooperative and collaborative strategies as the main characteristics constructivism are references of elaboration from the constructivism principles. The cooperative and collaborative strategies has favored on the cooperation process among the students in small groups. This strategy is more selected by Indonesian Language teacher as the superior strategy. Implementation of the cooperation strategy by teachers at the school has proved its superiority that the problem-solving process, such as choosing shape, topic, theme of creative writing, can be solved in the cooperative strategy. Tactical, the students are guided in the classroom and outside the classroom in small group unity. The presence of teachers in the group is only through the creative writing worksheets and models (principle modeling). Practically, the presence of

cooperative strategies has been successful in helping to build the spirit of students' learning to formulate one-round short play. This kind of learning spirit must be accompanied and guided in more planned and systematic manners. In order to create the more-planned mentoring and coaching processes, the learning tools, such as syllabi and lesson plans should be revalued. The VIII class of SMPN 4 Taebenu teachers, especially Indonesian Language and literature teachers should be aware that in order to facilitate students with strong local language of Dawan-Amarasi, the teachers should take over the roles. The teacher roles as observed during the research, has already and really live the constructivism spirit in the cooperative strategy. The teachers have taken actions to anticipate the entire process of "telling" and substitute it through the mentoring process. The researchers concluded that the teachers in SMPN 4 Taebenu actually have conducted the CTL correctly. In other places, there are students in the cooperative groups requiring to be helped. At this time, the teachers present students' worksheets. The presentation of students' worksheets proves that the teachers want to immediately eliminate the conventional strategy of lecturing in the study group. The collaborative nuance has turned into a cooperative one. The advantage of collaboration in 1st-round playwriting learning is by the presentation of students' worksheets by the teachers. Atmosphere of 1-round drama writing learning is moved from a room limited by wall space, into outdoor rooms. The achievement competency was formerly at the level of applications based on a model example, then it is raised to the level of productive-creative. Although the teachers' spirit and motivation in the VIII class SMPN 4 Taebenu are very strong, though to make the students learn with a language background as described above will still be achieved, but it takes a long time. The students' mindset in the VIII class SMPN 4 Taebenu has been established through the mindset of cultural pattern and first language. By referring to Lev Vygotsky's theory, the researchers concluded that that the cultural features such as language (Dawan-Amarasi) experienced by the VIII class teacher has colored the creative works of the VIII class students in SMPN 4 Taebenu.

b) *Contextual presents in various learning community.* Efforts to maximize the contextual concepts and characteristics in the context of camping-scout are the choice of VIII class teachers at SMPN 4 Taebenu. The teachers at SMPN 4 Taebenu have practiced adventure learning as a selection strategy to facilitate the VIII class students in writing. That is, to promote the creative writing creativity, the teachers choose open space. This kind of strategy is selected by Bahasa Indonesia teachers to help students acing difficulty to learn with other friends in the group. Such learning atmosphere allows the students of VIII class SMPN 4 Taebenu to express their own experiences. The constructivism acknowledges the diversity of students' learning time. Personally, the students in VIII class SMPN 4 Taebenu actually have different learning times. Data of this study noted that from the learning time factor, there are 15 students selecting the best time to learn to do school assignments (including writing, completing math problems, and IPA) at night; there are 12 students stating their best time in the morning and evening and there are 13 students stating their best learning time is when they have done to help their parents. The following is about the best time for reading textbooks, out of 40 students in the VIII class, there are 31 students stated at night, while 9 others stating after helping their parents. Meanwhile, the best time to do the written assignment, including free composing, out of 40 students, there are 11 students stated at night, two students expressed in the morning, and 27 students stated at any time after finishing to help their parents. From the data distribution, we can conclude that in fact the students at this school, especially the VIII class students do not have much time. Their learning time is only really at school. Thus, individual assistance, in addition to cooperative and collaborative strategy is greatly necessary for improving the creative writing competence.

c) *Contextual presents in self-learning context.* Brooks & Brooks in Johnson (2014: 175) stated that self-learning frees students from all ages to work on school assignments. The self-learning requires teachers' dedication. Without teachers, the process will fail. Brooks & Brooks asserted that the way teachers view, that the tasks of self- learning determine the quality of students' education. Qualified CTL teachers allow students to not only reach the national standard with high academic value, but also obtain essential knowledge and skills for learning throughout their lives. The Brooks & Brooks concept, has been applied by teachers in the practice of creative writing of poetry in VIII class. The VIII class teachers have created a learning environment at school leading to various inspirations. This concept has given more experience to Indonesian Language and Literature teachers at the VIII class to assist the students in finding ideas independently. The teachers have given the best ways for students to attempt to relate the knowledge acquired at school with real experiences at home, at cornfields, on grazing animals. With such experience, they can create simple poems, although it still takes time to guide them. Strategically, application of a self-learning still requires the teacher presentation. This pattern is rather difficult to detect, because the learning time at home is difficult to monitor. However, the tasks assigned to do at home are always included by the worksheets. Conclusions: students' worksheets have been a highly superior learning guide in an effort to improve students' achievement.

Effects of Contextual Approach

All teachers at any schools have the same view, that is, if you want to make the students be able to write, first the teacher must be able to demonstrate that he can write. So is the creative writing. If you want the students to be able to produce creative writings, the author should be more creative. In this context, of course, is somewhat different. Teachers in this context are not prepared to make all students in SMPN 4 Taebenu become creative writers. But he can provide way or manner, how one student in VIII class may be in an atmosphere allowing him to be able to write creatively.

Creative things cannot be seen by naked eye. Strong support for creative person is imagination. Even the imagination cannot be seen, touched, felt, or whatever in a sense. However, the results of both can be seen in the forms of creative and imaginative. The process of generating creative and imaginative forms is unpredictable. Researchers also cannot confirm, that "if one student is sitting alone under an oak tree, in the school yard area in front of VIIIA class are working to create a poem?"

The above description is only to state that the discussion of this section does not need to downgrade, even to eliminate any ethical factor. That the presence of ethical factors such as the form of poetry, simple essays, and plays on the students' worksheet is an important form to be understood. However, *emic* factors will have more roles in this context. That is, through the strategy how to create a poem, discourse essays, and plays, and possibly other fictional works. Therefore, the concentration of this discussion is not directed at a yield of writing, but rather to (1) the teachers' spirit, motivation, creativity in the VIII class SMPN 4 Taebenu showing their ability to maximize the contextual approach in creative writing learning, and (2) strength of the contextual approach making the teachers and students present in a learning to write by more creative, active, creative, innovative, and fun (PAIKEM). Such creativity is created in the learning strategies with the constructivism, inquiry, questioning, learning communities, modeling, reflection, and actual assessment principles. The principles of contextual approach can only be sustained if the teachers want to involve students actively in the strategy animating the constructivism, inquiry, questioning, community learning, modeling, reflection, and authentic assessment. The principles reflect in the learning having emphasis on self-learning,

learning in the context of diversity, and learning by considering students' diversity. The description leads us to examine a number of these research findings.

CONCLUSION

Description on teachers' experiences in applying the contextual approach by considering seven principles of contextual is concluded as follow:

a) The constructivism principles animating the entire student-centered learning strategies have been able to create teachers' spirit and creativity in designing student-teacher activity process so that they can find problems about how to learn to write from variety of contexts.
b) the contextual approach emphasizing on the inquiry principles in the cooperative and collaborative learning is proven to be effective in teaching creative writing in the VIII class at SMPN 2 Taebenu. Implementation of the contextual approach with the inquiry characteristics has been able to motivate and encourage students so that they are able to adapt to new environment in each subject. Through the assistance and guidance of worksheets prepared by the teachers, the students are managed to break into the context and the new environment. Through the students' worksheet and expertise of assistant teachers, the students have shown their skills in formulating their experience findings through common learning in cooperative and collaborative groups.
c) Learning by presenting diversity of atmosphere, allows the students to adapt to the diversity. Together in a group, the students find problems during the learning period making obstacles for them to create creative writing. In an atmosphere of learning community diversity, it can facilitate the students to find themselves. Common learning in a sense of community learning is proved to encourage weak students to strive to produce creative works such as poems, essays, and plays through unity in diversity.
d) The creative writing learning with the contextual approach turns out to be the teachers' and students' selection to produce creative works, such as personal experience narrative, script of drama dialogue, diary quotation, and activity reports. The contextual approach forwarding the cooperation in an atmosphere of collaboration is proved to be effective for all subjects and all main discussions.
e) The pattern of self-learning for SMPN 4 Taebenu students in fact faces obstacles in regulating the students' learning time. The appropriate selection of learning time can encourage students to create creative works as a result of reflection in all places and at all times. This statement is inversely not in line with the experience of SMPN 4 Taebenu teachers facilitating the students in VIII class. The self-learning is supposed to be the selection pattern, it is not able to make SMPN 4 Taebenu students have critical thinking and free thinking. The application of this pattern also faces obstacles namely very limited time learning at home. That is, the pattern giving priority on the self-learning still takes hard work for SMPN 4 Taebenu teachers to provide guidance on an individual basis at school.
f) The contextual approach using authentic assessment can only be done for the learning materials with a low degree of difficulty, such as text summarizing stories, or re-writing drama text by considering EYD. The contextual approach application requires the time learning to be able to hear other people.

Finally, as the culmination of a description on the teachers' experience in applying the contextual approach in the creative writing learning, it can be concluded that the contextual approach is proven and can help students to express their experiences on a regular basis during 'they' produce simple creative works such as creative fiction works. The contextual approach has succeeded in reducing the teachers' role as teachers at SMPN 4 Taebenu and strengthened the teachers' role as a facilitator in assisting students to learn to write in a contextual nuance.

SMPN 2 Taebenu has already appropriate understanding on a proper learning atmosphere not only limited in the classroom limited by walls.

References

Anderson, L.W. & Krathwohl, D.R. 2010. *Kerangka Landasan untuk Pembelajaran, Pengajaran, dan Asesmen: Revisi Taksonomi Pendidikan Bloom.* Yogyakarta: pustaka pelajar.

Arends, R.I. 2008. *Learning to Teach: Belajar untuk M*engajar. Edisi ketujuh. Buku satu. Yogyakarta: Pustaka Pelajar.

Arends, R.I. 2008. *Learning to Teach: Belajar untuk M*engajar. Edisi ketujuh. Buku dua. Yogyakarta: Pustaka Pelajar.

Baswedan, A. 2014. Gawat Darurat Pendidikan di Indonesia. (Paper delivered in Gathering of Ministry and Head of Office). Jakarta: December 1st, 2014.

Bagus, L. 2002. Kamus Filsafat. Jakarta: Grammedia Pustaka Utama.

Brouwer, M.A.W. 1984. Psikologi Fenomenologis. Jakarta: Grammedia Pustaka Utama.\

Baharuddin, H, cs. 2008. *Teori Belajar dan Pembelajaran.* Yogyakarta: AR-Ruzz Media Group.

Blackburn, S. 2013. *Kamus Filsafat.* I Edition. Yogyakarta: Pustaka Pelajar.

Chaplin, J.P. 1981. *Kamus Lengkap Psikologi: Penerjemah: Dr. Kartini Kartono.* Cetakan ke 7. Jakarta: PT Grafindo Persada.

Crain, W. 2007. Teori perkembangan: konsep dan aplikasi. Third edition. Yogyakarta: Pustaka Pelajar.

Cresswell, J.W. 1994. *Research Design: Qualitative & Quantative Approach*. Thaousand Oaks, london, New Delhi: Sage.

Cresswell, J.W. 1998. Qualitative Inquiry: Choosing Among Five Traditions. Sage Publications.

Creswell, J.W. 2014. *Research Design: Pendekatan Kualitatif, Kuntitatif, dan Mixed,* Third edition. Yogyakarta: Pustaka Pelajar.

Crain, W. 2007. *Teori Perkembangan: Konsep dan Aplikasi*. Edisi Ketiga. Terjemahan: Yudi Santoso. Yogyakarta: Pustaka Pelajar.

Degeng, I.N.S. 2013. *Ilmu Pembelajaran: Klasifikasi Variabel untuk Pengembangan Teori dan Penelitian.* Bandung: Kalam Hidup.

Direktorat Kesehatan dan Gizi Masyarakat & BAPPENAS. 2007. "Laporan Pencapaian Millenium Development Goals (MDGs-UNDP)". (Makalah Online). (kgm.bappenas.go.id; www.undp.org). Accessed on July 10th, 2016.

Dinas Pendidikan dan Kebudayaan Provinsi Nusa Tenggara Timur. 2016. "Kebijakan dan Pelaksanaa Literasi di Provinsi Nusa Tenggara Timur" (Paper), delivered in Workshoop Literasi-Boos, June 2016.

Denzin, N.K dan Lincoln, Y (Eds). 1994. *The Handbook of Qualitative Research* Thousand Oaks. CA: Sage.

Denzin, N.K dan Lincoln, Y (Eds). 2011. *The Handbook of Qualitative Research Thousand Oaks. CA: Sage.(Terjemahan).*Edisi ketiga. Yogyakarta: Pustaka Pelajar.

Denny M. 2009. "Pemikiran Fenomenologi menurut Edmund Husserl". Publication by Study Journal. Blogspot.

DePorter, B & Mike, H. 2000. *Quantum learning: Membiasakan Belajar Nyaman dan Menyenangkan.* 8th Edition (translator Alwiyah Abdurrahman)

Gunawan, A.W. 2003. *Genius Learning Strategy*. Bab VIII, p. 169. PT Grammedia Pustaka Utama: Jakarta.

Freire, P., Ivan Illich, Erich, F, et. al. 2015. *Menggugat Pendidikan: Fundamentalis, Konservatif, Liberal, Anarkis,* Cetakan VIII (penyunting & Alihbahasa: Omi Intan Naomi). Yogyakarta: Pustaka Pelajar.

Fisher, A. 2014. *Berpikir Kritis: Sebuah Pengantar*. Jakarta: Erlangga

Hasbiaansyah. O. 2005. "Pendekatan Fenomenologi: Pengantar Praktik Penelitian dalam ilmu Sosial dan Komunikasi". Dikti Journal, SK. 56/DIKTI/KEP/2005.

Hergenhahn, B. R & Olson, Matthew H. 2008. *Theories of Learning (teori belajar). Seventh Edition*. Jakarta: Kencana.

Joyce, B, Marsha, W dan Emily, C. 2009. *Models of Teaching.* EdisiKedelapan. Translation: Achmad Fawaid & Ateilla Mirza. Yogyakarta: Pustaka Press.

Kemendikbud. 2014. "Model Pembelajaran Penemuan *(Discovery Learning)".*Badan Pengembangan Sumber Daya Manusia, Pendidikan dan Kebudayaan, dan Penjaminan Mutu Pendidikan (Paper). Jakarta.

Komalasari, K. 2013. *Pembelajaran Kontekstual: Konsep dan Aplikasi*. Bandung: Refika Aditama.

Kuswarno, E. 2010. "Penerapan Metodologi Penelitian Fenomenologi dalam Studi Komunikasi". (material of guest lecturing in Muhammadiyah University of Malang. Online) Accessed on June 8th, 2016.

Koswara, D. 2013. "Pembelajaran Kreatif dan Bermakna". (artikel online: https://id.linkedin.com). Accessed on July 10th, 2016.

Komite Nasional Pendidikan. 2014. Permasalahan Pendidikan Serta Rekomendasi untuk Pemerintahan Baru. (Paper) Seminar KNP in LBH Jakarta, on the date of August 21st, 2014.

Mangunwijaya, F. 2008. Kurikulum yang Mencerdaskan: Visi 2030 dan Pendidikan Alternatif. Jakarta: Kompas Penerbit Buku.

Moleong, L.J. 2007. *Metodologi Penelitian Kualitatif*. Bandung: PT Remaja Rosdakarya Offset.

Moustakas, C. 1994. *Fenomenological Research Methods*. New Delhi: Sage Publications.

Muchith, M.S. 2008. *Pembelajaran Kontekstual*. Semarang: RaSAIL media group.

Munandar, U.S.C. 1999. *Kreativitas dan Keberbakatan: Strategi Mewujudkan Potensi Kreatif dan Bakat.* Jakarta: PT. Gramedia.

Neonbasu, G. (ed). 2012. *Multikulturalisme Pembangunan: Refleksi Struktural atas Karya Manusia.* Penerbit Ledalero.

PISA & Litbang Kemendikbud.go.id. 2013. "Laporan Survei internasional PISA" (*Programm International for Student Assesment)*. (online) (https://dhantymatika.files.wordpress.com/20/2013/09/pisa.jpg),

PIRLS & KEMENDIKBUD. 2011. "Kemampuan Membaca Siswa Indonesia di Dunia". (Laporan Survei PIRLS online: litbang.kemendikbud.go.id-puspendik). Accessed on June 13th, 2016.

Schunk, D.H. 2012. *Learning Theories: an Educational Perspective*. Edisi keenam. Yogyakarta: pustaka pelajar.

Pusat Penilaian Pendidikan. 2008. "Penilaian yang Berkualitas untuk Pendidikan yang Berkualitas". (online paper: litbang.kemendikbud.go.id). Accessed on June 3rd, 2016.

Pendidikan Indonesia.com. 2015. "Potret Dunia Pendidikan di Indonesia". (article) Accessed on July 21st, 2016.

Pranoto, N. 2012. "Creative Writing itu Teknik Menulis". (Artikel online) (Indonovel.com; www.goodreds.com). Accessed on July 8th, 2016.

Prasetyono, E. 2012. "Bertemu dengan Realitas: Belajar dari Fenomenologi Husserl" dalam *Jurnal Filsafat ARETÉ*, VOL 1 NOMOR 1 – JANUARI 2012-ISSN 2089-7804.

Suparno, P. 1997. *Filsafat Konstruksivisme dalam Pendidikan*. Penerbit Kanisius: Yogyakarta.

Sudarsyah, A. 2013. "Kerangka Analisis Data Fenomenologi: Contoh Analisis Teks Sebuah Catatan Harian" dalam *Jurnal Penelitian Pendidikan*, vol.14 No.1, April 2013 (online). (https://plus.google.com). Accessed on July 13th, 2016.

Smith, J.A. 2009. *Psikologi Kualitatif: Panduan Praktis Metode Riset*. Yogyakarta: Pustaka Pelajar.

Santrock, J.W. 2009. *Psikologi Pendidikan, 3rd Edition Buku 1*. Translator Diana Angelica. Jakarta: Penerbit Salemba Humanika.

Santrock, J.W. 2009. *Psikologi Pendidikan, 3rd Edition Buku 2*. Translator Diana Angelica. Jakarta: Penerbit Salemba Humanika.

Suryadi, A. 2010. Permasalahan dan Alternatif Kebijakan Peningkatan Relevansi Pendidikan: Studi Relevansi Pendidikan Kerjasama UPI dengan balitbang Kemendiknas. (Paper of Intra-school Internasional Seminar) on the date of November 29th, 2010.

Slavin, R.E. 2011. *Psikologi Pendidikan: Teori dan Prakti*k. Edisi Kesembilan, 1 Volume. Translator: Mariyanto Samosir. Jakarta: PT. Indeks.

Slavin, R.E. 2011. *Psikologi Pendidikan: Teori dan Prakti*k. Edisi Kesembilan, 2 Volume. Translator: Mariyanto Samosir. Jakarta: PT. Indeks.

Save the Children. 2012. "Assesment Ketercapaian Kompetensi Calistung Siswa Kelas I – V SD-SD Dampingan Save the Children (Assesment Reports)". Kupang: Save the Children NTT.

The World Bank (bank Dunia). 2006. "Membuat Pelayanan Bermanfaat bagi Masyarakat Miskin di indonesia: Titik fokus untuk Mencapai Keberhasilan di Lapangan". (online). Website: www.worldbank.or.id. Accessed on July 8th, 2016.

The World Bank (Bank Dunia) & Kemendikbud. 2011. Mentransformasi Tenaga Pendidikan Indonesia. Laporan Survei Volume II (online) (worldbank.org. document) Accessed on July 20th, 2016.

TIMSS & PIRLS. 2011. "Mathematics Achievement: Fourth Grade. (Artikel online). Accessed on July 8th, 2016.

Turner, B.S. (Editor) 2012. *Teori Sosial: Dari Klasik sampai Postmodern (terjemahan).* Yogyakarta: Pustaka Pelajar.

Trianto. 2007. *Model-Model Pembelajaran Inovatif Berorientasi Konstruksivistik,* Chapter II, p. 13-14. Jakarta: Prestasi Pustaka.

Watimena, A.R. 2013. "Fenomenologi Edmund Husserl" dalam *Jurnal Rumah Filsafat.* (online) Accessed on July 8th, 2016.

Woolfolk, E.A, & Lorraine McCune-Nicolich. 2004. *Mengembangkan Kepribadian & Kecerdasan Anak-anak (Psikologi Pembelajaran), terjemahan M*. Khairul Anam. Depok: Inisiasi Press.

Wirawan, I.B. 2013. *Teori-teori Sosial dalam Tiga Paradigma: Fakta Sosial, Definisi Sosial, dan Perilaku Sosial*. Jakarta: Kencana Prenadamedia Group.

Wahana Visi Indonesia. 2007. "Survei Ketercapaian Kompetensi Membaca menulis Siswa Kelas V dan VI SD-SD Dampingan WVI ADP Kefa, Rote-Ndao, dan Alor". (Report). Kupang: WVI Regio NTT.

Wahana Visi Indonesia. 2009. "Survei Ketercapaian Kompetensi Menulis Siswa kelas V dan VI SD-SD Dampingan WVI Regio NTT, Kalbar, dan Papua". (Report). Kupang: WVI Regio NTT.

The effectiveness of E-Book Based On Maple for Integral Calculus Course at Mathematics Education of PGRI Semarang University

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Abstract: The purpose of this research was to determine the effectiveness of e-book based on Maple for Integral Calculus at Mathematics Education of PGRI Semarang University. This type of research is Quasy Experiment. The research population was two-semester students of Mathematics Education of PGRI Semarang University which consists of seven classes. With random sampling techniques have two classes, 2B as an experimental class and class 2A as the control class. How to capture data through observation and learning achievement test? The data with the thoroughness were testing learning achievement test and comparative test t. The results showed that the implementation achieve effective learning characterized by: a) the average value of the individual test results of students exceeding the standard minimum = 75, b) the average experimental class learning achievement at 82.43 while the control group 70.37, the experimental class has an average of study results significantly better than average class control. Based on these results, it can be concluded that the e-book based on Maple for Integral Calculus at Mathematics Education of PGRI Semarang University effective.

Keywords: Effectiveness, E-Book, Maple, Integral Calculus

Education is a matter that absolutely must be addressed by the Indonesian people if wants to improve the quality of Human Resources. One of the government efforts to improve the quality of education is to improve the curriculum. In 2011, the Indonesian National Qualifications Framework (KKNI) came into effect in the education system in Indonesia. KKNI is leveling competence and qualifications framework to reconcile, equalize, and integrate the fields of education and job training and work experience in order to award the work in accordance with the recognition of the competence structure of employment in various sectors.

KKNI is the embodiment of quality and identity of the Indonesian people associated with national education and training system that is owned by Indonesia. The Description of qualifications on KKNI reflect one's learning outcomes obtained through lane 1) education, 2) training, 3) work experience, 4) independent learning. Appropriate description of qualifications in KKNI on independent learning, the development of e-book is one way to achieve that. Self-reliance is needed especially in developing student learning in order to establish the competence of learners by giving meaning and responded to prior knowledge, and establish a mutually beneficial relationship with the community and the environment. In this case, constructing and preparation of knowledge takes place and made of, by, and for the learners.

Mathematics participates in developing education. Mathematics is one of the basic sciences that are very important to provide students in the face of later life in society. Therefore mathematics should be able to be one of the means to increase the power of reason and the students can improve their ability to apply mathematics to face the challenges of life in solving problems.

Meanwhile, Maple is software developed by Waterloo Maple Inc. for solving mathematical problems. Maple runs on the Windows family of operating systems and is quite

easy to use. Commands such as cut, copy and paste can be used as in the Windows hotkey. Maple is one of the few software is a computer application that can be used to solve various mathematical problems by using this program, a variety of mathematical problems can be solved.

Reality on the ground based on the experience of researchers for teaching Calculus courses, learning tools which there are less support faculty efforts to develop students 'potential optimally, especially the use of technology to develop students' critical thinking skills. Therefore, the design of the course is not enough, because of the need for a device that supports the use of learning on learning in college.

Based on these descriptions, the researchers formulate problems that are the focus of research is whether the use of the learning subjects such as calculus-based e-book on the subject Maple calculus in Mathematics Education courses University PGRI Semarang effective?.

LITERATURE

Relevant Research, many previous researchers who had bee examined the benefits of multimedia in particular e-book and Maple in learning. Research conducted Dhimas Ardiansyah and Rakhmawati (2012) under the title "Development of Learning Media e-book Interactive On Training Courses Digital Electronics at the Department of Electrical Engineering UNESA" states that the use of e-book interactive positively influence is increasing student learning outcomes at the course digital electronics as well as a positive effect on the attitudes of students who thought he could not be so motivated to explore their own abilities through questioning and discussion.

While Ari Widodo, M. Ed (2011) conducted a study entitled "The Effect of Use electronic-book (e-book) in Science Education to Increase Mastery of Concepts and Technology Literacy RSBI junior high school students". The study was conducted in two RSBI schools located in West Java to compare the use of e-book issued by the Education Ministry and the e-book compiled by investigators. Differences between the e-book used in this research is, e-book issued by the Education Ministry has pdf format without fitted with other multimedia aspects such as audio, video and animation, while the e-book developed by researchers are equipped with the multimedia aspect. The results obtained from this research is an electronic book (e-book) that is equipped with the multimedia aspects of using flash program can improve their understanding of concepts and junior high school students' science literacy.

Prawoto and others in the research entitled "Development and Use of Maple to Improve Student Comprehension about Integral Function'. The research was conducted on students majoring in mathematics, State University of Surabaya (UNESA). Based on the research that has been done the conclusion that use of Maple to improve students' ability to calculate the area using the integral. Overall the study above is a separate research. The research team intends to conduct research that combines e-book with Maple.

E-Book

According to Wikipedia e-book known as digital books, e-text is in the form of digital media and sometimes protected by digital copyright. The shape can be shaped pdf files, word, html, txt and others. But the famous usually e-book form pdf file that can be read by programs like acrobat reader which can be downloaded for free earlier. An e-book, as defined by the Oxford English Dictionary, is "an electronic version of a printed book that can be read on a personal computer or a handheld device designed specifically.

In technology, e-book is actually a collection of digital text. Michael Hart and his Project Gutenberg is a pioneer who sought the use of digital technology for textual materials. He began the project in 1971 to digitize the Declaration of Independence (proclamation of independence of the United States) uses a standard known as the American Standard Code for Information Interchange (ASCII). The technology is simple and without consideration of the beauty of the view as it now can be done with a variety of word-processing program. The aim is also simple: provide digital text as much as possible to the general public.

The types of e-book based on its content, is the most common type of digital books. This type of book is the most traditional, usually the number of pages and there are hundreds of them exactly with paper books. Type the e-book is sorted into chapters and several topics and contains more than one idea.

Software Maple

Maple is a computer program that was first developed in 1980 by the Symbolic Computation Group at the University of Waterloo Ontario, Canada for purposes of the fields of mathematics, statistics and computational algebra. Maple is a comprehensive tool for digging, teaching and applying mathematics. Maple contains thousands of mathematical procedures. But we can also make your own procedure with the programming language. Maple provides a "worksheet" that we can use to enter commands and see the output at once.

We can use Maple as a tool for understanding the Calculus through visualization, calculators include algebraic operations, drawing functions, seek limit function, continuity of functions, derivative, the application of derivatives, integrals and application it. Maple runs on the Windows family of operating systems and is quite easy to use. Before getting into commands that will be used to solve the problem, especially for the course Calculus, we must first understand Maple. When first run, Maple will immediately open a command window and on the left there is a sign, sign Maple is ready to receive commands.

The effectiveness of learning

In Sinambela (2008: 78), the learning is said to be effective if it achieves the desired objectives in terms of both learning goals and student achievement are maximized. Clark et al (2009) used three criteria to declare effective learning in her study that the achievement of mastery learning by students, influential in learning achievement and learning achievement results are better when compared with the results of classroom learning achievement with conventional learning. A class is said to be complete (mastery learning) to learn if there are 80% of students who achieve a minimum completeness criteria targeted at the class. Minimum mastery learning criteria used in this research followed the completeness criteria applicable. Score 80% coming from Clark, Guskey, & Benninga (1983).

RESEARCH METHODS

This study is quase experimental. The research population is two-semester students of mathematics education University PGRI Semarang which consists of seven classes. With a sample random sampling techniques have two classes, 2B as an experimental class and class 2A as the control class. How to capture data through observation and learning achievement test? The data with the thoroughness of testing learning achievement test and comparative t test. Variable research on effectiveness studies E-Book Maple Based on Calculus Course in Mathematics Education University of PGRI Semarang is as follows.

1) The independent variables in this research are learning to use e-book calculus-based Maple.
2) The dependent variable in this research is result of learning.

RESULTS AND DISCUSSION

Test Mastery Learning Achievement Tests

This test is done to look for answers one indicator of the effectiveness of learning in the experimental class of achieving mastery learning achievement with a minimum completeness criteria is 75.

To answer these questions, hypothesis being tested is

H_0: (average learning achievement test scores equal to 75)

H_1: (average learning achievement test scores are not the same as 75)

Criteria deny Ho if the significance value <5%.

In current research, the data obtained class learning achievement test scores from these data further experiments performed classical completeness test data analysis using SPSS and obtained the results as shown in Table 1.

Table 1 One-Sample Test

	Test Value = 75					
					95% Confidence Interval of the Difference	
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Values experiment	5.204	34	.000	7.429	4.53	10.33

Because value of sig = 0,000 = 0% < 5%, so H_0 denied. This means that the average learning achievement test scores are not equal to 75. Furthermore, to know that average values of the thoroughness of the experimental class of more than 75 seen from Table 2 below.

Table 2 One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Values experiment	35	82.43	8.445	1.427

Further investigation averaging empirical look at the output table One-Sample Statistics shows that the average value of learning achievement at 82.43. Value shows the average test scores of completeness criteria so that it can be concluded mastery learning achievement.

Comparative test of academic achievement of Student

Comparative tests herein are intended to compare the average of a variable between the experimental class and control class.

Data test scores for experiment class and control class previously performed first equality test variants. In this research comparative test data analysis using Independent Sample Test and the results are shown in Table 3.

Table 3 Independent Samples Test

		Levine's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Value	Equal variances assumed	4.044	.048	4.086	68	.000	12.057	2.951	6.169	17.945
	Equal variances not assumed			4.086	53.001	.000	12.057	2.951	6.139	17.975

Look at the table independent sig Samples Test for 0,048 = 4.8%. The sig value of less than 5% then H_0 is rejected, and then there is a difference of variance between the experimental class and control class. Furthermore, by seeing the value in column sig (2-tailed) column of Independent sample t-test of 0.000 <0.05 indicates that H_0 is rejected, meaning that the learning outcomes experimental class and control class differed significantly. To determine which class who score higher on average used the analysis of Group Statistics are presented in Table 4.

Table 4 Group Statistics

	Class	N	Mean	Std. Deviation	Std. Error Mean
Value	Experiment Class	35	82.43	8.445	1.427
	Control Class	35	70.37	15.278	2.582

By seeing the average learning achievement in the mean columns, tables Statistics Group acquired 82.43 to 70.37 for the experimental class and control class. The results showed that the experimental class learning outcomes better than the control class. Also the average value of the experimental class achieve mastery targeted is 75. In other words, the experimental class students achieve mastery in classical.

CONCLUSION

The results showed that the implementation achieve effective learning characterized by: a) the average value of the individual test results of students exceeding the standard minimum

= 75, b) the average experimental class learning achievement at 82.43 while the control group only 70.37, the experimental class has an average of research results significantly better than average grade control. Based on these results, it can be concluded that the e-book based on subjects Maple calculus in mathematics education courses University PGRI Semarang effective.

Suggestion

Based on these results, the advice to the researchers suggested, as follows. Learning to use e-book based on the Maple Calculus courses provide opportunities for students to beactive both within and between groups, so that learning with this method is suitable for use in the classroom that have a low learning achievement.

REFFERENCES

Clark, et. al. 2009.http://www.education.com/reference/article/mastery-learning/. *[22/06/2015]*.

Ardiansyah, Dhimas dkk. Pengembangan Media Pembelajaran e-book Interaktif Pada Mata Kuliah Elektronika Digital Di Jurusan Teknik Elektro UNESA. *Jurnal Pendidikan Teknik Elektro. Volume 02 Nomor 1, Tahun 2013, 327-332*

Martínez, S. 2005. *ICT in Mathematics Education: geometry problem solving with Applets*.

Prawoto, dkk. Prosiding seminar nasional matematika dan pendidikan matematika Jurusan Matematika Universitas Negeri Surabaya 18 Mei 2013.

Recent Research Developments in Learning Technologies. www.formatex.org/ micte2005/402.pdf *[05/11/2014]*.

Sukestiyarno. 2010. *Olah Data Penelitian Berbantuan SPSS*. Semarang: Unnes.

Trianto. 2009. *Model-model Pembelajaran Inovatif Berorientasi Konstruktivistik*. Jakarta: Prestasi Pustaka Publisher.

School Literary Movement in Indonesia: Challenges for Scientific Literacy

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Abstract: Reflections on the results of tests by PIRLS, TIMSS, PISA, encouraging the Ministry of Education and Culture, Indonesia, developed the Gerakan Literasi Sekolah (School Literary Movement). GLS aims to foster reading interest and reading skills of students. In the broader context GLS develop the school to serve as a learning organization that makes all citizens as a lifelong learner. Critical analysis of the GLS with the main program emphasizing reading skills is the first step to develop literacy which can serve as the basis development of scientific literacy. Scientific literacy is the goal of science education that need to be developed in the school. Scientific literacy has a significant role in encouraging every citizen to understand the nature of science, basic science knowledge and scientific thinking, so that they can actively participate in issues of science, technology and their impact. Critical reading, scientific writing, and scientific inquiry is a framework for development of a culture of scientific literacy. In the school literacy practices, critical reading, scientific writing, and scientific work through scientific inquiry integrated in science lesson.

Keywords: Gerakan Literasi Sekolah, scientific literacy, scientific inquiry.

The advancement in science and technology are rapid and has brought great changes in the world of education. The development education the 21st century, known as the century of knowledge and innovation-based economy, driven by advances in technology and science (Liliana & Florina, 2015). Every citizen should have the ability to use scientific literacy to make smart decisions with regard to issues involving science and technology. for that reason the scientific literacy is an important ability to understand for all.

In a world flooded with products of scientific inquiry, every citizen has the right to education of scientific literacy (Glynn & Muth, 1994). In today's information age demands mastery scientific literacy increased in the workplace. More jobs require high level skills, need people who are able to learn, to reason, to think creatively, make decisions, and solve problems related to global issues (Liu, 2009). In other words, understanding of science, including content, attitude, and scientific procedure is an essential skill.

Currently, many jobs require high-level skills, need people who are able to develop learning to learn, develop reasoning ability, thinking creatively, make decisions, and solve problems related to global issues (Liu, 2009). In other words, understanding of science, including content, attitude, thinking skills, and scientific procedure is an essential skill.

Scientific literary of society is one of the main goals of science education (Norris & Philips, 2003). In 2002, the United Nations declaring 2003 to 2012 as "the United Nations Literacy Decade". Resolution 56/116 puts literacy at the heart of lifelong education (UNESCO, 2006). Based on the UN resolution, many countries reformed science education with the aim to develop scientific literacy.

Science literacy in Indonesia have started to become the focus in education. Although, learning science is still focused on mastery of concepts and basic science process skills. Mastery of science concepts is not enough for the generation, they must harmonize mastery of science concepts with economic developments, technological developments, social case, and quality of

life (Hurd, 1998). Therefore it is necessary for education reforms to foster scientific literacy. Science education intended to foster scientific and technological literacy. The teaching and learning in school should be changed from teaching the motivation and needs of students to mastery science concept to learning of science that focuses on community problem and socio-science issues (Holbrook & Rannikmae 2009).

Indonesia's ranking in the PISA 2012 survey was 64 out of 65 countries. The results of the PISA assessment in previous years also showed a lower rank. These findings arouse Indonesian government through the ministry of education to cultivate literacy for all students. To promote literacy, the Ministry of Education and Culture to develop the Gerakan Literasi Sekolah (School Literary Movement). GLS is a comprehensive effort that involves all of the school community (teachers, students, parents) and the community, as part of the ecosystem of education (Kementerian Pendidikan dan Kebudayaan, 2016). The literacy movement should not only be interpreted as a motion of reading but it promotes the growing of high-level thinking skills through reading. Literary Movement Schools are expected to run with the correct meaning as an effort to foster literacy, including scientific literacy for future generations.

New Direction of Science Education

In the past decade educational institutions aware of the need for re-orientation of the purpose and process of teaching and learning. This policy aims to use education as a means to develop students into "creative thinker", "lifelong learners" and "change leaders". The two movements that are the focus of the policy is changing of teaching and learning process ie "teach less, learn more" and "innovation and enterprise". The key initiatives of the reorientation is emphasizing the use of innovative teaching approaches to engage students in learning (Lim & Pyvis, 2012).

Reorientation of the objectives and the learning process of science is based on the importance of educating students to prepare themselves for a successful life in the 21st century. In the future, students will live as adults many tasks (multitasking), many aspects (multifaceted), controlled by technology (technology driven), highly diverse and dynamic (vibrant). Therefore, instruction should be learn students to live in the information age; empower students to be able to use the knowledge and skills they already had to use today's technology to discover new things in the future; prepares students to be able to think for themselves, make informed decisions, develop expertise, and continuous lifelong learning. government and schools are responsible for building superior society, have a better quality of life, advanced economies, and able to compete for life in the digital age.

Education is expected to educate students to master the scientific literacy which is a competence that is used in the workplace in the 21st century. According NCREL and Metiri Group (2003) the literat competence owned by generations of the 21st century include academic skills, thinking skills, reasoning, collaboration and agility harness technology. Partnership for 21st Century Skills formulate 21st century skills into three general skills, namely 1) the skills related to information and communication; 2) thinking and problem solving skills; and 3) interpersonal skills and self-regulating skills. In another reference Partnership for 21st Century Skills in collaboration with the National Science Teachers Association (NSTA) describes the necessary 21st century skills necessary to students in the context of science education, such skills are creativity and innovation, critical thinking and problem solving, as well as literacy skills. Literacy skills that should be developed are scientific communication, collaboration, information literacy, media literacy, information and communication technology literacy, flexible and adaptive, self-initiative and self-directed to learn, have cross-cultural social skills, productive and accountable, as well as leadership and responsibility.

At this time the need for a professional in science and technology increased (mikser, Reiska, & Rohtla, 2008). It is important for Indonesia because the number of students interested in getting into the field of science is still high. An important goal of science education in schools is twofold. First, science education aims to educate and motivate students for a career as a scientist and expert in the field of science and technology. Second, science education aims to prepare all children to have knowledge and understanding of the world around them and prepare them to be citizens of informed science, and able to run effectively and make decisions about science issues that affect human life. We are committed to the vision of the 21st century knowledge and skills of scientific literacy for all. It is important for educators to master competencies that ensure positive learning outcomes for students (Partnership for 21st Century, 2010) include:

1. Align content and pedagogy with today's technology and develop the creative ability to use technology to meet the learning needs;
2. Aligning learning with the standards of knowledge and skills of the 21st century;
3. Balancing the direct teaching strategies with project oriented teaching,
4. Use a variety of assessment strategies to evaluate student performance (including formative / assessment for learning, portfolio, summative);
5. Participate actively in the learning community;
6. Acting as a mentor and coach with fellow peer educators;
7. Use a variety of strategies to serve a diverse student and create an environment that supports learning diferentiated;
8. Being a lifelong learner.

Teaching is not lecturing, studying instead of listening to lectures and taking notes. learning is constructing new experiences and knowledge. The ideal teacher understands how students learn and control all the factors that impact on the quality of students. All the variables that affect the outcome of learning is used as a basis to understand, choose, and determine approach to foster learning.

In the paradigm of the new education, traditional instructional approaches such as "lectures, drills, exercises", "one method for all students", "there is only one answer and the correct way" to be stopped in schools (Lim & Pyvis, 2012) , This approach was replaced by a progressive pedagogical approaches, such as collaborative learning and diferentiated learning as well as the use of ICT in teaching and learning.

Reorientation of Curriculum and Science Teaching

The science teacher has a central role in promoting science literacy education. National agenda 9 year basic education is the right program for the effort to foster scientific literacy. Therefore, reform of science education is done at school level as well as in science teacher education. Science teacher education curriculum was developed following the needs of 21st century learners curriculum is a framework that develops scientific literacy and the expected impact on the quality of graduates. Education Curriculum is not currently sufficient to provide the knowledge which is then stored and used in the future, education must help students learn so that they are able to manage the changing demands of technology, information, work, and social conditions (Barron & Chen, 2008).

Teacher is a typical profession related to the facilitation of the learning process. Failure of one teacher has a broad impact and across generations, which affects the life of society and nation. higher education teacher candidates has a mission to produce qualified teachers canddate, which is capable in performing the task of teaching and learning that are characterized by the ability to implement active learning, innovative learning, and joyfull learning or active

learning in school (ALIS). The educational process in higher education teacher candidate should be designed and developed based on the principles of active learning in higher education (ALIHE) or student-centered learning (SCL).

Basically teaching is to solve the problem, so that a teacher should be able to identify and solve problems in the classroom, including taking a decision. Teachers need to understand the development of professional knowledge about teaching and improve their teaching practices through reflection (reflection on practice) and views of other teachers. This includes thinking about teaching and learning from a variety of perspectives to develop an understanding of teaching and learning situation in depth (Loughran, Berry, & Mulhall, n.d.). Teacher education need to develop academic culture in the form of a process of reflection and problem-solving as a means undertaken to foster competence of the prospective teachers, for example through the lesson study.

Teacher education is also linked to the question "what science education is needed by young people today?", According to the NSTA (2009) science education today aims:

1. Preparing students for a career in science and technology (pre-professional training);
2. Equipping students with practical knowledge of how nature and objects work (utilitarian purpose);
3. Build scientific literacy of students to become literate people participated in information and understanding, explaining, and resolving the issue of science (democratic/ citizenship purpose).
4. Develop students' skills in scientific thinking, scientific understanding, scientific work as a means of civilizing the intellectual (*cultural/intellectual purpose*).

Naumescu (2008) and NSTA (2009) explains that the teacher must display practical teaching skills:

1. create new ideas in teaching science;
2. present the curriculum in an international perspective;
3. develop curiosity of students and appreciate different cultures;
4. have knowledge of the scientific capabilities of students (in accordance with the development of age);
5. have knowledge of a meaningful assessment;
6. integrate science, technology, environment and society in a global perspective;
7. understand and analyzed the issues in daily life;
8. open to inquiry and innovation;
9. adapt the science curriculum to the diverse interests and talents of students.

"What makes great teaching?" (Coe, Aloisi, Higgins, & Major, 2014) gives an answer that great teaching is effective teaching improve student achievement using indicators that are essential for success in the future. Variables that influence the effective teaching is as follows: Pedagogical content knowledge (Strong evidence of impact on student outcomes)

1. Quality of instruction (Strong evidence of impact on student outcomes)
2. Classroom climate (Moderate evidence of impact on student outcomes)
3. Classroom management (Moderate evidence of impact on student outcomes)
4. Teacher beliefs (Some evidence of impact on student outcomes)
5. Professional behaviours (Some evidence of impact on student outcomes).

In order to achieve the successful implementation of a new curriculum that supports progressive pedagogy, teachers must be proficient in three areas of professional competence: subject matter content knowledge; pedagogical knowledge; and pedagogical content knowledge (Chen, 2008). These three kinds of competencies are interrelated to one another. Teachers who have good content pedagogy understand the difficulties of learning related to the subject that the students might face. Science teacher who master the content will be able to choose the

content that is more effective in promoting high-level critical thinking skills through the "ask a question cognitively challenging" and "reduce misconceptions." Instead, teachers lack knowledge of content, pedagogical knowledge and pedagogical content knowledge will not be able to promote active learning in the classroom, and tend to teach with just repetition and memorization. It is known that the acquisition of new knowledge for innovative science teaching depends on personal factors and institutional (Davis, 2003). Therefore, the acquisition of pedagogical content knowledge toward quality science education becomes the main function of the teacher education institutions.

Scientific Literacy, Critical Reading, and Writing Critically

Scientific literacy is the ability to know the facts and the basic concepts of science and have an understanding of how science works (Yalcin, Acisli & Turgut, 2011). Scientific literacy is the ability to creatively utilize appropriate knowledge based on scientific evidence and scientific skills, especially related to daily life and career (Holbrook & Rannikmae, 2009). Laherto (2010) describes the scientific literacy as the ability to hold opinions and to make decisions about social issues related to science and technology.

Scientific literacy is also defined as the skills to use scientific knowledge in real situations and using evidence and data to evaluate the quality of information and scientific arguments (Dragos & Mih, 2015). Furthermore, the OECD (2003) explains that science literacy is the ability to use scientific knowledge to identify questions and to draw conclusions based on the evidence in order to understand and help make decisions about the natural world and the changes due through human activity. Science literacy dimension contains basic knowledge of scientific concepts and dimensions of the scientific process basing conclusions on evidence and scientific reasons (Hobson, 2008).

An individual can be said scitifically literat if the person understands the science, the nature of science (the attitude and the process of science) and its relationship with society and the environment (Turiman, Omar, Daud, & Osman, 2012). In practical activities, Toth & Graham (2015) explains that individuals who scitifically literat has the ability to evaluate a variety of news reports about the everyday problems with a critical attitude towards the information, which means using the values and norms and ideas based on evidence.

Scientific literacy is very important in the development of an educated society. Laugksch, 2000; Salamon, 2007; Foster & Shiel-Rolle, 2011) describes that there is a connection between science literacy and the economic prosperity of a nation. Country with citizens who scitifically literat that will have high competitiveness. In the individual level scientific literacy improve understanding of science and technology in a world dominated by science and technology (personal fulfillment and its relationship to daily life).

3Rs (Reading, Writing, and arithmetic) are the three basic skills are the foundation for the development of scientific literacy. Reading is a basic skill in the development of scientific literacy. Understanding the science text requires reading comprehension skills. Snow (2002) defines the skills of reading comprehension as a process of filtering and constructing meaning through interaction and involvement with written language (text or reading). Skills of reading comprehension is a complex task that describes a range of skills and processes (Oakhil & Cain, 2007) that requires technique, skills and cognitive abilities (Oakhil, Cain & Elbro, 2015). According to Magliano, Millis, Ozuru & McNamara (2007) reading comprehension is the result of a complex interaction between the wealth of text and what readers bring to reading situations.

Reading comprehension is an important precursor of critical reading. Critical reading is an important skill to support critical writing. Students who have the ability to read critically understand text that reads, capable of assessing an argument based on evidence and scientific

arguments, and able to take the decision to accept or reject the arguments, opinions and conclusions of the text being read. Critical reader will understand the meaning content of the sentence, the content of reading and also "beyond the line".

Critical reading is a collaboration between the reader and the writer. It offers the reader the ability to be an active participant in the construction of the meaning of the text they read and use meanings to meet her/his needs. Reading and writing are two separate activities, but both have a close relationship. Critical writing ability is the result of a critical reading.

The Challenge: Cultivating Scientific Literacy Of 21st Century Learners Through SCL

The scientific literacy of students can be foster by improving the learning process and create a learning environment that is safe, supportive, and comfortable for ongoing learner-centered learning. Student-centered learning (SCL) is a learning approach that puts the student as the main variable that determines the content, activities, materials and speed of learning. This teaching model puts students at the center of learning process. The instructor (lecturer, teacher) gives students the opportunity to learn independently and effectively. Independent learning is learning that is driven from yourself, including ideas, motivations, and intentions; and involves collaboration with teachers or other learners (McKendry & Boyd, 2012).

Traditional learning model is replaced by SCL approach with the intention of empowering experience active thinking, giving the task in the form of open-ended problems that require critical and creative thinking that can not be solved just by reading textbooks, including simulation and role playing, and cooperative learning (team- based learning). Implementation SCL can move the motivation to learn, strengthen retention of knowledge, deep understanding, and foster a positive attitude towards science (Froyd & Simpson, 2000).

Learning strategy to improve scientific literacy is constructed by combining reading, writing, berinkuiri, can be done with a few strategies are as follows.

1. Teaching by using problem-based learning and inquiry-based learning (Salamon, 2007), with emphasis on the process of investigation that combines the knowledge understanding and mastery the strategies to solve everyday problems (Oluwatelure, 2012).
2. Designing a curriculum that develops knowledge of science, the nature of science, and the application of science in technology and its impact on the environment and society (Sothayapetch, Lavonen & Juuti, 2013).
3. Contextual learning strategy that balances learning activities inside and outside the classroom (West, Hopper &Hamil, 2010).
4. Designed an integrative learning pedagogical approaches include discussions, scientific inquiry, scientific writing, and argumentation (Villanueva, 2010).

Inquiry is believed to be one of the teaching strategies that are beneficial to develop scientific literacy. Inquiry is an investigative process that begins with the identification problem, formulating hypothesis, testing of hypothesis, data collection, and the formulation of conclusions (Trowbridge & Bybee, 1990). Scientific inquiry refers to the work of scientists who study nature and provide explanations based on evidence (Banerjee, 2010). Inquiry has been proposed as a primary strategy for teaching science (National Research Council, 1996; Tan & Kim 2012). Inquiry is able to improve student achievement, especially in the aspect of problem-solving skills, the ability to explain the data, critical thinking, and understanding of concepts in science learning (Chang, Sung & Lee, 2003). In science learning, inquiry and experience of students in the classroom should be combined so as to allow students to use scientific reasoning and critical thinking to develop their understanding of science (Banerjee, 2010), and develop problem solving skills (Trna, Trnova & Sibor, 2012). The essence of inquiry learning is to

manage the condition or the learning environment of students with enough guidance to find scientific concepts and principles (Trowbridge & Bybee, 1990).

Conclusion

The purpose of science education is to prepare students as prospective professionals in science and technology and foster science literacy of the 21st century for all citizens. Critical reading, scientific writing, and scientific inquiry is a framework for development of a culture of scientific literacy. Inquiry is believed to be one of the teaching strategies that are beneficial to develop scientific literacy. In the school literacy practices, critical reading, scientific writing, and scientific work through scientific inquiry integrated in science lesson.

References

Banerjee, A. 2010. Teaching Science Using Guided Inquiry as the Central Theme : A Professional Development Model for High School Science Teachers. *Science Educator,* 19(2):1-9.

Barron, B., & Darling-Hammond, L. 2008. Teaching for meaningful learning: A review of research on inquiry-based and cooperative learning. Edutopia, The George Lucas Educational Foundation

Chang, K.E., Sung Y.T., & Lee, C.L. 2003. Web-based Collaborative Inquiry Learning. *Journal of Computer Assisted Learning*. 19: 56-6.

Coe, R., Aloisi, C., Higgins, S., & Major, L.E. 2014. What makes great teaching ? Review of the underpinning research, (October), 57. Retrieved from http://www.suttontrust. com/researcharchive/great-teaching/

Dragos, V. & Mih, V. 2015. Scientific Literacy in School. *Procedia Social amd Behavioral Science*, 209(2015): 167-172.

Foster, J.S. & Shiel-Rolle, N. 2011. Building scientific literacy through summer science camps: a strategy for design, implementation and assessment. *Science Education International*. 22(2): 85-98.

Froyd, J., & Simpson, N. 2000. Student-Centered Learning Addressing Faculty Questions about Student- centered Learning What is meant by Student-centered Learning (SCL)?

Glynn, S.M., & Muth, K.D. 1994. Reading and Writing to Learn Science: Achieving Scientific Literacy. *Journal of Research in Science Teaching*, *31*(9), 1057–1073. http://doi.org/10.1002/tea.3660310915

Hobson, A. 2008. The Surprising Effectiveness of College Scientific Literacy Courses. *The Physics Teacher*. 46: 404-406.

Holbrook, J., & Rannikmae, M. 2009. The Meaning of Scientific Literacy. *International Journal of Enviromental and Science Education*. 4(3): 275-288.

Hurd, P.D. 1998. Scientific Literacy : New Minds for a Changing World. *Science Education*, *82*(3), 407–416. http://doi.org/10.1002/(SICI)1098-237X(199806)82:3<407:AID-SCE6>3.3.CO;2-Q

Kementerian Pendidikan dan Kebudayaan. 2016. *Desain Induk Gerakan Literasi Sekolah*. Jakarta: Direktorat Jenderal Pendidikan Dasar dan Menengah, Kementerian Pendidikan dan Kebudayaan.

Laherto, A. 2010. An analysis of the educational significance of nanoscience and nanotechnology in scientific and technological literacy. *Science Education International*. 21(3): 160-175.

Laugksch, R.C. 2000. *Scientific Literacy: A Conceptual Overview*: John Wiley & Sons, Inc.

Liliana, D., & Florina, P.S. 2015. Education, Knowledge and Innovation from a Mechatronics Perspective. *Procedia - Social and Behavioral Sciences*, *203*, 205–209. http://doi.org/10.1016/j.sbspro.2015.08.283

Lim, P., & Pyvis, D. 2012. How Singapore junior college science teachers address curriculum reforms : A theory, *22*(2), 127–148.

Liu, X. 2009. Beyond science literacy: Science and the public. *International Journal of Environmental and Science Education*, *4*(3), 301–311.

Magliano, J.P, Millis, K.A, Ozuru, Y & McNamara D.S. 2007. Multidimensional Framework to Evaluate Reading Assessment Tools. Dalam McNamara (Ed). *Reading Comprehension Strategies Theories, Interventions, and Technologies*. (107-136). New Jersey: Lawrence Erlbaum Associates, Inc.

Mckendry, S., & Boyd, V. 2012. Defining the " Independent Learner " in UK Higher Education: Staff and Students' Understanding of the Concept. *International Journal of Teaching and Learning in Higher Education*, *24*(2), 209–220. Retrieved from http://www.isetl.org/ijtlhe/

Mikser, R., Reiska, P., & Rohtla, K. 2008. Science teachers' interpretations about inter-disciplinary teaching. Proc. of the Third Int. Conference on Concept Mapping. Tallinn, Estonia & Helsinki, Finland.

National Research Council. 1996. *National Science Education Standards*. Washington, DC: National Academy Press

NSTA. 2009. *NSTA Position Statement*. International Science Education and the National Science Teachers Association.

Naumescu, A.K. 2008. Science Teacher Competencies In A Knowledged Based Society, *Acta Didactica Napocensia, 1*(1).

NCREL & Meitri Group. 2003. *enGauge 21st Century Skills: Literacy in the Digital Age*, (Online), (http://www.ncrel.org/engauge.org/engauge), diakses pda tanggal 12 Maret 2016.

Norris, S.P., & Phillips, L.M. 2003. How literacy in its fundamental sense is central to scientific literacy. Science Education, 87, 224–240.

Oakhill, J & Cain, K. 2007. Issues of Causality in Children‟s Reading Comprehension. Dalam Danielle S McNamara (Ed). *Reading Comprehension Strategies Theories, Interventions and Technologies*. (47-72). New Jersey: Lawrence Erlbaum Associates, Inc.

Oakhill, J., Cain, K, & Elbro, C. 2015. *Understanding And Teaching Reading Comprehension*. New York: Routledge.

OECD. 2003. *PISA 2003 Technical Report.* OECD.

Oluwatelure, T.A. 2012. Investigation into the Scientific Literacy Level of the Nigerian University Undergraduates. *British Journal of Education, Society & Behavioural Science*, 2(2): 139-149

Partnership for 21st Century & the American Association of Colleges of Teacher Education. 2010. *21st Century Knowledge And Skills In Educator Preparation*.

Salamon, E. 2007. *Scientific Literacy in Higher Education*. University of Calgary: Commissioned by the Tamaratt Teaching Professorship.

Snow, C. 2002. *Reading For Understanding Toward R&D Program in Reading Comprehension*. Pittsburgh: RAND.

Sothayapetch, P., Lavonen, J, & Juuti, K. 2013. An Analysis of Science Textbooks for Grade 6: The Electric Circuit Lesson, *Eurasia Journal of Mathematics, Science & Technology Education*, 9(1), 59-72

Tan, K.C.D., & Kim, M.. 2012. *Issues and Challenges in Science Education Research*. New York: Springer Dordrecht Heidelberg New York London.

Trowbridge, L.W & Bybee, R.W. 1990. *Becoming a Secondary School ScienceTeacher*. Melbourne: Merill Publishing Company.

Trna, J., Trnova, E & Sibor, J. 2012. Implementation of Inquiry-Based Science Education in Science Teacher Training. *Journal of Educational and Intructional Studies in the World*. 1(4): 199-209.

Turiman, P., Omar, J., Daud, A.M. & Osman, K. 2011. Forestring the 21st Century Skills through Scientific Literacy and Science Process Skills. *Procedia Social amd Behavioral Science*, 59(2012): 110-116.

Toth, E.E. dan Graham, W.V.U. 2016. Preparing scientifically literate citizens: pre-service teacher candidates' use of normative and logical thinking for critically examining news-media. lectronic Journal of Science Education. 20(1): 1-17.

Unesco. 2006. Understandings of literacy. *Education for All Global Monitoring Report*, 147–159.

Villanueva, M.G.F. 2010. *Integrated Teaching Strategies Model for Improved Scientific Literacy In Second-Language Learners*. Thesis, Nelson Mandela Metropolitan University.

West, J., Hopper, P. F., & Hamil, B. 2010. Science Literacy: Is Classroom Instruction Enough?. *National Forum of Teacher Education Journal*. 20(3): 1-6.

Yalcin, S.A., Acisli, S., & Turgut, U. 2011. Determining the Levels of Pre-service Science Teacher's Scientific Literacy and Investigating Effectuality of the Education Faculties about Developing Scientific Literacy. *Procedia Social amd Behavioral Science*, 15(2011): 783-787.

Individual Business Liquidation: How Tempe Entrepreneurs in the Sutojayan's Village feel Disadvantage?

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Abstract: People in the Sutojayan's Village has great potential to stock tempe, as one of the flagship products of Malang. In there village, a lot of citizen are tempe entrepreneur. There are 55 tempe entrepreneur in 2012, but in 2015 only remaining 47 tempe entrepreneur. This drastic decline triggered a feeling of disadvantage of business from entrepreneur, so they change profession. It does not according with the village goverment's efforts to stimulate tempe entrepreneur with providing business equipment, provide training product innovation, and various other types of education. Therefore, this study try to know the feeling disadvantage of tempe entrepreneur in the Sutojayan's Village. Data was collected using a qualitative approach, phenomenology. Samples were taken using snowball sampling technique. Data taken by using in-depth interviews. Observation, and documentation were also used to support this research. In this study, the researcher acted as the instrument and at the same time acting as data collector. Examination of the validity of data using triangulation. The results showed that the micro-scale tempe entrepreneurs in the Sutojayan's Village feel disadvantage when it can not meet their daily needs. This was triggered by the failure production, inability to sell all the products, or inability to collect accounts receivable. Hence, advice from this study is that the goverment should emphasize the provision of education to determine profit or disadvantage entreprises account, so that employer realize if business really suffered a disadvantage or not. In addition, tempe entrepreneur should be given provisions ability to innovate products that are not sold or failure of production, proficiency in product marketing, and expertise to manage accounts receivable. Future research could classify business disadvantages by the number of dependents and income, so we know about individual business liquidation based on the level of family income.

Keywords: Individual business liquidation, entrepreneur, disadvantage

Sutojayan is a village that has significant potential in developing business sectors tempe. Hereditary expertise in making tempe owned by the majority of the population there. Until the year 2012, there were 55 entrepreneurs sustain the life of the production and sale of tempe. Village authorities stated if this number continues to decline, as employers feel the loss.

The village head said if the feeling of loss was apparently triggered by an inability to compete in developing the product. Various types of training and aid has actually been granted, to encourage entrepreneurs to develop their business tempe, but not all employers tempe implement the results of the training. The transition from tempe entrepreneurs to other professions was also unstoppable. This showed a boost of business development less successful.

This research is the phenomenon of the declining number of men expressed his tempe entrepreneurs in the village Sutojayan, associated with the reason they liquidated. Perception businessman close the business because of the loss will be the main focus of discussion in this study. If in accounting, loss occurs when income is smaller than operating expenses, then what perspective "business losses" the same is true of tempe entrepreneurs in the village Sutojayan?

METHOD

This study used a qualitative approach to the type of phenomenology, in order to produce an in-depth information related to the research *topic.* Johnson and Christensen (2004: 354) writes that the study describes the phenomenology of consciousness and experience of a phenomenon. Based on what is revealed by Creswell (2007: 59-60), the type used is phenomenological *transcedental / psycological,* where researchers developed a structural description of the experience of others, so that the researchers did not focus on the interpretation of the researcher, but rather on a description of the experience of participants. Research related phenomena like to present how the micro assume that they have gained an advantage over the business.

Population and Sample

The research location in the Village Sutojayan, especially micro and small entrepreneurs tempe. The informant early in the study of PQ1. PQ1adalah former small-scale producers tempe entrepreneurs, which is currently only a micro-scale entrepreneurs. He decided to minimize the effort over 15 years to support his family. He is one of tempe entrepreneurs successful small-scale, but currently only tempe production pickup. Throughout the course of his business, PQ1 never have financial records or customer records.

Information from informants PQ1 later developed into the next until finally found the answer to this research. Differences in life background and experience in the financial statements would give a different picture of the informant. Interview with PQ4 deemed to have answer research questions.

Data source

The research data was taken using the interview to the micro-scale tempe entrepreneurs in the village Sutojayan. Furthermore, recording interviews will be transcribed into words. Transcript, enables researchers to search for the next important revelation marked and registered. List significant statement will help researchers to formulate the theme of data. Then described the theme of the data will be fundamental characteristic common experience or experienced by informants. The results of this description will be confirmed to the informant to ascertain the truth of what was captured by the researchers based on the results of interviews.

Data analysis

Data analysis is the process of simplification of data into a form that is easier to read and interpret. The analysis process is an attempt to determine the answers to questions *about:* formulas and lessons learned or things that we have gained in the research project. The data analysis also called data processing and interpretation of the data is a series of study, grouping, systematization, interpretation and verification of data so that a phenomenon has social, academic and scientific. At this stage the researchers do the decomposition process the data according to its parts and penelaan the part itself and the relationship between the parts to obtain a proper understanding and the understanding of the overall meaning.

Checking Validity of Data

The analysis is based on the book terstrutur interview Johnson and Christensen (2004: 367-368). Following the data analysis stage interview is a kind of phenomenological qualitative research. Data interviews were recorded and transcribed for analysis. Data analysis process starts with examining all available data from various sources are still dealing with the subject of study from interviews and documentation. Further interviews and created a framework dikodingkan results. Qualitative data analysis used was *thematic analysis.* The analysis was done using *open coding* scheme to organize the data and implemented the entire theme of the concept of profit. Each interview immediately transcribed and read several times by investigators and checked for accuracy. Then made a horizontal mapping to eliminate repetitions in response informants. The statements were different then formulated and extracted with articulating the themes underlying the quote word for word from an informant. *Cross case analysis* was used to compare the results between each informant interviews, as it is said Jhonson and Christensen (2004: 379) that *cross care analysis is searching for similarities and differences across multiple cases.*

After thematized, then researchers confirmed these results to the informant, in order to avoid misunderstandings. Furthermore, at the time of presentation of the data, the researchers collected narratives from each informant into the themes are the same, then do a comparison with literature or theory. The results of this analysis will be a narrative description associated with how they perceive that they themselves have earned income.

RESULT AND DISCUSSION

Tempe entrepreneurs out of business for various reasons. PQ1 cease their activities soybean supply to retailers because they feel the activity is less definite advantage. Sometimes retailers do not want to buy tempeh from PQ1 for tempeh in a defective condition. Such circumstances encourage employers tempeh to stop their business activities in meeting the demand for retail merchants, as stated PQ1.

> *"Nggeh sing mendet-mendet kulo prei ni. Masalah e lek ono rusak e prei mboten mendet niku nopo. Ono bosok e tempe niku lho. Rugine malih akeh. Titik.. titik sing penting iso lancar ngeten lho. Hehe.. bener kathah, oleh e akeh, tapi lek ono risiko ne nggeh rusak iku maleh rugi. Lek bungkil kan maleh mbuwak a lek bosok niku*"

Characteristics of customers, suppliers, who only want to buy when the product quality, causes the amount of business risk borne by the employer. This causes
the risk of production failures informant recognized as a factor triggering the closure of the business. The inability to sell products that are less than perfect at normal prices often experienced entrepreneurs. PQ2 more than 15 years of selling state that few customers who deliberately seek products manufactured less than perfect. The following statement PQ2.

> "*Kulo bosok aken kadanganu, biasae rego 8.000 ya malih 5.000, 4.000, separone. Malih rugi a. lek dicampuraken kan mboten pati nemen-nemen. Tapi lek kathah nggeh disade bosokan, lek dicampuraken sedoyo nggeh melok bosok mangke. Lek e kantun kedik-kedik ngonten, 2 alir 3 alir ngoten kulo campuraken*"

Price tempeh produced less than perfect is usually only half the normal price, so that businesses gain was reduced, even not making a profit. Experienced entrepreneurs usually cope with unsold product fails, the raw material mix it with the new product. But the numbers also can not be many, only about 10% of the new products that will be produced.

Various ways in which the employer is done to maintain business continuity. Unfortunately, micro and small entrepreneurs who are less willing to take the risk of making them feel like a failure, only when the failure of production.

The lack of ability to capture a large market share is also one reason for the termination of a business. Instability customer interest to buy products, and the risk of failure is quite difficult to avoid the production of pressing employers to stop this tempe business. Solutions with innovating products are not followed by all employers, not just because it was not able to innovate, but because of fear of taking risks. Fear to take this risk has been much discussed by academics, one research Andayani (2008) which showed a preference SMEs on innovation are relatively high but they tend to be *risk averse* (risk aversion), and tend to look for environmental uncertainty is low so that its performance is not maximized.

Entrepreneurs who dared to take the risk, for example by providing credit sales services, sometimes must end the courage to close the business. PQ3 expressed closing his business background as follows.

> "*ya dulu banyak pelanggan saya, terus dinakali uwong mbak. Ngambil ngambil tempe, kan wes biasa ne ngambil. Lha kok ambil tempe, ambil beras terus ilang. Wes sampek sak niki dereng saget mentas. Makane kulo dol i kabeh niki teng nggriyo telas. Sik dodolan omah kulo teng wonokerso cedek masjid dereng pajeng ingkang pas. Mboten kesusu, nggeh kesusu. .... sak niki mboten nggawe tempe malih mpun. Modal e telas. Singen kulo nggeh utang bank, mboten saget mbayar menawi wonten sing nakal ngoten. Mboten wantun mpun. Pokok sak niki cekap dalem sehari hari. Alhamdulillah taksih nggadah pelanggan. Nggeh pelanggan kulo singen ingkan mundhuti tempe.... kulo sak niki dodolan tempe, mendet ingkang sae, pelanggan kulo singen nggeh purun.... dereng wantun menawi ndamel malih, dereng saget*."

PQ3 statement is no longer triggered by failure of production, but due to the inability to collect receivables. Limitations pengoleksian data from customers led to a hard-charging entrepreneur receivables. Micro and small entrepreneurs usually do not have a good record with the terekap associated with the customer. PQ1 and PQ4 states that have never had a business bookkeeping. No longer a surprise when the information associated with the customer only recorded in the brain, or PQ1 and PQ4 call with *niteni* (remember). Here's an explanation PQ3.

> "*wong ya mundut ping papat ping limo, yowes dilayani lek jumlah e bertambah. yo percoyo to, nambah e kan sak titik sak titik. .... yo tekon omah e nang ndi, dodolan ning ndi... tapi ya jenengen apes, ditagih ya terbatas waktuku mbak. Ya digoleki wes an tapi wong e yo mbulet ae, kadang malah nggak ketemu, kabur ngoten lho. Ya sik berusaha, tapi suwe suwe kesel wes an mbak*"

PQ1 experience is as follows.

> "*lek aku sih alhamdulillah nggak sampek akeh ilang duwit e. Mek e njupuk ping sepuluh misal e, moro wes dicepak i nggak njupuk maneh. Yo duwit ku ya katut, tapi kan nggak akeh, kayak separone tok. Tapi ya dagangan ku malih nambah. Lek gak kedol kan ya bosok mbak. malih rugi*"

The experiences of the informants in this study shows the difficulty of maintaining customer loyalty, so they often choose to switch to another business. For employers, businesses that do not enable them to meet their daily needs to be closed. This is consistent with what was found by (2006: 32), where people become entrepreneurs because of the resulting profits. Business profits are used for various needs of entrepreneurs, there are mengguankannya to meet daily needs, invest into another business, or to meet their spiritual needs (Nanda, 2016).

Businesses that do not generate enough profit, or even businesses that are not profitable, will be closed. Sprague in Godfrey (2010: 258) states that the whole purpose of business is to increase the wealth of increased ownership. When what is owned by businessmen do not

increase, then it indicates a loss of business. Potential losses would make entrepreneurs out of business, and switched to other businesses.

The decision to close the business for micro entrepreneurs triggered by the inability of operating income to meet daily needs. This is according to research from Reijonen (2008: 616) which states that if the owner of micro and small scale businesses just want to make his life more rational, so do not pursue business growth. PQ3 stated as follows.

"*tujuan usaha ya digawe urip, gawe blonjo, nyekolahne anak e to mbak*"

The main purpose of business for the informant is indeed to meet daily needs. When the daily needs are met, the employer usually has a higher purpose as the goal of expanding investment (Nanda, 2016: 10). Non-fulfillment of daily needs is a major factor in the liquidation of businesses, especially for micro-scale tempe entrepreneurs in the village Sutojayan. Employers who make the effort tempe as its main business, admitted it would close its doors when it can not be relied upon to meet daily needs.

Conclusion

Micro entrepreneurs feel loss when it could not meet the daily needs of the crops. These circumstances often lead to micro entrepreneurs liquidate its business, and move on to other business. Production failure and inability to sell the product as a key trigger the closing of the business. In addition, the inability to attract accounts also make employers are not able to continue their business. Closure of micro and small scale enterprises which tidakberbadan this law is easy. Not produced again showed their tempe tempe business closure.

REFERENCES

Benz, M. 2006. Entrepreneurship as a Non-Profit-Seeeking Activity. *Article in International Entrepreneurship and Management Journal,* (online), (http://www.researchgate.net/publication/23756723).

Godfrey, et all. 2010. *Accounting Theory* (7 edition). Australia: Wiley

Nanda, H.I. 2016. *Persepsi Laba bagi Pengusaha Tempe Skala Mikro di Malang*. Tesis tidak diterbitkan. Malang: Pascasarjana Universitas Negeri Malang.

Nanda, H.I., et. all. 2016. The Perception of Interest for Small-Scale Tempe Entrepreneurs in Malang. *BEST Journals*, 4 (8):15-21.

Jhonson, B., & Christensen, L. 2004. *Educational Research (Quantitative, Qualitative, and Mixed Approaches,* (Second Edition). USA: Pearson.

Reijonen, H. 2008. Understanding the Small Business Owner: What They Really Aim at and How This Relates to Firm Performance. *Emerald Journal*, 31 (8): 616-619.

Preventive Maintenance in Vocational Schools in Malang City, Batu and Malang Regency

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Abstract: Preventive maintenance is an act of preserving the condition and readiness of school facilities and infrastructures. Educational facilities and infrastructures, including school buildings and utilities need to undergo scheduled and planned maintenances as they are included in one of instrumental input factors. The aim of this research is to enlist preventive maintenance measures, school facilities and infrastructures functionality, and school utilities' conditions. The data is collected through direct observations and in-depth interviews. From the research data in all observed schools (51 vocational schools), the schools generally do not keep preventive maintenance record. Scheduled maintenance for damaged building is not recorded and the rate of building damage is not monitored. Minor damages are commonly documented in the area of Malang City (604 buildings) and medium damages in the area of Malang Regency (316 buildings). The damages of the school buildings (minor, medium and severe) disrupt the functions of the building as it is considered dangerous for the students. Chipped floors in the damaged buildings can puncture and wound students during their activities.

Keywords: preventive maintenances, school buildings

Naturally, school facilities and infrastructures will gradually be damaged. The damages will begin to emerge due to weather influences, temperature changes, utilizing errors or lack of maintenance. These factors slowly alleviate the functions of school facilities and infrastructures that cause them to be depraved (Syafrudie, 2003). Routine and planned school maintenances are a way to prevent damages. The age of the facility and infrastructure, which are routinely treated, will be longer.

Preventive maintenance is a form of step that is conducted consciously to oversee the school facilities and infrastructures so they are in a ready to use condition. Preventive maintenances can also be defined as a minor reparation action for it only watches over the utilities until they can be optimally utilized. Therefore, the preventive maintenance activities are demanded to be planned and programmed in particular times.

The school infrastructure preventive maintenance activities consist of periodical checking, cleaning, and building and furniture painting. Other activities, including adjusting, cleaning, replacing, and calibrating the laboratory utilities, are also a part of efforts in preventive maintenances. In another form of preventive maintenance, there is a minor maintenance that is conducted in a building in a school unit. If necessary, replacing the components can be conducted in order to improve the facilities and infrastructures' performance so the facilities and infrastructures' operating expenses will be effective. In several vocational schools, the facilities and infrastructures' maintenances are often overlooked. It is repeatedly found that the school buildings' maintenances are often disregarded. Even though the maintenances are conducted, money allocation for maintaining the schools' facilities and infrastructures is very little. Preventive maintenance activities aim to watch over the facilities and infrastructures (physical buildings and other school utilities) so the age of the school facilities and infrastructures match with the former planning. By doing preventive maintenances, early school buildings' damages can be avoided. Education Minister's decree

number 031/0/2002 article 68 explicitly states that government organizes the preparation of materials, formulates the policy of schools' facilities and infrastructures standardization. It matches with Education Minister's decree number 129a/U/2004 dated on October 4th, 2004 about Minimum Service Standards in the field of education. In order to improve the education quality, government takes up any means possible to improve the education facilities and infrastructures' quality, including the buildings' and school utilities' standard.

Education infrastructure is one of the education resources that needs to get enough attention in the teaching and learning processes. The actual school infrastructure condition mapping is necessary as a reference in planning and building the vocational school buildings. That infrastructure condition mapping will give discretion to the schools and regions to conduct maintenance and procurement that suit the region financial capability.

Conducting direct preventive maintenances in the school buildings will improve the performance of supporting utensils, facilities and infrastructures. Preventive maintenances will minimize the repairing expenses in a large scale and be able to optimize the age of use of the buildings and supporting utensils. The implementation of the facilities and infrastructures' preventive maintenance program impels schools to deliver precise information in the maintenance of school buildings, laboratories and other supporting buildings. By conducting these activities, accurate data and analyses can be obtained regarding the conditions of the vocational school buildings in Malang City, Malang Regency and Batu City.

Preventive Maintenances

Preventive maintenances, based on Minister of Public Work's regulation number 24/Prt/M/2008 about building up keep and maintenance instructions, is included in post construction activities. In this school building maintenance phase, preventive maintenances are implemented periodically, routinely when the construction works have been completed. The works include 1) wall painting maintenance; 2) door and window frame painting maintenance; 3) anti termite maintenance on floors and round the building; 4) roof, ceramic floor and wall replacement maintenance.

Anchored in Minister of Public Work's regulation number 24 in terms of maintenance work categorizations, preventive maintenances consist of continuous (regular, routine) periodic maintenance, emergency reparation, total reparation and improvement. Continuous maintenances include cleaning drainage from garbage and dirt; cleaning up all rooms and schoolyard from garbage and dirt; cleaning up glasses, windows, chairs, cupboards; clearing grasses and bushes; cleaning up and watering toilets to maintain health.

Periodic maintenance activities contain maintaining and painting door and window frames, doors, walls and other building components that appear to be grimy; cleaning and repainting furniture (cupboards, chairs, tables, and the like); checking playing facility and field of ceremony security; repairing damaged roofs; coating cracked wall plastering; cleaning and drying puddle on floors or lobbies.

Emergency repairing includes repairing unexpected damages that will be dangerous if they are not repaired as soon as possible; temporary improvements are sought to be completed quickly so the damages will not worsen and teaching and learning processes are undisturbed. Bad preventive maintenance activities result in degrading building condition. Bad maintenances disrupt building functions and school activities, endanger students' security, and make the rehabilitation costs more expensive. If the maintenances are not conducted properly, toilet facilities will not be healthy and spread diseases. Grounded on Minister of Public Work's regulation number 24/2008, building maintenance activities are conducted on roofs; frames and

doors; walls; glasses; floors; toilets; electricity and clean water; furniture; sewer or dirty water drainages.

RESEARCH METHODS

This research focuses on high school facilities and infrastructures and everything that appears during the use of which. It also concentrates on building condition information and school building problem mapping.

Data and analysis of building conditions are the main information of this research that is related to the school facility and infrastructure preventive maintenances. This research is a descriptive research that describes the condition of vocational high school buildings in Malang City, Malang Regency and Batu City.

Table 1 Research Variable Description

NO	VARIABEL	INDIKATOR
1	Roofs	Roofs, *lisp lank*, ceilings
2	School building walls	cracks, plasters, wall paints, moss and crusts
3	Doors and windows	paints, hinges and hangers, locks
4	Floors	wholeness, slippage, colors, popping
5	Toilets	sewer, walls, toilets, water tub, walls and doors, accessories
6	Gutters	Conditions and functions

The population of this research is all school buildings in Malang City (21 schools), Malang Regency (24 schools) and Batu City (6 schools) that had been built from 1960 to 2013. The sample that is used to observe roof; all; door and window; floor; toilet; and gutter conditions at schools.

The data collection is conducted by observing every school, recording building conditions, and obtaining observance data based on the research variables. The data from the observation results is matched with vocational schools' data from Education Boards in Malang City, Batu City and Malang Regency.

The instrument trials are conducted in 5 vocational high schools in Blitar City. These trials are conducted to obtain feedbacks regarding instrument legibility items, and validation efforts about how instruments measure what should be measured. Instrument trials are utilized to test instrument level of reliability when they are used to do the measuring. The results of these trials are employed to improve and topple invalid instruments, and better the instruments that need to be preserved because their indicators cannot be represented by other instruments.

The data from the structured observation and interview results is processed to attain school condition data and observe vocational high school buildings' frequent symptoms of damage. In this research, the technique that is used is descriptive analysis technique; and data tabulation from the results of observations is done through school buildings' checklists. The data that is acquired from the research instruments is administered. The data that is collected in this research is in the form of notes on observation lists, and responses on the instruments. The data that is attained is analyzed descriptively to describe trends in every indicator. To find out about how the school preventive maintenance conditions are, the data analysis is conducted by examine the observation results in the field by utilizing Excel worksheet in Microsoft Office programs.

RESULTS

From 51 schools that are observed in Malang City, Malang Regency and Batu City, the observed data is tabulated as follows

Table 3 The Conditions of School Infrastructure Damage

REGION	SCHOOL TOTAL	MINOR	MEDIUM	SEVERE
Public/private vocational high schools in Malang city	21	604	7	1
Public/private vocational high schools in Malang regency	24	316	23	8
Public/private vocational high schools in Batu city	6	80	0	3

Based on Table 3, from 21 public and private vocational high schools in Malang City that are observed, there are 604 buildings with minor damages, 7 rooms with medium damages and 1 rooms in one certain school with severe damages. Whereas, from 24 public and private vocational high schools in Malang Regency, there are 316 buildings with minor damages, 23 buildings with medium damages and 8 buildings with severe damages. At the same time, from 6 observed schools in Batu City, there are 80 buildings with minor damages and 3 buildings with severe damages.

Figure 2 Medium Damages

Rooted in the levels of damage, school buildings in Malang Regency have the highest numbers of damage. There are 8 severely damaged buildings spread in 24 schools, 3 buildings spread in 6 schools in Batu City and only 1 severely damaged building in Malang City spread in 21 vocational schools. In the area of Malang regency, there are 23 buildings with medium damages spread in 24 schools, while in Malang City, there are 7 buildings with medium damages spread in 21 schools. Moreover, in Batu City, there is no building with medium damage spread in 6 schools.

Figure 3. Severe Damages

Anchored in Table 3, there are more buildings with minor damages in school buildings in vocational schools in Malang City compared with school buildings' conditions in Malang Regency and Batu City. There are 604 buildings with minor details in Malang City spread in 21 schools. If rated based on the level of minor damage, Malang Regency comes first with 316 buildings spread in schools, then Batu City with 80 damaged buildings spread in 6 schools.

Figure 1. Minor Damages

Table 4 School Infrastructure Conditions

Vocational High Schools Per Area	Rainwater Ducts	Water Disposal	Waste Disposal	Fire Prevention	Room Transition	Lightning Rod
Public/Private Vocational High Schools In Malang City	21	21	14	12	17	11
Public/Private Vocational High Schools In Malang Regency	20	20	17	6	11	11
Public/Private Vocational High Schools In Batu City	6	6	4	4	4	5

From 21 vocational schools in Malang City, all of them have rainwater ducts and water disposals. There are 14 out of 21 schools in Malang City that possess waste disposal facilities, and there are 12 schools in Malang City that own fire prevention facilities. Only 17 out of 21 schools that have room transition facilities and there are only 11 schools that retain sufficient lightning rods.

From 24 schools in Malang Regency, 20 schools have rainwater ducts and water disposals. There are 17 schools that possess waste disposals. Reviewed from the availability of the fire prevention facilities, there are 6 out of 24 schools that provide fire prevention facilities.

There are 11 schools that provide room transition facilities and only 11 vocational high schools that provide lightning rods in their school buildings.

During the observations of rainwater duct and water disposal facilities, all schools in Batu City (6 schools) have retained these facilities. There are 4 schools that own waste disposals, fire prevention facilities, and room transmissions. There are also 5 out of 6 schools in Batu City that have lightning rod facilities.

Generally, vocational high schools in Batu City possess better facilities than schools in Malang City and Malang Regency. There are more or less 70 - 90% schools in Batu City that are complemented with rainwater disposals, water disposals, waste disposals, fire prevention facilities, room transmissions and lightning rod facilities. The condition and completeness of facilities and infrastructures in Batu City are good for the facilities and infrastructures are in a good condition and functioning.

These facilities guarantee that the preventive maintenances are conducted. The availability of water ducts and water disposals elude classes and buildings at schools from being wet, muddy and humid; make the walls dry and moss free. The availability of rainwater ducts and water disposals assure the easiness in preserving the walls and their paints so they will be durable. Due to the availability of waste disposal, schoolyards, libraries, workshops, laboratories and sport facilities are going to be free from domestic wastes as a result of school activities.

Waste processing reassures that all school infrastructures are hygienic and look after all school residences so that they are always healthy and able to do their activities optimally. Fire prevention facility is one of preventive maintenance facilities that secure all buildings and supporting rooms at schools from breakages and failure to function due to fire. It also prevails on lightning rods. Lightning rods make sure all buildings at schools are protected from the possibilities of thunderstruck. Lightning rods also minimize the possibilities of breakage because of thunder, guarantee and take care of the durability of school buildings.

CONCLUSIONS

1) Generally, all observed schools do not possess any preventive maintenance documents so the rate of building damage and the data of damaged school buildings' improvement are not recorded. Damage volumes and frequencies in all observed schools are not recorded while preventive maintenance plans in all observed schools are not scheduled.
2) Malang City has the highest number of minor damaged building in public and private vocational high schools. There are 604 buildings with minor damages spread in 21 schools in Malang City. From the results of in-depth interview, schools usually do not have maintenance schedules for those rooms with minor damages. Even though the damages are not disruptive, those minor damages are going to extend to medium and severe damages.
3) Malang Regency has the highest number of medium damaged building in public and private vocational high schools from all observed areas. There are 23 buildings with medium damages in this regency. The results of in-depth interviews state that schools generally know that their infrastructures are damaged, such as popping on the floors and many cracked floors; not intact wall plasters; falling ceiling and many supported ceiling. There is no fixed preventive plan to repair all these damages in schools in the area of Malang Regency. These conditions begin to disturb the utilization of the room and injure the students for the cracked floors puncture and wound them during their activities.
4) There are 8 buildings with severe damages in Malang Regency, 3 buildings with severe damages in Batu City and 1 building with severe damages in Malang City. The damages happen in the form of uneven roof shapes. The arrangements of the roof, when seen from

afar, are bent. It shows that the supporting structures of the room are getting fragile and are, soon, going to fall apart. It frequently is caused by the supporting woods in the roof construction (gantries) are getting fragile. Inside the classes, many hanger ceilings are supported. These severe damages are really dangerous for the students and teachers when they are inside the classes or other buildings such as workshops, laboratories or libraries. These rooms need departing. These buildings cannot be used anymore.

5) From 51 schools in Malang City, Batu City and Malang Regency, most of them have owned some required facilities (rainwater ducts, water disposals, waste disposals, fire prevention facilities, room transmission facilities and lightning rods). There are several schools that are not complemented with some of those facilities. There are schools that do not have water disposals, fire prevention facilities and lightning rods. The availability of these facilities guarantees the implementations of preventive maintenance. The availability of water duct and water disposal evades classes and buildings from being wet, muddy and humid. It also secures the walls so that they are always dry and moss free. The availability of rainwater disposal and water disposal guarantee the easiness of wall and wall paint maintenances so the walls are going to be durable. The availability of waste disposal makes schoolyard, libraries, workshops, laboratories and sport facilities free from domestic wastes. Fire prevention facilities make sure that all buildings and supporting rooms at schools free from the breakage and failure to function because of fire. The availability of lightning rod secures the buildings from thunderstruck and minimizes the possibility of breakage from thunder, guarantees and takes care of the durability of school buildings.

Suggestions

1) School buildings' preventive maintenance is one of important factors in the success of teaching and learning processes. Preventive maintenance is one of essential factors in the viability of a school system. If the buildings are not well maintained, they will be damaged. Minor damages are going to lead to further damages. If these damages occur, schools will have to spend expensive expenses to repair the damaged buildings' functions. Schools are demanded to make and conduct preventive maintenance systems for the school buildings that are scheduled and planned. Types of maintenance, forms of maintenance, expenses, authorities and times of maintenance have to be comprehensively documented. It is suggested that schools have maintenance plans and provide supporting preparations.
2) Malang City has 604 buildings in public and private vocational high schools with minor damages spread in 21 schools. These damages consist of fallen *lips plank*, doors and windows with broken mirrors or stuck hinges, broken gutters or cracked floors. These damages have to be quickly repaired in order to prevent them from spreading out. By conducting preventive maintenances when the damages are still minor, repairing expenses (workers' wages, building materials and repairing time) will be able to be minimized so they will not strain schools' financial.
3) Malang Regency has the highest numbers of building with medium damages. There are 23 rooms from 24 schools with medium damages. In-depth interviews result in the fact that generally schools know about the damaged buildings' conditions. The medium damages in these schools include popping floors many cracked floors, cracked wall plasters, fallen ceilings and many supported hanger ceilings. These medium damages have the tendency to endanger students during the teaching and learning processes. In this phase, improvements cannot be put off anymore. They cannot be procrastinated. They have to be conducted now. It is due to the fact that procrastination in repairing the damages will put the students and teachers using the rooms in danger.

4) Vocational high schools that have buildings with severe damaged buildings, for example fractured gantries, fragile gording caused by moths, bent rooftops, should not be used anymore. Severely damaged buildings just have to wait for time to be fallen apart. It can happen anytime. It may happen the day after tomorrow or next month. Severely damaged buildings need to have fences so no one will enter the buildings in the future.
5) This is the time schools need to possess and save building documents, for instance plans of construction's pictures, so when there are problems with installation or building utilities, it will be easy to find the problems and anticipate the maintenances. Planning is needed in terms of preventive maintenance in order to anticipate building component problems. These efforts can be done by owning preventive maintenance documents, conducting minor improvements in school buildings and inserting maintenance components in school work plan and budget documents in order to be able to optimize the use of the school buildings.

REFERENCES

Corder, A. diterjemahkan Hadi, K., 1992, *Tenik Manajemen Pemeliharaan*, Erlangga, Jakarta.

Chanter, B., Swallow, P. 1996. Building Maintenance Management. Cambridge: Blackwell Science, Inc.

Corder, A., diterjemahkan Hadi, K., 1992, *Tenik Manajemen Pemeliharaan*, Jakarta: Erlangga

Djojowirono, S. 1988. Konstruksi Bangunan Gedung, Yogyakarta: Biro Penerbit Keluarga Siswa Teknik Sipil Universitas Gadjah Mada

Ebeling, E.C. 1997, An Introduction to Reliablity and Maintanability Engineering, Singapore: Mc Graw – Hill.

Jardine, A.K. S, 1987, *Maintenance, Replacement and Reliability*, New York: Pitman Publising,

Kepmendiknas Nomor 031/0/2002 *Tentang Organisasi Dan Tata Kerja Direktorat Jenderal Pendidikan Dasar Dan Menengah Departemen Pendidikan Nasional*

Kepmendiknas Nomor 129a/U/2004 Tentang Standar Pelayanan Minimal Bidang Pendidikan

Mangunwijaya, 1980. Pasal-pasal Penghantar Fisika Bangunan, Jakarta: Gramedia.

Permen PU Nomor 24/2008. Tentang Pemeliharaan Dan Perawatan Bangunan Gedung

Poerbo, H. 1995. Utilitas Bangunan, Jakarta: Djambatan

Praptono. 1999. Modul Perawatan Prasarana Sekolah, Jakarta: Dikmenum

Wiratno, S. 1997. *Analisis Kebutuhan Bangunan dan Perabot Sekolah Tahun.* Jakarta: Balitbang Diknas

Analysis of Economic Attitude and Working Satisfaction on Employees' Productive Working Behavior at Ikat Bandar Center in Kediri

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Abstract: The researcher is intended to analyze the strategy and ability of SMEs in improving human resources and developing a concept of productive working behavior measurement. The study aims at examining antecedent and mediation of working satisfaction as a consequence contribution of employer's productive working behavior. It employs economic attitude and working satisfaction variables as antecedent variable which plays pivotal role in improving productive working behavior. The present study employs survey method. Meanwhile, the sample is 150 employers of Ikat Bandar. It examines 4 hypotheses. The data is both nominal and continuum (interval, ratio, and ordinal) measured by exogenous and endogenous variables indicators. According to SEM (Structural Equation Modelling) data analysis with LISREL application program, the findings indicate that: (1) economic attitude has a positive effect on working satisfaction; (2) economic attitude has a positive effect on productive working behavior; (3) working satisfaction has a positive effect on employees' productive working of Ikat Bandar Center in Kediri, and (4) economic attitude has a positive effect on productive behavior through employees' working satisfaction at Ikat Bandar Center in Kediri.

Keywords: economic attitude, working satisfaction, productive behavior

The era of what so-called globalization is characterized by free competition in which requires organizations to act fast paced and rational as well as require the role of various components such as human resources, technology, and legal instruments so that organizational goals can be achieved. Human resources (HR) has the lead role in supporting the activities and performance of the company or organization. Human resources are people who are ready, willing and able to contribute to the achievement of organizational goals. HR is the most strategic element in the organization (Siagian, 2014). Nonetheless, HR is the primary ingredient in a company, therefore every company strives to have quality human resources because without qualified human resources, an enterprise will not run properly. The existing human resources within an enterprise (workplace) is required in order to work effectively, efficient quality and quantity of their work so well that the greater competitiveness of enterprises (Suhariadi, 2002). HR with high labor productivity allows the achievement of the goals set by the organization. The goal will not have been possible without the active participation of employees (Hasibuan, 2016). (Assagaf, 2012) stated that HR needs to have a reliable skill or skill in handling every job, because with the reliable skill, then it directly can improve the performance of the company.The betterment for effectiveness, efficiency and creativity in an organization depend on the willingness of people within the organization to contribute positively in addressing the changes. Demands the preparation of human resources quality and have high competence will be a very urgent and very important (Suhariadi, 2007).

Performance of human resources is one of the key factors in the company to create and have a sustainable competitive advantage (Laniwidyanti, 2010). To achieve good performance, employees are required to demonstrate appropriate behaviors for the company. Human always

play anactive and dominant roles in every activity of the organization, because people become planners, perpetrators and determines the realization of organizational goals (Hasibuan, 2016).

Demands to improve the quality of products and services that are reliable, in fact will drain all the resources they have, in the meantime, to remain (exist), the company should be able to increase productivity (Zurnali, 2011). Increased labor productivity is only possible by humans (Siagian, 2014). Optimal productivity can be achieved through the handling of the use of resources are used efficiently and effectively. Therefore, paying attention to the human element is one of the demands in the overall efforts to increase the productivity of labor (Siagian, 2014).

In the journal, entitled the process of forming productive behavior the work culture of the organization, (Burgess in Suhariadi, 2012) said that the increase in productivity can be made by combining the engineering company's work environment by physical factors and psychological workers as a variable influence. In fact, according to Riggs et al. (In Suhariadi, 2012) productivity improvement must be through engineering-economic calculations. Even if human factors are involved in the analysis of the study, the analysis process is to put the human being as the main factors that contribute to increased productivity. When productivity improvements for analysis of research involving humans, then we can see is the human behavior itself.

Not easy to bring productive behavior on the employee. (Suhariadi, 2007) described two factors that affect the productive behavior, namely environmental factors and individual factors. Environmental factors are affecting the working conditions of employees every day in achieving the goals set by the company that will indirectly bring productive behavior, such as organizational structure, salaries, bonuses and job climate. While individual factors are individual characteristics that appear in the form of mental attitude and implies the desire and efforts of individuals who are always trying to come up and improve the behavior of individual productive factors. Thus, it is more directed to the psychological state of a person raised in the behavior form. This is also mentioned by Litwin and Stinger in Gibson et al (in Suhariadi, 2001) which states that the appearance of a person's behavior is determined by two reasons. In other words, the behavior is a function of the (P) and situations (S), so that the mathematical language b = f (P, S). According Suhariadi (2002) productive behavior is basically made up of two types of behaviors simultaneously, namely the effective behavior and efficient behavior. Effective behavior is behavior that yields performance according to plan, while human resource as an organization has a wide range of needs, which if fulfilled provide motivation and work productivity of the employees. One of the challenges of managing human resources related to the needs of the employees is to create working conditions and environments that can satisfy various needs of employees.

A person tends to work very vigorously if satisfaction can be gained from work and job satisfaction is a key driver of employee morale, discipline, and employees' performance in supporting the realization of the company's goals (Malays, 2001). Job satisfaction is high or both will make employees more loyal to the company or organization.

Sense of satisfaction associated with work involving aspects such as wage or salary received, career development opportunities, relationships with other employees, job placement, job type, the structure rather than the company. In general, employees in a company will be able to work well and give the maximum in their contribution to the company if they have an interest and passion towards their work. Interest and passion that became an incentive for employees, so that they are able to produce good work productivity also for the company. In that needed a boost for employees in carrying out activities in a company and encouragement that's called motivation.

Motivation is the reason, impulse in man that causes people to do something or do something. There are many factors that can affect employees' motivation itself such as that the interest, wages, the need for security, inter-personal relationships and the opportunity to work even their own career development. Motivation itself can be a positive stimulus for employees to further drive the energy, thoughts, and their ability to realize what the goals of the company.

The more motivated to work, work with quiet resa, and more importantly, high job satisfaction will increase the likelihood of achieving productivity. When a person is motivated, he will try to do my best to realize what he wanted. Employees who are satisfied with the work that is obtained will be motivated to improve performance so that will have an impact on the growing success of the company. From the above description shows the relationship between motivation and working satisfaction against productive behavior of employees.

Besides, productive behavior person is determined also by the economic attitude (economic attitude). The economic attitude is a response or reaction that affects the choice of action according to the mind by considering the pros and cons in meeting a variety of needs faced by the means of satisfying the needs of the limited resource. The attitude on how one takes a decision in determining the economic choices that are considered suitable and appropriate to their abilities, while economic behavior is the actions and behavior of a human economy. Acting economical in meeting the needs, life-saving, utilization right time, how to work effectively, prioritize needs, perform economic actions, choices, take advantage of opportunities and be rational.

Several factors affect the behavior or construct productive work in an organization is the economic attitudes, motivation and job satisfaction. These factors are closely related in increasing the productive work behavior of employees, because the economic attitudeand supported by motivation and job satisfaction, it will be able to increase the productive work performance of employees.

Understanding things become a driving force of productive work behavior, the ability of the managers of the company in terms of creating the factors mentioned above, implies very strong against the emloyees. The changing of productive work behavior and increase the role of the human resources function is essential to support the organization's success.

Based on the background and observations Ikat centers of Bandar Kidul East Java Kediri encountered some issues which need to be investigated. The variables to be observed is the economic attitude (X), job satisfaction (Z) and productive behavior (Y). The conceptual framework of the study there in Figure 1. The conceptual framework describes the research compiled directly influence the attitude of economic variables (X) to job satisfaction (Z) and productive behavior (Y). Each variable has indicators that will be measured from therespondents through a questionnaire.

Based on the research conceptual framework formulated four research hypothesis as follows:

1. Economic Attitudes has a significant effect on employee job satisfaction on Ikat centers of Bandar Kidul East Java Kediri.
2. Economic attitude has a significant effect on employees' productive attitude at Ikat centers of Bandar Kidul East Java Kediri
3. Working satisfaction has a significant effect on employees' productive attitude at Ikat centers of Bandar Kidul East Java Kediri
4. Economic behavior has a significant effect on employees' productive attitude through employees' working satisfaction at Ikat centers of Bandar Kidul East Java Kediri

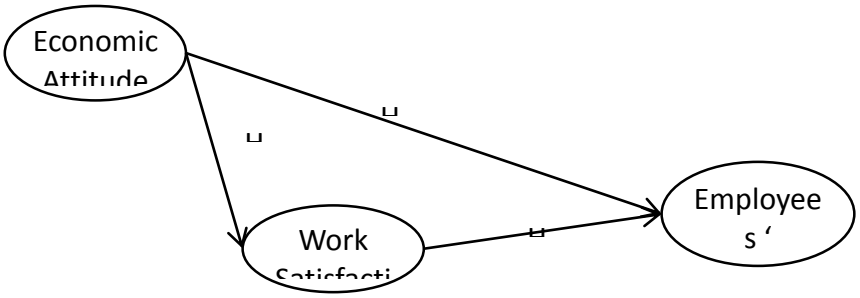

Figure 1 : Structural Model of this Research

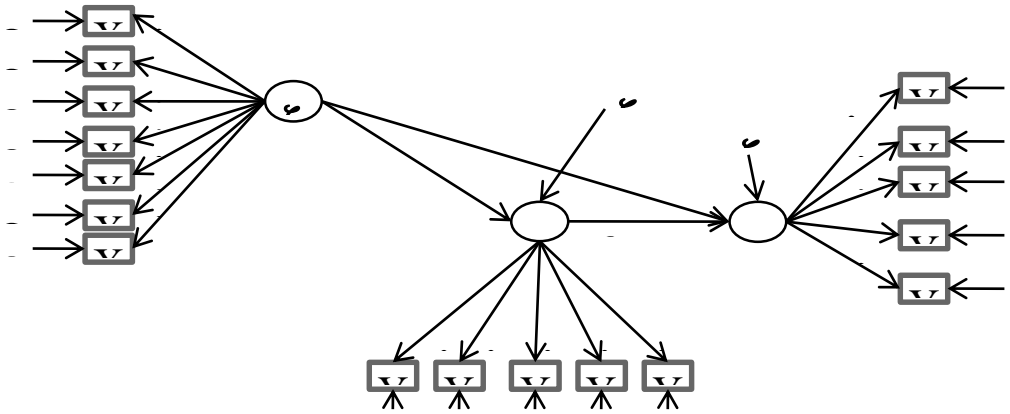

Figure 2 : Model Conceptualization of SEM Measurement by Using Lisrel

RESEARCH METHODS

Study Design

This research was conducted with a quantitative approach, which in measuring the research variables using survey methods and using statistical analysis techniques in data processing of measurement results.This is a survey research as well since this study took a sample of the population using questionnaires as a means of data collection. Generally, a unit of analysis in survey research is the individual (Singarimbun & Effendi, 1995). In this study, the unit of analysis is the employee in the home industry / artisan at Ikat Bandar Kidul. This is a survey study which is used for the purpose of explanation (explanatory or confirmatory), which explains the causal relationship between the variables through hypothesis testing (Singarimbun & Effendi, 1995).

The data collected is a cross sectional data obtained from the respondents in answering the items related to the variables of economic attitudes, job satisfaction of work, as well as the behavior of productive employees.

This study aimed to examine and analyze the effect: economic attitudes to job satisfaction, economic attitudes toward productive behavior, satisfaction with the productive behavior, attitudes towards behavioral productive economy through employee satisfaction in Bandar Ikat Ikat Sentra Kediri.

Population and Sample

The population in this study is all employees working at 10 artisans of Ikat Bandar Kidul consisting of 310 people, which are observed as respondents in this study. As employees they have economic attitudes and job satisfaction in the company.

Distribution of samples based on proportional calculation on the 10 (ten) artisans Ikat Bandar Kidul. Total sample used for employees at Ikat Bandar Kidul is = 150 samples, which were determined by simple random sampling technique.

Research Instruments

Instruments for each variable research developed from the indicator variables that development was based on the results of theoretical studies, frameworks and operational definitions are considered adequate according to the context of this research.

1) Economics economic attitudevariable consists of 14 items contained in the manifest seven and five alternative answers using a Likert scale.
2) Job satisfaction variable consists of 10 items of questions contained in the manifest 5 and five alternative answers by using a Likert scale.
3) Productive behavior variable consists of 10 items of questions contained in the manifest 5 and use alternate six answers of Likert scale.

Data Collection Techniques

The questionnaire in this study is used to collect data on economic attitudes, job satisfaction and employees' productive attitude. The use of questionnaire aims to obtain data from respondents as a research subject about the the variables to be measured such as: economic attitudes, working satisfaction and productive attitude of the employees. This questionnaire, containing questions by giving a score (value) of each answer is by using a Likert scale. Score (value) of the respondents' answers given by the five alternatives which are strongly agree (SS) with a score of 5, agree (SJ) with a score of 4, neutral (N) with a score of 3, disagree (TS) with a score of 2, and so disagree (STJ) with a score of 1. Thelevel of measurement used is ordinal, where the figures given implies the level. The spreaded questionnaire conducted with the respondents directly and coordinate with relevant agencies and the craftsman / entrepreneur ofIkat bandar. In this case, the research is conducted in November, 2016.

Analysis of Data

Data analysis techniques used in this research is Structural Equation Modelling (SEM). SEM Sofware used in this study is the Linear Structural Relationships (LISREL) version 8.80. yet, before the data is analysed by using structural equation modeling, it is necessary to test unidimensionalitas construct on each of the variables that has been researched. The analisis done by using confirmatory factor analysis.

THE RESULT OF THE DISCUSSION

The Conceptual Model Testing of the Research

The result of preliminary model as the conceptual model of the study is presented on the figure 1 below:

Figure 3 : The Research Conceptual Model (preliminary Model)

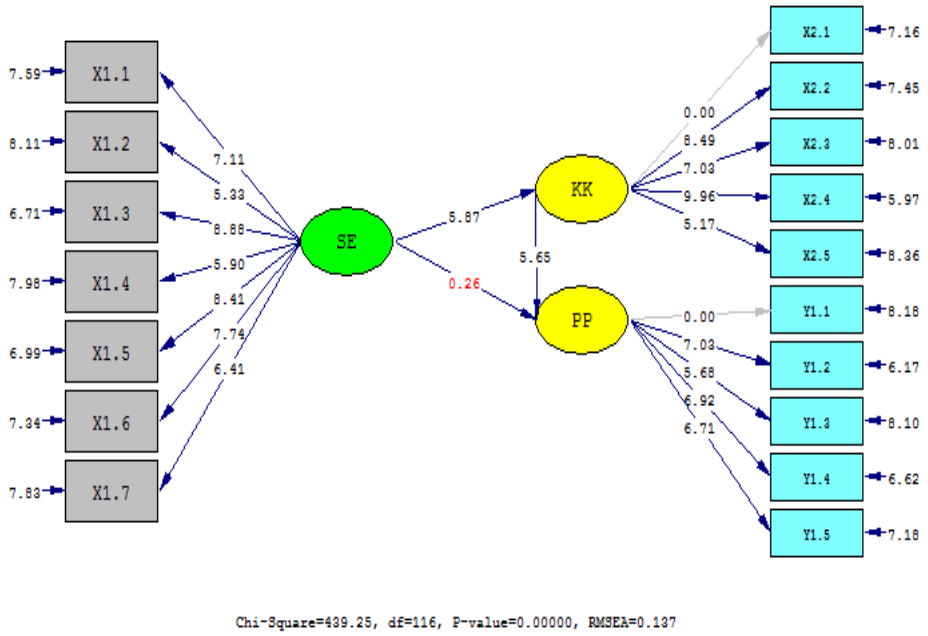

Table 1: The Scale of the Structural Research Model (Preliminary Model)

Model Scale	Coeficient	Criteria	Conclusion
Chi-square (χ^2)	439,25	Significant	Fulfilled
P-Volue	0,0	[3] 0,05	Not Fulfilled
Df	116	---	---
Cmin (χ^2/Df)	439,25 / 116	£ 2,00	Fulfilled
PMR (Standadised)	0,095	£ 0,08	Fulfilled
RMSEA	0,14	£ 0,08	Fulfilled
GFI	0,74	[3] 0,90	Marginal
AGFI	0,66	[3] 0,90	Marginal
CFI	0,82	[3] 0,94	Marginal
IFI	0,83	[3] 0,94	Marginal
NNFI	0,79	[3] 0,05	Marginal
AIC / Model	2612,30 / 513,25	insignificant / Relatives	Fulfilled

(Source: Lisrel Output of the Preliminary Research Model, 2016)

Table 1 above shows that there are many models alignment requirements that has not been met. Based on this, it can be stated that the initial model as filed and hypothesized and it is presented in the conceptual model empirical research has yet meet the requirements of the goodness of fit test model.

Test Results of Analysis Simulation Model

Out of the two rounds of simulation models measurements that were performed immediately have a goodness of fit with a coefficient of quantities that meet the criteria as a model of good empirical research findings.

Figure 1: Alternative Model

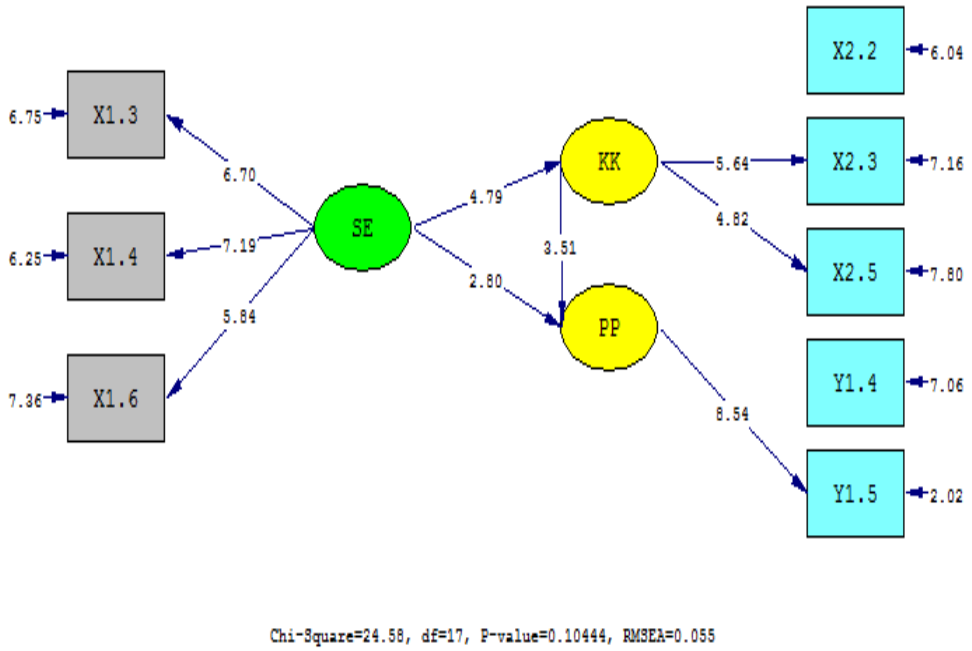

Table2 : The Comparison of Coeficient Scale from both Model

Scale Model	Preliminary Model	Alternative Model
Chi-square (χ^2)	439,25	24,58
P-Volue	0,0	0,10
Df	116	17
Cmin (χ^2/Df)	439,25 / 116	24,58 / 17
PMR (Standadised)	0,095	0,048
RMSEA	0,14	0,055
GFI	0,74	0,96
AGFI	0,66	0,92
CFI	0,82	0,98
IFI	0,83	0,98
NNFI	0,79	0,96
AIC / Model	2612,30 / 513,25	527,30 / 62,58

Source: Lisrel Output from Preliminary Model and AlternativeModel, 2016)

Based on the above model, it is proven to meet the goodness of fit requirements, and it is structural model empirically corresponding to occur as the research background. Thus, the hypothesis testing, discussion and conclusion will be based on this alternative model that proved to be the best model of the findings in this study.

Hypothesis Testing

Table 3: Hypothesis Testing

No	Hypothesis	Result	Conclusion
1.	Economicattitude has a positive effect on the employees' working satisfaction at Ikat Bandar Center Kediri.	Based on the analysis, result of LISREL is 8.80 on t-value ³ t table, in which4,79 ≥ 1,97 or 2 then H0 is rejected while H1 accepted.	Proven
2.	Economic attitude has a positive effect on the productive attitude at Ikat Bandar Center Kediri.	Based on the analysis, result of LISREL is 8.80 on t-value ³ t table, in which2,80 ≥ 1,97 or 2 then H0 is rejectedand H1 is accepted.	Proven
3.	Working satisfactionhas a positive effect on the productive attitude at Ikat Bandar Center Kediri.	Based on the analysis, result of LISREL is 8.80 on t-value ³ t tabel, in which3,51 ≥ 1,97 or 2 then H0 is rejectedand H1 is accepted.	Proven
4.	Economic attitude has a positive effect on the productive attitude through working satisfaction at Ikat Bandar Center Kediri.	Based on the analysis, result of LISREL is 8.80 on t-value ³ t table, in which4,15 ≥ 1,97 or 2 then H0 is rejectedand H1 is accepted.	Proven

Economic Attitude Has a Positive Impact on Job Satisfaction

Based on the results of research on employee of Ikat Ikat Bandar, it can be concluded that the hypothesis I is states that the economic attitude has an influence on working satisfaction for employees of Ikat Bandar received, it is shown from the coefficient on t-value of 4.79 compared with 1.97 the t table that is larger. These values indicate that the better the economics attitude of the employees, the better the employees' satisfaction will be. Conversely, if the economic attitudes of employees is low / not good, it will make the job satisfaction of employees is low.

Working satisfaction is an (positive) attitude labor to the job, which comes under situas assessment of the work can be performed on one work, the assessment is as respect in achieving one of the important values in the work.

This study shows that employees' perspective in attitude economical with indicators that life-saving someone, use ratio, perform economic actions, manufacture priorities, altruism, efficiency in the activity of consumptive and effectiveness in productive activities as reflective of the economic attitudecan affect the increase in job satisfaction which direflektifkan with salaries and bonuses, the job itself, co-workers, promotion and working conditions.

This research has an impact on the economic attitudes of employees at the center of Ikat Bandar Kediri District of Mojoroto to be more advanced in thought patterns to be more creative and innovative. Employees perform careful consideration in spending their revenue and employees tend to pay attention in spending money that is really helpful.

Economic Attitude has a Positive Effect on the Productive Economics Attitude

Based on the SEM results,the hypothesis testing which produces and answer that second hypothesis which stated that the economic attitude has a significant influence on productive behavior of the employees at Ikat Bandar received, it is shown from the coefficient on t-value 2,80 and compared with 1.97 t-table that is larger. The value indicates that the economic attitude by employees, it will be better the behavior of productive employees. Conversely, if the

economic attitudes of employees low / not good, it will make the productive behavior to be low. This study supports (Herawaty & Budiharto, 2010).

It is agreeable with Gilmore opinion, that the productive person illustrate the potential, perception and creativity of someone who always wants to donate the ability for the benefit of himself and his environment. Productive behavior is behavior that raised employees can bring positive results for the company. Thus, productive person is a person who contributed to a significant and meaningful to the surrounding environment, imaginative and innovative in responding to the problems of his life and has the skill (creative) in achieving the goal of his life.

Furthermore Referring to the opinion of Gilmore on productive behavior above, that individuals who behave will act constructively productive, imaginative, creative and can provide real and significant contribution in the achievement of the organization. In the words of a real and significant contribution contained the understanding that the resulting output is always greater individual (significant) than input, so that the organization with the support of individuals like this in it would be a productive organization because productivity is increasing.

Job Satisfaction Has a Positive Impact onEmployees' Productive Attitude

Based on the results of research on employee of Ikat Bandar concluded that hypothesis 3 which stated that job satisfaction has a significant influence on the employees' productive attitudeof Ikat Bandar received, it is shown from the coefficient on t-value3,51 and compared with 1.97 t-table that is greater. These values indicate that the work satisfaction received by employees, it will be better the productive behavior of the employee. Conversely, if an employee satisfaction is not good, it will make the productive behavior to be low. This study supports research Prasetyo, Edhi and Wahyuddin M. (2003), in which job satisfaction has a positive influence and significant impact on employees' productivity. This study supports the research (Widodo & Sami'an, 2013), (Prasetyo & Wahyuddin, 2003) and (Koesmono, 2006).

This fits the theory of job satisfaction as an attitude that describes how someone in his work as a whole as well as on various aspects of his job. This shows that job satisfaction is how much someone likes or does not like the job.

Economic Attitude Has a Positive Effect onProductive Attitude through Employee Satisfaction Working Satisfaction

Based on the results of research on employee ofIkat Bandar, it can be concluded that hypothesis 4 which states that the economic attitudehas a significant influence on the productive behavior through employee satisfaction received, it is shown from the coefficient on t-value4,15 and compared with t-table that is 1.97 and is greater. Value indicates that the economy intermediated by good attitude / supported with job satisfaction by employees, it will be better the behavior of productive employees. Conversely, if the economic attitude intermediated by job satisfaction received by employees lacking / not good, it will make employees' productive behavior is low.Thismeans also improving the productive behavior of employees will be successful if employees are good economic attitudes and high employee satisfaction, or can also means that if the owner of the company at the center of Ikat Bandar wants to improve the behavior of productive employees, it must first seek to shape the attitudes of the economy to employees and should also increase employee job satisfaction as well. This study supports research (Prasetyo & Wahyuddin, 2003), (Almigo, 2004) and (Prasetyo & Wahyuddin, 2003).

That level of employee satisfaction will influence the behavior of employees or to work, the employee tried to follow regular job, working hard, and intend to remain an employee of

the company within for long period.Working satisfaction can lead productive work behavior, employees who likes his job will work more productively, and employees will show their work well too. Companies with employees who have high job satisfaction is likely to be more effective and productive than employees who feel less satisfied with their jobs.

Understanding things become a driving force of productive work behavior, the ability of the managers of the company in terms of creating the factors mentioned above, implies very strongly towards productive work behavior of employees. Changes and the increased role of the human resources function is essential to support the organization's success.

CONCLUSIONS AND RECOMMENDATIONS

The results show there is positive effect of economic attitude on job satisfaction shown by the t-value of 4.79. It indicates that the economic attitudeowned by the employees affect the employees' job satisfaction. T-value of 2.80 is obtained when testing the effect of economic attitudes toward productive behavior, these results suggest that there are significant variables that is significant of economic attitudes towards job satisfaction variables, these results show that the attitude of the employee-owned economy improves it will also increase the workingsatisfaction. At the t-value of 3.51, it obtained from the analyst to examine the influence of working satisfaction on productive behavior, suggesting the hypothesis that job satisfaction significant effect on productive behavior, accepted. This means that improving the level of employee satisfaction, it will also increase the productive behavior by employees. Likewise for the t-value of 4.15 were obtained from analysis to test hypotheses about the effects of the economic attitudes toward productive behavior through job satisfaction, this shows the t-value is higher than t-table 1.97. That means improving the economic attitudes of employees, it will increase the productive behavior, only supported by an increase in employee satisfaction at Ikat Bandar Kediri. It is consistent with the findings of the targeted is a new construct of Causality Conduct Productive Employees, by a factor of economic attitudes the behavior of productive employees and an indirect effect through employees' satisfaction. Contributions are being fundamental which can be the development of science in the field of organizational behavior and has it priority for SME organization of Kediri, especially in decision-making and improved performance of employees.

As a result, the coaching done on SMEs is more oriented towards improving the quality of human resources that are competent in managing SMEs, increasing SMEs oriented skilled entrepreneur in empowering SMEs to be more creative, innovative, and labor-intensive. Increased professionalism of human resources to address the fundamental problem of SMEs with productive workingattitude measurement through working satisfaction and economic attitude as well as to build an economic attitude and the behavior of productive employees. Development activities to attract and encourage employees to behave more productively.

REFERENCES

Almigo, N. 2004. Hubungan antara kepuasan kerja dengan produktivitas kerja karyawan. *Jurnal Psyche, 1*(1), 51-59.

Assagaf, Y. 2012. *Pengaruh budaya kerja terhadap kinerja karyawan pada pt. Hadji kalla cabang alauddin makassar.*

Basri, M. 2015. Persfektif Sikap Berperilaku Moral Ekonomi Mahasiswa Fakultas Ekonomi Program Kependidikan UM. Prosiding Seminar Nasional Hasil Penelitian Pendidikan dan Pembelajaran STKIP PGRI Jombang, Jawa Timur, Indonesia, 25 - 26 April 2015 ISSN 2443-1923

Djati, S.P. 1999. Pengaruh Variabel-Variabel Motivasi Terhadap Produktivitas Tenaga Kerja Karyawan pada Industri Rumah Tangga di Kabupaten Sidoarjo. Jurnal Manajemen dan Kewirausahaan Vol. 1, No. 1, September 1999 : 22 – 35.

Djatmika, E.T. 2005. Pengaruh Faktor-Faktor Keorganisasian Terhadap Perilaku Positif Guru-Guru Ekonomi SMA di Kota Surabaya, Malang dan Jember. Disertasi. Malang: Program Pasca Sarjana Program Studi Pendidikan Ekonomi

Herawaty, E. & Budiharto, S. (2010). Hubungan antara kebermaknaan hidup dengan perilaku produktif pada guru slb. *PHRONESIS, 10*(1).

Koesmono, H.T. 2006. Pengaruh budaya organisasi terhadap motivasi dan kepuasan kerja serta kinerja karyawan pada sub sektor industri pengolahan kayu skala menengah di jawa timur. *Jurnal Manajemen dan Kewirausahaan (Journal of Management and Entrepreneurship), 7*(2), pp. 171-188.

Malayu, H. 2001. Manajemen sumber daya manusia. *Bina Aksara, Jakarta*.

Muaddab, H. 2015. Faktor Yang Berpengaruh Terhadap Perilaku Konsumsi Hijau Pada Siswa SMK Negeri Se Kabupaten Jombang, Edusentris, Jurnal Ilmu Pendidikan dan Pengajaran, Vol. 2 No. 2, Juli 2015

Prasetyo, E. & Wahyuddin, M. 2003. Pengaruh kepuasan dan motivasi kerja terhadap produktivitas kerja karyawan riyadi palace hotel di surakarta. *Retrieved April, 2*, 2016.

Robbins, S.P. & Judge, T.A. 2015.Organizational Behavior.16th Edition.Terjemahan. Perilaku Organisasi. Alih Bahasa. Ratna Saraswati dan Febriella Sirait. Jakarta: Salemba Empat.

Sedarmayanti. 2009. Sumber Daya Manusia dan Produktivitas Kerja. Cet. Ke 3. Bandung : Mandar Maju.

Siagian, S.P. 2014. Manajemen sumber daya manusia.

Singarimbun, M., & Effendi, S. 1995. Metode penelitian survei edisi kedua. *Jakarta: LP3ES*.

Suhariadi, F. 2002. Pengaruh inteligensi dan motivasi terhadap semangat penyempurnaan dalam membentuk perilaku produktif efisien. *Anima: Indonesia Psikologi Jurnal, 17*(4), 346.

Suhariadi, F. 2007. Paradigma pengelolaan manusia di dalam organisasi: Bidang ilmu manajemen sumber daya manusia.

Sumarti. 2012. Pengaruh Motivasi dan Kompensasi Terhadap Perilaku Produktif Karyawan Pada PT Kerata Api (Survey Terhadap Karyawan Pada kantor Pusat PT Kereta Api Bandung). Industrial Research Workshop and National Seminar 2012.ISBN 978-979-3541-25-9.

Timpe, A.D. 1987. The Art and Science of Business Management (Creativity). Terjemahan. Seri Manajemen Sumber Daya manusia (Kreativitas) . Alih Bahasa. Sofyan Cikmat. 2000. Jakarta: Elex Media Komputindo. Kelompok PT Gramedia.

Timpe, A.D. 1988. The Art and Science of Business Management (Performance). Terjemahan. Seri Manajemen Sumber Daya manusia (Kinerja) . Alih Bahasa. Sofyan Cikmat. 2000. Jakarta: Elex Media Komputindo. Kelompok PT Gramedia.

Timpe, A.D. 1989. The Art and Science of Business Management (Productivity). Terjemahan. Seri Manajemen Sumber Daya manusia (Produktivitas) . Alih Bahasa. Dimas Samudra Rum. 2000. Jakarta: Elex Media Komputindo. Kelompok PT Gramedia.

Wahyono, H. 2001. Pengaruh Perilaku Ekonomi Kepala Keluarga Terhadap Intensitas Pendidikan Ekonomi di Lingkungan Keluarga. Disertasi tidak diterbitkan. Malang: PPs-UM.

Widodo, F.A.S. & Sami'an, M. 2013. Hubungan employee engagement dengan perilaku produktif karyawan. *Jurnal Psikologi Industri dan Organisasi, 2*(1).

Zurnali, C. 2011. Pengaruh pelatihan dan motivasi terhadap perilaku produktif karyawan di divisi long distance pt telkom, tbk. Indonesia. *Ekonomi dan Bisnis Oikos Nomo, Volume 4.No. 1.Januari 2011*.

The Effect of Inquiry Learning Strategy versus Expository and Achievement Motivation ON THE Students' Outcomes in Reading Fiction of Critical Literacy Approach

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Abstract: the aims of this research are to know (1) the difference of students' outcomes in reading fiction of critical literacy approach between the students taught by inquiry learning strategy and expository learning strategy; (2) the difference of students' outcomes in reading fiction of critical literacy approach between the students who have high achievement motivation and low achievement motivation; and (3) the interaction between the learning strategy and achievement motivation and the students 'outcomes in reading fiction of critical literacy approach. The type of this research is factorial approach experiment 2 x 2. The subjects of this research are the students of education of language and Indonesian literary study program, Teachers Training Faculty UNDANA Kupang, consisting of two parallel classes, namely 32 students of experiment group (inquiry) and 31 students of control group (expository) with moderator variable achievement motivation (high and low). The data of research result is processed by ANOVA statistical analysis. The result of research indicates that (1) the use of inquiry learning strategy is more excellent (mean 76,35) comparing to expository learning strategy (mean 71,38) to the students' outcomes in reading fiction of critical literacy approach; (2) there is a difference of significant students 'outcomes between the students with high achievement motivation (mean 76,82) and the students with low achievement motivation (mean 70,53); and (3) there is no significant interaction between the learning strategy and achievement motivation on the students' outcomes in reading fiction of critical literacy approach.

Keywords: Inquiry learning strategy, expository learning strategy, achievement motivation, fiction reading, critical literacy approach.

The quality of teaching influences on the education. This means that the process of teaching is designed, developed, and undertaken well and appropriately will dominantly contribute to the students; the potency of the students can be developed or powered. The design and application of the models of innovative instruction can create the process of quality instruction.

The innovative models and strategies which developed can create the quality of instruction as well as answer the challenge of era. The demand of learning in the 21th century

Covers are high understanding competency, critical thinking competency, collaborated competency and communication and creative thinking competency (Morocco, 2008). The development of instruction with the orientation on the achievement of the above competencies actually covers various fields of knowledge.

Inquiry is an innovative instruction strategy to answer this need. Inquiry strategy is an implementation of constructive approach. Inquiry instruction strategy directly involve the

students to think critically to analyze, to ask questions, to explore, and to do the experiment in order to be able to discover and to present the logic and scientific solution or idea. Inquiry strategy implants the ability of critical, analytical and creative thinking towards the problem solving, collaborative and interactive learning and also meaningful learning. Inquiry strategy focuses on the critical thinking ability. (Kuhlthau, Maniotes, dan Caspari, 2007; Joice, Weil, & Calhoun, 2009; Arends, 2010; Sanjaya 2012).

The literary instruction of critical literacy was approaching (to read critical fiction text) which is related to critical thinking and critical awareness. Critical thinking, by Johnson and Freedman (2005; Priyatni, 2010) explained as "logical thinking ability" by "asking, analyzing, comparing, constricting and evaluating." While "critical awareness is the ability to identify the condition that produces excellent ideas more than the others in a certain culture or society". From this point of view Priyatni (2010) concludes that by thinking critically someone is able to think divergently, to develop the ability to solve the problems and the skill to think through the questions relating to the cause and effect relation, perspectives, evidences, possibilities, and debates."

The interpretation of literature text in the domain of fiction reading of critical literacy approach not only understanding literature text as the code of words. In the text contains certain ideology and interests which is voiced intensively by the writer (Priyatni, 2010). Through the literature elements, the writer voices specific ideas and dominant message. Therefore critical attitude is needed in comprehending the literature text.

In order to develop and empower the critical thinking ability as signed in fiction reading of critical literacy approach, is needed critical approach as well as strategy, model, and method which orientate on critical approach in the instruction. Inquiry is one of the alternative strategies which can be developed. Inquiry strategy involves the components of critical thinking which is demanded in the critical reading of fiction text.

The empirical study on the literature instruction so far designates that the condition of literature instruction is still concerning. The literature instruction does not direct the students to develop their thinking intelligence. The students are less encouraged to have critical, logic, and systematic thinking. Many of the students have good academic ability, but have less development of their intellectual ability (their critical thinking ability). Academically they have adequate theoretical knowledge about various elements of literature. After reading literature text (short story for example), they are able to show their good ability about the text, namely they are able to retell the contents of the text, to elaborate the characters in the text, the plot and also other elements that develop the text. However the ability to comprehend the text does not yet reach the domain of critical thinking "fiction reading of critical literacy approach."

The weakness of literature instruction is caused by several factors. Several observers mention that one of the causing factors is the literature instruction is still in traditional way. The teachers tend to employ the conventional strategies. Expository is one of the strategies that is still occasionally used (Wahyudi, 2007). The same opinion is still used by Sudaryono (2000); Sayuti (2000); Endraswara (2003); Abidin (2014).

Theoritically, expository strategy is different significantly from inquiry strategy. Expository strategy is not more excellent than inquiry strategy. Expository stresses on the ability to convey the verbal information. The students are demanded to obtain the information or knowledge. The students are less trained, guided, or directed to sharpen their critical thinking ability (Heinick, 1992, Arrends, 2010); and Eggen and Kauchak, 2012). The critical thinking ability however can be indeed developed through expository strategy if several factors in the instruction, such as high level of instruction, the quality examples and motivation.

Based on the above realities, these two strategies are developed, compared, and combined with achievement motivation in this research. The aims of this research are to know (1) the

difference of the study result in reading fiction of critical literacy approach between the students taught by inquiry teaching strategy and expository teaching strategy; (2) the difference of study result in reading fiction of critical literacy approach between the students who have high achievement motivation and low achievement motivation; and (3) interaction between teaching strategy and achievement motivation and the study result in reading fiction of critical literacy approach.

THE RESEARCH METHOD

The type of this research is the experiment with nonequivalent control group factorial design 2 x 2. The subjects of this research consist of two parallel classes as many as 63 students of Study Program of Indonesian Language and Literature Education, the Faculty of Teachers Training and Educational Sciences of the University of Nusa Cendana Kupang, (2015 – 2016) who take the subject the study and appreciation of fiction. The subjects of this research are all taken (intact group) consisting of 32 university students from experiment group (inquiry) and 31 university students from control group (expository).

The instrument which is used in this research is achievement motivation instrument and the result study instrument of fiction reading of critical literacy approach

The research result data is computed by using descriptive statistical analysis and ANOVA (Analysis of Variance) with the help of SSPS-22.

THE RESULT AND DISCUSSION

The result of research data analysis is made up of the result of pretest data analysis employed the t test analysis and post test data analysis employed ANOVA statistical analysis.

Pretest data analysis is done in order to know the initial ability of research subjects. Meanwhile post test data analysis is done in order to know the learning result of research subjects after given the strategy of instruction.

The result of the pretest data analysis indicates that the mean of the group learning result is 39.03 and Sd 6.965. Significant value of Normality Test by the test of kolmogorov-smirnov inquiry instruction is 0.138 and expository instruction is 0.200. Significant value of the two groups is > 0.05. Then significant value of homogeneity test with levene test with the basis mean is 0.847 > 0.05. The significant value t test of the two independent samples of the two groups is 0.847 ($p > 0.05$). From the result test of normality and homogeneity, it can be said that the pretest data of the two groups distribute normal and homogenies. From the result of t test it can be stated that the two groups have the same initial ability.

The next analysis is data analysis of the posttest to test hypothesis. The result of post test data indicates that mean of inquiry group is 78.63 (with high achievement motivation) and 73.93 (low achievement motivation); mean of expository group is 76,82 (high achievement motivation) and 67.13 (low achievement motivation). The result of normality with Kolmogorov Smirnov test indicates that Significant value (Sig) inquiry group, expository and high and low achievement motivation is 0.200 > 0.05. The result of homogeneity test with Levine' test is 0.840 > 0.05. From this test it can be concluded that normal distribution data and population have identic variant or indifference so it fulfills the ANOVA assumption.

Therefore normal distribution data and variant fulfill the ANOVA assumption, hypothesis test can be done. The result of hypothesis test can be seen in the following table.

Tests of Between-Subjects Effects							
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power[b]
Corrected Model	1068.898[a]	3	356.299	7.263	.000	21.790	.977
Intercept	341292.713	1	341292.713	6957.501	.000	6957.501	1.000
Instructional Strategy	417.195	1	417.195	8.505	.005	8.505	.818
Achievement Motivation	630.969	1	630.969	12.863	.001	12.863	.942
Instructional Strategy *Achievement Motivation	42.573	1	42.573	.868	.355	.868	.150
Error	2894.181	59	49.054				
Total	347325.000	63					
Corrected Total	3963.079	62					

The Effect of Instructional Strategy on the Learning Result of Fiction Reading of Critical Literacy Approach

The result of ANOVA statistical analysis indicates that the ratio of F count is 8.505 and significant value is 0.005 < 0.05. It is therefore can be concluded that inquiry instructional strategy has a significant effect on the learning result of fiction reading of critical literacy approach. Meanwhile if it is seen from mean **of** the learning result of fiction reading of critical literacy approach, average score (mean) of the group of students from inquiry strategy is 76.35 higher than average score (mean) of the group of students from expository group is 71.38. This result indicates that the effect of using inquiry strategy is better than expository strategy on the learning result of fiction reading of critical literacy approach.

A significant difference of the above statistical analysis result supported also by the research result of direct (observation) of the real condition of the instructional implementation in the class room. From the observation result shows that the condition of inquiry instruction is different from the expository instructional condition. The inquiry instruction has more positive effect than expository instruction. Inquiry instruction makes the students more motivating, challenging and interested either individually or in groups. The students are more enthusiasm in discussing and solving the problems. Inquiry instructional more enable the students to learn based on the problems, learn by themselves, and learn more meaningful and learn to think high degree and integrative. The instruction is seen very communicative, interactive, and dialogue. The students not only develop the critical and creative thinking but also develop the attitude of mutual understanding and self-confidence.

Inquiry instructional strategy which is based on the problem can develop the intellectual ability namely systematic, logic and critical thinking. It is helpful for the students to develop their intellectual discipline and thinking skill. The students not only master the information, fact, or what they have learned but also how to use their potency and develop the optimum thinking skill. These abilities are parts of the mental process.

The superiorities of the application of inquiry instructional strategy of the above research result findings are the same as the findings or the conclusions of the previous research result. Since the beginning when it was designed and tried out, several researches indicated that the

application of inquiry strategy gave the positive effect in the instruction. Joice & Weil (1980) in the research application of social inquiry strategy which was done in the second grade of social science in Los Angeles in USA concluded that the application of inquiry strategy significantly increased the learning result and the ability to solve the students' problems. The further conclusion of research result Beyer (1995), O' Keefe (2004), Sujarwo (2011), Winarto (2012), and other researches concludes that the application of inquiry strategy proves to give better effect (positive) than expository strategy.

Inquiry instructional strategy is one of the main components of contextual instructional characteristic. Therefore, the result of contextual instructional application with the inquiry component also support and strengthen the findings inquiry instructional application in this research. The research result Franz, Hooper, & Kristonis (2007) proves that the contextual instruction can increase the skill to solve the problems and critical thinking based on the situation in the real world. Raharso in his research concludes that the application of contextual learning gives more optimum result than conventional instructional model. The same conclusion also said by Satriani, Emiliana & Gunawan (2012) the application of contextual strategy together with achievement motivation give more significant effect than conventional approach.

This research result is also supported and strengthened by related theories of instruction mainly theory of instruction with cognitive ideology especially constructivism. Indication of active, self, meaningful, and confidential learning which is found in the application of inquiry instructional strategy, in line with indication of meaningful learning which identified by Flewelling and Higginson (2003) which is based on the meaningful learning theory of Ausubel? Learning is a process of meaningful assimilation for students. The learnt materials are assimilated and connected with the knowledge which have possessed by the students in the form of cognitive structure. Ausubel, Novak, and Hanesian (1978; Suparno, 1997) explain that meaningful learning is a process of learning which connects with the new information with the thinking structure that has possessed by someone who is learning. The meaningful learning occurs when the students try to connect with the new phenomenon to their structure of knowledge. This happens by learning the concept and the change of available concept which will result in the growth and the change of concept structure which has possessed by the students.

The above research result is also in line with the social theory of Vygotsky (1978; Slavin, 2009; Schunk, 2012) which focuses on the social aspect in the instruction. The characteristic of the concept of Vygostky is known by zona of proximal development and scaffolding. Vygostky explains that the process of instruction will occur if the students do or accomplish the tasks that they have not learnt, but they are still in their reach as zona of proximal development, that is the zone of development degree is a little bit above the zone of someone's current development. Zona of proximal development is the distance between the development degree of actual zone which is determined by the problem solving that can be accomplished individually, with the potential development degree which is determined by a problem solving with the guidance of adults or collaborated with the friends of the same age. Vygotsky convinces that the function of higher mentality will emerge in the conversation and cooperation between an individual before the function of mentality absorbs into an individual. Vygotsky also convinces that the students follow the examples which are given by adults and gradually develop their skills to do certain tasks without helping or guidance of other people. The process of giving helping from adults or friends of the same age who are more competent that makes the students move from the actual zone to potential zone which is called scaffolding (Slavin, 2009; Schunk, 2012; Suyono and Haryanto, 2014), that is giving the help during the initial stages of development

and decrease the help as well as give the opportunity to take over the bigger responsibility after they are able to work out (Slavin, 2009).

The superiorities of the application of the inquiry strategy were expressed in this research strengthened by constructivism opinion. For constructivists, learning activity is an active activity of the students to develop and to search themselves the meaning of knowledge that they learn. Learning is the process to adapt the new concept and ideas with the thinking framework that have existed in their mind (Shymansky, 1992; Suparno, 1997). The students are responsible by themselves for their learning result, taking the old thought into the new learning situation, and thinking of what they have learnt by seeking the meaning, comparing of what they have known and accomplishing the tension between what they have known and what are needed in the new experiences (Suparno, 1997).

The view of constructivism learning is an organic process to discover something, not the mechanic process to collect the fact. Learning is a thinking development by making a framework of different understanding. The students should obtain the experience to formulate and examine hypothesis, to manipulate object, to solve the problems, to seek the answer, to describe, to examine, to dialogue, to make reflection, to ask question, to express ideas, and so to form a new construction. The students should construct the knowledge by themselves. The teachers help them in this process. The meaningful learning occurs by reflection, meaningful conflict solving, and in the process they always improve the incomplete thinking (Fasnot, 1989; Suparno 1997).

The view of constructivism also effects on the group study. Shymansky (1992; in Suparno, 1997) explains that the study group can be developed because the knowledge is individually and socially formed. In the group study the students should convey how they view and act the problem and what will be done with this problem. This is one way to make a reflection which demands the awareness of what is thought and done. Then the students are given the chance to make abstract actively. The effort to explain something to friends is useful for them to view something clearly or even to see the inconsistence of their own views (Suparno, 1997; Slavin 2009).

Theoretically from certain perspective, inquiry and expository strategies can surpass each other. Each strategy shows its special quality more than the others. If the expected competence is the domain of cognitive ability of critical thinking or high degree thinking, inquiry strategy will be more superior to expository strategy. Cognitive domain is more appropriate to be taught by inquiry learning strategy. On the contrary, the expected competency exists in the low degree of cognitive domain, it is more appropriate to use expository learning strategy. From the aspect of achievement motivation, if the students have high achievement motivation, it is advisable to use inquiry learning strategy. On the contrary, if the students have low achievement motivation, expository learning strategy is used. Eggen and Kauchak (2012) explains that for the students who have low motivation and have the difficulty in learning, it will be more appropriate to use direct learning strategy (expository). This research result shows the significant difference in line with this theory.

The Effect of Achievement Motivation on the Learning Result of Reading Fiction of Critical Literacy Approach

Analysis result of ANOVA hypothesis test per variable indicates that ratio of F figure is 12.083 and significant value is 0.001 < 0.05. Therefore it can be said that achievement motivation has a significant effect on the learning result of reading fiction of critical literacy approach. From mean of reading fiction of critical literacy approach, it is known that mean of the group of students who have high achievement motivation is 76.82 higher than mean of

group of students who have low achievement motivation 70.53. It can therefore be said that high achievement motivation has a better effect on reading fiction of critical literacy approach than low achievement motivation.

Achievement motivation and instruction (the activity of the students in the teaching and learning) has a very high correlation. Achievement motivation is an important role factor and effect on the learning result as the ending realizing of the instructional process. Achievement motivation as an encouragement where the learning process happens that can increase the quality of teaching and learning. Achievement motivation becomes a stimulus to encourage the students to strive the success or to avoid the failure. In the context of teaching and learning, achievement motivation encourages the students to select the choice in the realistic action that can judge the ability on the tasks that are done.

Achievement motivation has two forms namely high achievement motivation and low achievement motivation. The difference of achievement motivation possessed by the students has an effect on the attitude and learning achievement. The students who have high achievement motivation will differentiate themselves from others and encourage themselves to do something better than others who do not have achievement motivation. The students who have high achievement motivation will feel challenged to face the big problems in the teaching and learning. The students will motivate and guide themselves to be responsible for the tasks given and to do seriously to gain the target. On the contrary, the students who have achievement motivation tend to be slow and unwilling to do the tasks. The students who have low achievement motivation are discouraging easily and are not able to face big problems in the instruction. This condition of course can effect on the learning result and the quality of teaching and learning. The gaining results of the students who have high motivation are more superior than the students who have low motivation either individually or in group.

The findings in this research are the same or strengthened by the previous research. Fatchurrochman (2011), from his research result concludes that achievement motivation has a positive effect in supporting the preparation of learning, supporting the success of work practice and the advance of the students' learning. The positive contribution becomes in reality through the seriousness of students in preparing the teaching and learning. Rahmat (2012) concludes that the students who have high achievement motivation gain better study result than the students who have low achievement motivation. In line with this (whatever research conducted in different field of knowledge (Gupta, Devi, & Parsija (2012), Rahayu (2010), Onete, Odet, Udey, & Ogbor (2012) conclude exactly the same that achievement motivation has an important role or has more positive effect than the students who have low achievement motivation.

Achievement motivation not only significantly has an effect on the academic learning achievement of the students but also has a high correlation and an effect on the attitude and behaviour of the students. The research result indicates that high achievement motivation has a positive effect and it is better than low achievement motivation. The findings of this research are in line with the findings of the previous researches. Tella (2007) and Knowles & Kerkman (2007), Gupta, Devi, & Pasrija, (2012) conclude that there is a significant inclination of the students who have high achievement motivation to strive to gain his willingness than the students who have low achievement motivation. The students who have high achievement motivation try hard to solve the cases that they face; the students have strong encouragement and challenge to solve the heavy problems in the teaching and learning or the tasks they do. The achievement motivation encourages the students to strive to gain the success and to avoid the failure; or even there is a willingness to maintain and to increase the success that they have achieved. The students who have high achievement motivation incline to put their hope on the high success, especially to face the task with the medium degree of risks or difficulties. On the contrary, the students who have low achievement motivation feel worried and avoid the tasks

with medium degree of tasks. The students in this group tend to choose the tasks with the easy degree of difficulty because with the hope they can achieve the success easily; or on the contrary they choose the tasks with high degree of difficulty to avoid the anxiety or fear of failure.

The specialty and the weakness of the effect of achievement motivation on the learning achievement reading fiction of critical literacy approach of this research result is supported by the theories of achievement motivation. Schunk (2012) explains that achievement motivation has an effect on teaching and learning. If the task is considered too difficult, the students will not make an effort or will stop because they are afraid of the failure and the low hope of success. To lower down the failure and to lighten the hope on the success strengthens the motivation. Atkinson (1982) explains that someone who has high achievement motivation will tend to get success and has the goal orientation, activity orientation of success or failure. Atkinson argues that the attitude of achievement bringing forward conflict tends to have "hope of success" and avoids or afraid of failure. The students who have high achievement motivation will choose the quite difficult tasks (medium), but convinced to be finished and will result in achievement taste. The students in this group avoid the difficult tasks because they are afraid of facing the difficulties in reaching the goal or the easy tasks only give the small satisfaction. On the contrary, the students who have low achievement motivation tend to choose the easy and difficult tasks because of frightening the failure; they like the low tasks. The students with low motivation tend to be pessimistic, orienting on the past, pretending the success as a fortune, avoiding the failure, loving the old ways, unlike the tasks that demand the responsibility.

The superiorities of achievement motivation among others working hard to get the success, doing the tasks well, taking the risk bravely, orienting on the future and so on, are the encouragement to achieve the intrinsic satisfaction. Someone who has high achievement motivation achieve the internal encouragement to get satisfaction, not because of the respect out of him (Santrock, 2008). Degeng (2005) says that the key factor that motivates the students who have high achievement is the intrinsic satisfaction and the success itself, not on the intrinsic respect (for example a gift). The students who have high achievement motivation will work hard in order to be successful; regardless they will or will not get the gift as the reward.

The Effect of Interaction of Teaching and Learning Strategy and Achievement motivation on the Learning Result of Reading Fiction of Critical Literacy Approach

From the analysis result of ANOVA hypothesis test can be seen that the ratio F is 0.868 and the significant figure is 0.355 > 0.05. It therefore can be concluded that there is no interaction between learning strategy and achievement motivation on the learning result of reading fiction of critical literacy approach.

This condition can be supported by graphic of pattern of learning strategy and achievement motivation "Estimated Marginal Means of Learning Result. From the graphic of pattern of this interaction shows that (1) the application of inquiry instructional strategy can increase the learning result of critical reading of fiction text more excellent than expository instructional strategy, either the students who have high achievement motivation or low motivation, (2) the group of students who has high achievement motivation shows the mean of learning result more excellent than the students who have low achievement motivation, (3) the application of inquiry instructional strategy can increase the learning result of reading fiction of critical literacy approach does not depend on the high or low of students' achievement motivation. In order to get the clear picture we can see the following graphic of interaction pattern.

Interaction is the cooperation or both sides effect of the two free variables on the bounded variable. Both sides effect of free variable depends on the condition of other free variable. Kerlinger & Lee (2003) explains that the interaction is the joint effect of the two free variables or more on the bounded variable. The interaction can also not happen if the two free variables or more bring separated significant effect. The separated effect of free variable is called the main effect.

From this research result can be seen that free variable instructional strategy and moderator strategy achievement motivation has more separated significant effect on bounded variable learning result of reading fiction of critical literacy approach. Each of the free variables has a significant main effect. The free variable and the moderator variable give the same strong effect. This finding is in line with the explanation of Hair, Anderson, Tathan, & Black (1995), in theoretical concept that interaction is joint effect of two treatments and this effect must be tested first. The interaction does not happen, theoretically it is caused by two free variables or more brings very strong significant separated effect on bounded variable. The effect of this separated free variable is called the main effect. In the factorial design independent effect stands alone this means that the effect of one treatment is the same strong as the other treatment.

The finding in this research indicates that the instructional strategy brings the significant main effect on the learning result of critical reading of fiction text. The gaining of the learning result of reading fiction of critical literacy approach of the group of students given the treatment of inquiry instructional strategy seems more excellent than the group of students given the treatment of expository instruction. From this fact, it means that separated free variable brings the main effect on the learning result of reading fiction of critical literacy approach. This research result is in line with the previous research. From the analysis of the previous research can be concluded that high achievement motivation brings a significant effect on the learning result of the students comparing to low achievement motivation. Rahayu (2010) concludes that achievement motivation has a significant relation on the productive instruction. The same as Sujarwo (2011), Winarto (2012), Onete, Edet, Udey, & Ogbor (2012), Rahmat (2012) concludes that achievement motivation brings positive effect on the study result and learning achievement of the students.

From the research result it is known that there is no interaction between the learning strategy and achievement motivation on the learning result of reading fiction of critical literacy approach. This is caused by the strong effect of each free variable and moderator variable on the bounded variable. Each of the free variable and moderator variable bring separated and significant effect. The free variable only brings the main effect on the learning result. This is in line with the theoretical concept explained by Hair, Anderson, Tatham, & Black (1995) that there is no interaction caused by the two free variables or more brings the significant separated effect on the bounded variable.

CLOSING

Based on the explanation of the research result and the above discussion, several conclusions of hypothesis test can be made as follows: (1) there is a difference of learning result of reading fiction of critical literacy approach between the students who are taught by using inquiry instructional strategy and expository instructional strategy, (2) There is a difference of learning result of reading fiction of critical literacy approach between the students who have high achievement motivation and the students who have low achievement motivation. High Achievement motivation has an effect on reaching the learning result of reading fiction of critical literacy approach which is different from the low achievement motivation. (3) There is no interaction between the different learning strategy and different achievement motivation on the learning result of critical reading of fiction text. The affectivity of instructional strategy does not depend on high- low of achievement motivation of students in reaching learning result of reading fiction of critical literacy approach.

REFERENCES

Abidin, Y. 2014. *Desain Sistem Pembelajaran dalam Konteks Kurikulum 2013*. Bandung: PT Rafika Aditama.

Arends, R.I. 2010. *Teaching for Student Learning (Becoming an Acompablish Teacher)*. New York, Routledge.

Atkinson, J. 1982. *Motivation and Achievement*. Washinton DC: V. H. Winston and Sons.

Ausubel, D. P., Novak, J. D. & Hanesian, H. 1978. *Educational Psychology: A Cognitive View (2nd ed.)* New York: Werbel and Peck.

Aydin, F., & Coskun, 2011. Secondary School Students Achievement Motivation toward Geography Lessons. *Journal Archieves of Applied Science Research* 3 (2): 121-134.

Baser, M.. 2006. Promoting Conseptual Change Through Active Learnig Using Open Source Software for Physics Simulation. New South Wales: *Journal of Educational Technology*. 22 (3): 336-354.

Beyer, K. 1995. Teaching Critical Thinking: A Direct Approach. *Social Education*, 297-303.

Bruce & Bruce. 1992. *Theaching With Inquiry*. Maryland: Alpha Publishin Company, inc.

Coffman, T., 2009. *Engaging Students Through Inquiry-Oriented Learning and Technology*.New York: Rowman & Littlefield Education.

Eggen, P. & D. Kauckak. 2012. *Strategi dan Model Pembelajaran (Mengajarkan Model dan Keterampilan Berpikir*. (Terjemahan Satrio Wahono. Jakarta: PT Indeks

Fatchurrochman, R. 2011. "Pengaruh Motivasi Berprestasi terhadap Kesiapan Belajar, Pelaksanaan Prakeria dan Pencapaian Konsepsi Mata Pelajaran Produktif, *Jurnal INVOTEC*, volume VII, No. 2 Agustus 2011.

Flewelling,Garry & William Higginson, 2003. *Teaching with Rich Learning Task*. Adelaide: The Australian Association of Mathematics Teacher Inc.

Franz, D. P., Hooper, P. F.. & Kritsonis. W. A. 2007. National Impact: Creating Teacher Leaders Through the Use of problem Based Learning. *National Forum of Applied Educational Research Journal*. 20 (3) : 1-9).

Fosnot, C. 1996. Constructivism : A Psychological Theory of Learning In (Fosnot (Ed). *Constructivism: Theory, Perspectives, and Practice*. New York: Teacher College.

Gupta, M., Devi, M., & Pasrija P. 2012. Achievement Motivation: a Major factor In Determining Academic Achievement. *Asian Journal of Multidimensional Research*, Vol. 1 Issue 3, August 2012.

Hair, J. V., Anderson, R. E., Tatham, R. L. & Black W. C. 1995. *Multivariate Data Analysis With Reading*. Fourth Edition. New Jersey. : Prentice Hall., Inc.

Hayon, G. Nico. 2016. *Pengaruh Strategi Pembelajaran Inkuiri vs Ekspositori dan Motivasi Berprestasi terhadap Hasil Belajar Membaca Kritis Teks Fiksi*. Disertasi tidak diterbikan Universitas Negeri Malang.

Heinic, R. M. & Russell , I. D. 1992. *Instructional Media and Technologies for Learning*. New York: John Wiley &Son.

Joice, B. , M. Weil, & E. Calhoun. 2009. *Models of Teaching Ed 8th*. NewJersey: Pearson Education, Inc.

Jonson, H. & L. Freedman. 2005. *Developing Critical Awareness at The Midle Level. Using Text as Tools for Criticque and Pleasure*. USA: Internasional Reading Association.

Knowles, E. & Kerkman, D. 2007. An Investigation of Studies Attitude and Achievement Motivation toward Online *Learning.Student Motivation* 2,70-80.

Kulthau, C.C., L.K. Maniotes, dan A. K. Caspari. 2007. *Guided Inquiry: Learning in The 21st Century*. London: Libaries Unlimeted.

Morocco, C. C. 2008. Supported Literacy for *Adolecents: Transforming Teaching and Content Learning for The Twenty-First Century*. San Fransisco: Jossey-Bass A Wiley Imprint.

O'Keefe, R. 2004. Criteria for Inquiry Activities that Are Effective for Teaching and Learning Science Concept. *Jornal College Science Teacher*.

Onete, O.U. , Edet, P. B., Udey, F. U. & Ogbor, B. P.. 2012. Academic Preformance: a Function of Achievement Motivation among Educational Students of Cross River University of Technology, Calabar. *Review of Higher Education in Africa*. Vol. 4, 63-83.

Priyatmi, Endah Tri. 2010. *Membaca Sastra dengan Ancangan Literasi Kritis* Jakarta PT Bumi Aksara.

Raharso, S. 2007. Implementasi Problem Based Learning di Perguruan Tinggi. *Jurnal Ilmu Pendidikan*. 34 (1): 55-61).

Rahayu, K. 2010. *Hubungan Motivasi Berprestasi dan Pengalaman Kerja Industri Peserta Didik terhadap Efektivitas Pembelajaran Produktif* (Studi pada SMK Negeri di Kota Tasik Malaya). Tesis. Bandung: PPS – UPI).

Rahmat, M. 2012. *Hubungan Persepsi Siswa tentang Keterampilan Mengajar Guru dan Motivasi Berprestasi dengan hasil Belajar Siswa Sekolah Menengah Kejuruan*. Tesis. Bandung: PPS-UPI.

Sanjaya, H. Wina. 2012. *Strategi Pembelajaran Berorientasi Standar Proses pendidikan. (edisi 9)*. Jakarta: Kencana Penada Media Group.

Santrock, John W. 2008. *Educational Psychology, ed 3th*. Avenue of the Americas: McGraw-Hill.

Satriani, I., Emilia, E. & Gunawan M. H. 2012. Contextual Teaching and Learning Aproach to Teaching Writing. *Indonesian Journal of AppliedLinguistics*, Vol 2, No1 July2012.pp10-22.

Schunk, Dale H. 2012. *Learning Theories: An Educational Perspective*. Ed 6th . New Jersey: Person Education, Inc.

Shymanskay, J. 1992. Using Construcitvist Ideas to Teache Science Teachers about Constructivist Ideas, or Teachers Are Students too. *Jornal of Science Teacher Education*, 3 (2): 53-57.

Slavin, Robert E. 2009. *Educational Psychology: Theory and Practice, ed 9th*. New Jersey: Pearson Education, Inc.

Sugiyono. 2013. *Statistika untuk Penelitian*. Bandung: Penerbit Alfabeta.

Sujarwo. 2011. *Pengaruh Strategi Pembelajaran Inkuiri Terbimbing dn Ekspotitori terhadap Hasil Belajar Sosiologi pada Siswa yang Memiliki Tingkat Motivasi Berprestasi dan Kualitas Berbeda*. Disertasi Program Program Pascasarjana Universitas Negeri Malang.

Suparno, P. 1997. *Filsafat Konstruksivisme dalam Pendidikan*. Yogyakarta: Penerbit Kanisius.

Tella, A. 2007. The Impact of Secondary on Students'Academic Achievement and Learnig Outcomes in Matematics among Secondary School Students in Nigeria. *Eurasia Journal of Matematics, Science and Technology Education*, 3 (2): 149-156.

Vygotsky, L. 1978. *Mind in Society: The Development of Higher Psychological Processes.* Cambridge, M. A. : Harvard University Press.

Wahyudi, I. 2007. "*Menyiasati Kurikulum Pelajaran Sastra Indonesia di Sekolah: Kiat untuk Mafhum dan Berbenah"* (Online). Tersedia: http://johnherf.wordpress.com/2007/02/07/bahasa-dan-sastra-indonesia-di-sekolah/. (2 Januari 2007).

Winarto, B. 2012. *" Pengaruh Dua Strategi Pembelajaran Inkuiri dan Ekspositori dan Motivasi Belajar terhadap Prestasi Belajar*". Disertasi. Program Program Pascasrjana Universitas Negeri Malang.

Yildirim, B dan Ozkahraman, S. 2011. "Critical Thingking in Nursing Process and Education." *International Journal of Humanities and Social Science*, 1 (3), 257-256.

The Influence of Interactive Learning Model vs Direct Learning Model and Achievement Motivation on Learning Outcomes English Discourse Reading Comprehension Grade VIII Kupang

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Abstrak: The study had three issues, namely: (1) whether there are differences in learning outcomes reading comprehension of discourse between students taught by using the model of interactive learning and hands-on learning; (2) whether there are differences in learning outcomes reading comprehension of discourse between students who have high achievement motivation and low achievement motivation; and (3) whether there is an interaction between the learning model interactive and hands-on learning and achievement motivation on learning outcomes.
The purpose of research is (1) To test whether there is any difference in learning outcomes reading comprehension of discourse between students taught by using the model of interactive learning and learning directly, (2) To test whether there is any difference in learning outcomes reading comprehension of discourse between students who have high achievement motivation and low achievement motivation, and (3) To test whether there is interaction between the learning model and achievement motivation on learning outcomes reading comprehension of discourse.
The subjects were students of class VIII (C and D) SMP II Kupang. Which was randomized number C grade students 36 people and the number of class D 34 people. This research was analyzed descriptively by using SPSS window version 16.00. The procedure research begins by preparing the syllabus; lesson plans, teaching materials, test instrument, achievement motivation instruments. The results showed that (1) Interactive Learning Model is superior compared with a mean of 61 848 Direct Learning Model with a mean of 55 368. (2) There are significant differences in learning outcomes between students who are highly motivated high achievers with a mean of 64 779, while the mean motivated underachieving students at 52 436 and (3) There is an interaction between the learning model and achievement motivation on learning outcomes. English reading comprehension of discourse is evident with a mean value of student learning outcomes that are subjected to interactive learning model with high achievement motivation amounting to 69 023, while the mean value of student learning outcomes that are subjected to interactive learning model with low achievement motivation as much as 54 673. Students who receive treatment direct instructional model with high achievement motivation earn a mean learning outcomes by 60 536 while students who get treatment direct instructional model with low achievement motivation gets a mean value of 50 199.

Keywords: interactive learning model, direct learning model, achievement motivation, learning outcomes.

Reading is one of language skills besides the other language skills such as listening skills, speaking skills and writing skills. Each language skills are closely related to the thought processes that underlie language. Listening and reading skills are closely related because both are means to receive communication while speaking and writing skills are closely related because both are a way to express the meaning (Anderson and Krathwoll, 2001). The reading

process has three basic components that are important, namely recording, decoding, and meaning. Recording refers to the words and sentences, and then associate it with sounds that match the writing system used. The process of decoding (encoding) refers to the process of translating a series of graphics into words. Thus concluded that reading is not a simple activity within the meaning attempts to obtain what is written in the text but reading is an activity grafonic interaction, syntactic, semantic and schematic (Wassid and Sunendar, 2011).

Strategic reading strategies required in reading. Effective readers are readers who use a variety of reading strategies in accordance with the text and content in order to construct meaning when reading. Reading is an interactive process. Reader involvement with the text depends on the context. People who love to read a text will meet the objectives to be achieved. Is that reads text aimed at obtaining pleasure (reading for pleasure) or a text with the aim of obtaining information (reading for information). Whatever the objectives to be achieved by the reader, it is certain that the text is read must be understandable (readable) so that the interaction between the reader with text (Abidin, 2012)

Broadly speaking there is two essential skills in reading is a skill that is both mechanical (mechanical skills) and skills that understand (comprehension skills). In developing and improving the skills of learners in reading need to consider several things related to the learners as shown below.

a. Reading aims to broaden the experience of learners in the understanding of science, technology, and culture.
b. Reading means teaching language sounds, symbol and meaning of new words to the learners.
c. By reading the learner can help learners understand the structures that are difficult in sentence.
d. Through reading the learner can teach the skills of understanding (comprehension skills) and can improve the speed and accuracy (fluency and accuracy) in reading
e. Reading activities have different purposes depending on the circumstances or learning level. (Rahim, 2009).

Learners who are at the beginner level, the reading process is a process for recognizing symbols, recognizing words and sentences, finding main ideas and key words, and can be told of the contents of short readings. The purpose of reading for learners who are at intermediate and advanced positions is to find the main idea and supporting ideas, interpret and digest readings, as well as communicating the contents reading

Tarigan (2008) cites the opinion of Broughton who said that in reading activities, especially in the foreign language text, pronunciation becomes more important than comprehension and reading materials chosen should contain content and language relatively easily understood by learners.

Hadley (2001) says in learning to read, pre reading activity is very important. This is because the activities in pre reading apperception learners can perform activities related to the discourse that will be read by students. In pre reading activities learners can do the work of predicting the content of reading or trying to make hypotheses on the content of the discourse.

Reading activity predicts the content will be able to motivate learners to compare what has been predicted by the contents of discourse actually. Rahim in Abidin (2012) to support what was said by Hadley that pre reading activity can activate the schemata of students at once arouse curiosity and interest in reading the discourse learners will read.

Brown (2001) said that in addition to the activities pre reading, read core activity is also very important in learning to read. In addition to the core activities of pre reading and read, pre reading activity is also important. Was said to be important because at this stage the learners can test their understanding by comparing the hypothesis or prediction drawn up in stages with

the content of reading pre reading to build a new understanding of the content of the discourse. Resmini (2006) have the same opinion to the above opinion is that the activity is post reading learning activities to develop reading, asking questions, relating back and visual presentation.

The other model reading is reading linear models which are also called bottom-up models. This model considers that the text determines the language that embodies an understanding. Bottom-up models also called skill models pioneered by the research figures read like Cough, Alford, and Holley Wilcox (Abidin, 2012) The model begins with the basic steps that the process of recognition of the texts and sounds, recognize morpheme, word, grammatical structure identification, the process of recognition of letters, words, phrases, sentences, text and finally towards the meaning for the achievement of an understanding.

Furthermore, there is a psycholinguistic model of reading is often known as top-down models. This model is also called holistic models. Figure studies to introduce this model is Kenneth Goodman Smith (Anderson, 2001) The model begins with the step reading predictions, hypotheses, which may be in the reading to capitalize the knowledge of the content and its own language. The core notion of this model is that the knowledge, experience. Furthermore, there are interactive learning model, known as a model of balance. Prominent research interactive learning model is Rummelhart (Rummelhart, 1977) .Then followed by other research leaders such as Anderson, (2001) and Brown (2001).

Thus, based on the understanding stated above, the actually what is problematic in teaching reading at the moment? Empirically which become problems in learning to read in school today, especially learning to read in class VIII are:

1. Learning to read in school are learning to read that only refers to the practical interests of the learner is able to answer questions in the reading.
2. The unclear role of the learner in learning to read. Learners simply assign learners to read and become a model for learners read.
3. To test reading comprehension by having the learner do learners answered questions readings.
4. Translating word by word more frequently performed than on guiding learners contextually translated text.
5. Selection of the reading text for learners not measures the readability level learners.
6. Learners do not feel it is important to select and apply relevant learning model in order to enhance the learners understanding of the content of the discourse or text in particular discourse or English text to be read.
7. In the learning process in the classroom learners more plays as a center (teacher-centered) of the learners as the center (student centered).
8. Conditions of learner's class that is not conducive because the number of learners is at the amount of at least between 36 to 38 students in one class.
9. Schools do not prepare a resource book that can be used by learners in classical learning.
10. Learners and learners themselves have attempted to hold a book or learning resources as needed.

In this study the researchers chose to conduct research, especially in the areas of reading comprehension in English discourse formulated through a titled: Influence of Interactive Learning Model vs. Model Direct Learning and Achievement Motivation on Learning Outcomes Discourse Reading Comprehension English learners Junior Class VIII in Kupang Nusa Tenggara Timur

RESEARCH METHODS

Implementation of research and data collection is done in SMP Negeri 2 Kupang on odd

semester 2015/2016 academic year from early November 2015 until the end of December this 2015. The research uses quasi experimental study design type or quasi-experimental research. In the experimental study, researchers did not have the flexibility to do random class because the class that there is already structured by school administrative (Setyosari, 2013: 45).

This research designed by ANOVA (Analysis of Variance) two lanes. This is in line with what is proposed by Kerlinger (2003: 351) and Tuckman (1999: 386) that the study design anava two pathways is a design study that describes about the existence of two independent variables or more mutually confronted to assess the consequences independently of the a bound variable.

Study groups were used as research subjects, drawn from Junior High School 2 class VIII kupang State which accounted for 36 0rang class C and class D amounted to 34 people. Both of these classes either an experimental class or control class in the learning process guided by the learning device such as syllabus, lesson plan (RPP), teaching materials, student activity sheets and sheets of student assessment. Based on the curriculum and syllabus subjects of English junior class VIII first half, the kind of discourse that is taught is the kind of discourse descriptive and recount. Thus both these types of discourse used in the study.

The number of meetings allocated to each group / class, 6 times plus 1 times for the pre-test and 1 times for post-test. Each meeting lasted for 2x 40 minutes. All learners are the subject of research, before the treatment is done first given pre-test learning outcomes discourse English reading comprehension and achievement motivation filling instrument. The research instrument includes two things: the development and testing of instruments and research instruments. The development of research instruments associated with the preparation of the instrument while the instrument trial related to whether the instruments are arranged to qualify the reliability of follow-Richarson Kuder way test that resulted in a score with a dichotomy on the test item (1 and 0) with the formula Kuder- Richarson KR formula 21 and validity of the items on achievement motivation instrument used product moment correlation analysis. An item is said to be valid if r counting> r table (5%) (Sugiyono, 2013).

Normality test is done by testing Liliefors Significance of Kolmogorov- Smirnov correction by SPSS for Windows version 16.0. Homogeneity test conducted by test Levene's test. Decision dissemination or distribution normality and homogeneity of variance based on the provisions of significance of 5%.

RESULTS AND DISCUSSION

This study research designed Anova (Analysis of Variance) two lanes. The table below illustrates the results of the analysis and discussion of two paths.

Table Analysis Results Anova Two Lines

Tests of Between-Subjects Effects
Dependent Variable: learning outcomes
Anova Analysis Results Table Two Lines

Tests of Between-Subjects Effects					
Dependent Variable: HasilBelajar					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	59416.496[a]	4	14854.124	586.253	.000
Intercept	394719.878	1	394719.878	15578.555	.000
model	1206.450	1	1206.450	47.615	.000

motivation	1627.174	1	1627.174	64.220	.000
model * motivation	115.678	1	115.678	4.565	.034
Error	3420.547	135	25.337		
Total	574304.500	140			
Corrected Total	62837.043	139			
a. R Squared = .946 (Adjusted R Squared = .944)					

The results of the analysis of the learning model Anava known that the calculated F value of 47 615 with significant value 0.000 probability that is below the significance level of 0.05 or (p <0.05). Thus concluded there were differences in learning outcomes of English reading comprehension of discourse between groups of learners who received treatment with an interactive learning model and the group of learners that are subjected to direct instructional model. Based on the formula proposed hypothesis, we conclude that H0 is rejected and H1 accepted.

The results of the analysis of achievement motivation Anava to note that the value of F arithmetic amounted to 64 220 by the significance probability value of 0.000 is below the significance probability 0:05 (P <0.05). Thus concluded there are differences in learning outcomes of English reading comprehension of discourse between groups of learners who have high achievement motivation with a group of learners who have low achievement motivation.

Anava analysis results related to the interaction between the learning model and achievement motivation explained that the value of F count equal to 4,565 and the significance probability value of 0.034 less than the significance probability 0:05. Thus concluded there is interaction between the learning model and achievement motivation on learning outcomes discourse English reading comprehension.

CONCLUSIONS

1. In Learning English reading comprehension of discourse, there are significant differences in learning outcomes between the groups of learners who receive treatment model of interactive learning and group of learners that are subjected to direct learning model.
2. The difference in learning outcomes discourse English reading comprehension significantly between groups of learners who have high achievement motivation and groups of learners who have low achievement motivation.
3. There is an interaction between the learning model applied and achievement motivation possessed the learning outcomes discourse English reading comprehension. Thus it can be said that in the learning of English reading comprehension of discourse, interactive learning model is superior to direct instructional model if high achievement motivation learners.

Suggestions

the suggestions in this paper are:

1. We recommend that in the process of learning English reading comprehension discourse, subjects of English learners can consider Interactive learning model as an alternative model of learning in order to improve learning outcomes discourse reading comprehension of English learners.
2. Learners need to pay attention to the issue of motivation of achievement of each learner in the classroom so that treatment guidance in the learning process more focused.
3. Keep the communication space cooperation between the learners and parents of learners in providing motivation, reward and facilities for effective learning process and increase learning outcomes learners are expected.

REFERENCES

Abidin,Y. 2010. *Ability and Speaking Academic*. Bandung: Rizqi Press.

Abidin,Y. 2012. *Learning Reading Education Based Karakter*. Bandung: PT RefikaAditama.

Anderson. 2001. *Teaching Elementary Language Arts*.New York: Allyn & Bacon.

Anderson & Krathwoll. 2001. *Taxonomic for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives Bridge Edition*.NewYork: Addision Wesley Longman Inc.

Brown, H.D. 2001. *Teaching by Principle. An Interactive Approach to Language Peadagogy*.San Francisco: Longman.

Cohen, L. 1976. *Educational Research in the Classroom and School A Manual of Materials and Methods*. San Francisco: Harper and Row Publishers.

Degeng, I.S.N. 2013. *Learning Sciences. Classification Variables for Development Theory and Penelitian*. Bandung: Kalam Life

Hadley, A.O. 1993. *Teaching Language in Context. (University of Illinois: Hainle & hainle Publishers*. Inc. Bostan, Massachusetts

Kerlinger, F.N 2003. *Principles of Behavioral Research (3th edition) .Penerjemah: Landung R.Simatupang*. Yogyakarta: Gajah Mada University.

Rahim, F. 2009. *The teaching of reading in schools Dasa*r. Jakarta: Earth Literacy.

Resmini. 2006. *Reading and Writing in SD: Theory and Learning was. Bandung*: Upi Press.

Rubin, D. 1993. A Practical Approach to Teaching Reading. Boston.Allyn and Bacon.

Rumelhart, D.E & Norman D.A. 1977.The Knowledge representation in Memory.Dalam R.C.Anderson, R.J Spiro and Montague. (Eds) *Schooling and Acquisition of Knowledge*. Hillsdale, N.J. Lawrence Erlbaum Associates.

Rumelhart, D.E & Norman D.A. 1981. *Analogical process in Learning*. Hillsdale, N.J. Lawrence Erlbaum Associates.

Setyosari, P & Sihkabuden.2005.*Media Pembelajaran*. Penerbit Eagle: Malang

Sugiyono.2013.Metode *Pendidikan.Pendekatan Research Quantitative, Qualitative and R & D*. Bandung: Alfabeta.

Tarigan, H.G.2008. *Speak reading as a skill*. Bandung. Penerbit Space

Tuckman, B.W. 1999. *Conducting Educational Research. Fifth Edition*. Orlando: Earl Mcpeek Publisher

Wassid I. & Sunendar.2011.Strategi Language Learning. Bandung.PT Youth Rosdakarya.

The Learning of Civics Education Based on Contextual Teaching and Learning (CTL)

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Abstract: Civics education in the new paradigm applies the student-active learning approach that leads activities in the class to the student-active learning and inquiry approach, and involves the students in the process of solving problems and making generalizations. Such learning is in line with jurisprudential learning inquiry strategy that emphasizes the way of solving problems by asking question, debate, and argumentation. Through this learning strategy, students are led to think structurally through debates and discussions to pursue their stance on contemporary issues. The issues learned in civics education in Indonesia are the real fact, and as such aims to bridge between students' prior knowledge and the implementation. It is suggested that teachers of civics education must facilitate their students in the class by leading them to solving the problems. It is the teachers' task to facilitate students and give them room for creating their ideas. All in all, the learning of civics education through jurisprudential inquiry learning strategy on the basis of contextual teaching and learning is discussed.

Keywords: civics education, contextual teaching and learning (CTL), jurisprudential inquiry learning strategy

Currently we live in the era of globalization in the 21st century that is marked by many changes in all aspects of life, not only in science and technology, but also in the economic, social, and politic. In the era of globalization, which is also called the information age there is a process change between countries, between nations, between cultures and without limits. The 21st Century is also a knowledge century, the century in which information and technology are widely spread. The 21st century's characteristic is marked by the world of integrated sciences, so that the synergy of which are becoming increasingly rapid. In the context of the use of information and communication technology in education, has been proven by narrowing and melting factor "space and time" that has been the key aspects of speed and success of science by mankind (BSNP, 2010).

Such rapid changes in this information age must be responded quickly by the world of education. Education should be able to prepare a generation that can face the challenges of appropriate changes in his time. According to Ken Kay, president of the Partnership for 21st Century Skills, every disciple of the 21st century should be: (1) involving critical thinking, (2) a problem-solvers, (3) an innovator, able to communicate effectively, (4) collaborating effectively, (5) adapting themselves, (6) understanding of information and media, (7) understanding and being aware of global issues, (8) thinking about the public interest, (9)being skilled in finance, economics and entrepreneurship.

National Education of 21st century aims to actualize the ideals of the nation which are making the people of Indonesia a prosperous and happy life, with a respectable position that acknowledged with other nations in a global world, through the establishment of a society of high quality human resources, which is an independent person, willing and capable to actualize the ideals of the nation (BSNP 2010) . By the many changes in the 21st century that marked the

era of globalization, learning materials will no longer be information in the field of study regardless of the students will study the relationships between information. It takes a multidisciplinary thinking and the ability to see the world from variety perspectives. In the future, children are required to have the skills to think and learn. Those skills are problem solving skills, critical thingking skills, collaboration skills, communication skills, and creativity and innovation skill. Responding to various changes and great demands in the 21st century education, contemporary learning paradigm shifts from teacher-centered to student- centered, for example, students who actively participate in the learning process. The role of the teacher turns into a manager and facilitator, for instance, as a manager of learning that facilitates learning activities (Hosnan, 2014).

Relating to the characteristics of 21st century learning, learning strategies implemented by teachers in the classroom, Hosnan (2014: 85) has seven characteristics: (1) learning centered on the learner (student-centered); (2) developing students' creativity; (3) creating an exciting, fun, and meaningful learning; (4) developing diverse abilities contain moral value and meaning; (5) active learning, students do more; (6) stressing the excavation, discovery and creation, and (7) creating learning in real situations and real terms namely through a contextual approach. Of the seven characteristics of 21st century learning, the writer will discuss more about contextual approach, especially in learning Civic Education.

Learning civic education as curricular program is still not fully implemented correctly, activities are still teacher-centered, students are memorizing, reading, and learning with lack of joyful things and sticking to textbook too much ("textbookish") (Wahab 2008; Suwarma 1990; Zuriah 2010; Winataputra, 2008). Learning civic education has been impressed less flexible, less democratic, and teachers tend to be more dominant (one way method). In addition, it still uses the conventional model which is monotonous, the activities of teachers are more dominant than the students, and as a result teachers often ignore the process of teaching values, attitudes, and behaviours. This causes the subjects of Civic education not considered as subjects of educating that emphasizes on citizen awareness of the rights and obligations of citizens, but it is more likely to be saturated and boring subjects. Besides learning Civics also tend to be less meaningful because it relied on the assessment of the results rather than on the process. On the other hand, students tend to be less interested in the subject because it is considered Civic education as a lesson that only emphasizes on memorizing, less emphasis on the reasoning that lead to low interest in learning Civic education in the school.

One of problems on the key issues in learning Civic education is a learning strategy that has not been able to optimally achieve the learning objectives which are loading moral values and meaning in learning. Therefore, Civic education teacher should be able to design and develop appropriate strategies and Civic education learning materials, so that it results values-loaded teaching corresponding to the outlook of the nation. Another thing that is not less important in learning Civic education is how learning materials relating to these moral values to be internalized on students and implemented in everyday life into students character. It is related to public criticism of the Civic education which is not charged practical values but merely a political or indoctrination tool for the interests of power government.Therefore, contextual learning is appropriate to learn Civic education so that what is learned is relevant, having relationships and directly related to the problems in social life.

In the midst of changes, by contextual learning in Civic education, teaching materials can be developed from a variety of problems growing and taking place in society, so that it will be relevant between what is learned in school with what students find in real life, thus learning will be more meaningful. In perceiving and assessing a problem, everyone would not always be the same, especially about controversial issues, there are pros and cons. Controversial issues presented in the learning Civic education with jurisprudential strategy inquiry can raise

students' ability to think. According to Solihatin (2014), the instruction with the controversial issue is able to develop a new opinion through different opinions. This paper attempts to explain the contextual based learning in Civic education with the application of jurisprudential inquiry learning strategy, especially in the era of globalization which is ongoing.

DISCUSSION

Civic education has a very important role in moral values education, which is called educating for character or character education. Imperatively character education is not new in our national education system for the purpose of national education in all applicable laws and once in force (UU No. 4/1950; UU No. 12/1954; UU No. 2/89; UU No. 20/2003) with the substantively different formula that loads the characters. Civic education education and Religious education have such an important role in building human resource character. Samsuri (2013) stated that the assessment Civic education in Curriculum 2013 places the responsibility of character formation as an essential part subjects, Civic education and Religious Education those core competencies include spiritual attitudes competencies, social attitudes, knowledge and skills vertically and horizontally becoming the responsibility for all subjects.

According Winataputra (2008), Civic education with a new paradigm, applies student-active learning, i.e. learning that focuses on active student learning and inquiry approach, namely learning approach involving learners in the process of extracting information in order to problem-solving or generalization formulation. Along with a new paradigm in Civic education learning as proposed by Winataputra, the current era of globalization and education in the 21st century, characterized by more student-centered learning, and the teacher's role shifts as fasilitator, tutors and learners at the same time. Reacting to these changes, Civic education teacher should be able to apply learning strategies that can make students active, capable of identifying and formulating problems, and provide solutions to solve it. In addition, in learning process, students no longer need to be a reminder of the fact and the principle but would act as a researcher, problem-solver, and strategy maker. Thus, the implementation of learning that will develop and train students to think critically, think logically. One of the learning strategies that can develop the ability to think critically, think logically and critically, to improve students' activity by analyzing and discussing social problems in the community, and solving the problem scientifically, is the strategy of inquiry learning.

Roestiyah (1998) said that the inquiry is an expansion of the discovery process that is used in a more mature way. In addition to the process of discovery, inquiry contains the mental processes of a higher order, such as formulating the problem, designing experiments, conducting experiments, collecting and analyzing data, drawing conclusions, cultivating an attitude of objectivity, honesty, desire to know, open, and so on. Coffman (2009) defines as inquiry learning focuses on the work of teachers in asking questions consistently to improve students' understanding of learning materials for teaching and learning in the classroom. Meanwhile Suchman in Joyce, et al, 2001) suggests the inquiry goal is to develop cognitive skills in track and process the data. Furthermore, the inquiry can enhance the ability of the student to see the concepts of logic and causality in its own processing of information productively. Thus, students can learn independently, conduct independent research to stay on track discipline of science. This was confirmed by Kuhlthau, Maniotes, and Caspari (2007) which emphasizes inquiry on inquiry learning process of supporting a research looked at as a model of learning that literacy is transferring knowledge into a research process. Based on this understanding, inquiry is seen as learning that is not only oriented to the achievement of mastery learning materials but further addressed in order to foster competence, find information, evaluate the information, and use information through a series of research process. In practice,

students are involved in all phases of research from the stage of determining the problem, formulate and focus on research purposes, to present the results of research as an end product of learning.

Soetjipto (1997) stated that student inquiry strategy provides the ability to be a problem solver who is independent (independent problem solver). Meanwhile Hasting (2001) suggested that research results reveal that students are taught to problem-solving to encourage students to no longer verbalistic, and should be able to improve the effectiveness of learning become more meaningful. In addition, inquiry learning strategies develop intellectual abilities (thinking skills) that are built with the processes of reflective thinking. This suggests strategies of constructivistic inquiry learning, where students build and find their own knowledge.

The various strategies of existing inquiry, jurisprudential inquiry (research jurisprudential or legal research) is a strategy in its application is based on problem solving and relies on student activity, develop the ability to think logically and critically, thereby developing the potential of cognitive, affective and psikomotor. Jurisprudential inquiry emphasizes problem-solving to answer questions through discussions, debates, and arguments over issues concerning the controversial issue. In the execution of the students are grouped into two parties against each other in a position to examine the attitude of his chosen position ie approving or rejecting a case filed by basic arguing. Students should provide the basis or foundation on the position of his attitude, certainly with the knowledge that was established by students with a way to read, discover the sources of reading and literature in libraries available and knowing the real situation in public. According to Oliver and Shaver (1974) through a strategy of jurisprudential inquiry learners learn to think in a structured discussion and debate to determine the views and established its position in discussing contemporary social issues. Meanwhile, according to Uno (2007.21) jurisprudential inquiry individual candidates are able to produce citizens capable of overcoming the conflict difference in many ways.

Meanwhile Kurth & Green (2003) argues that the concept of civic education that is responsive to the challenges of globalization. The younger generation is required to understand what is happening around by addressing social issues such berkembang.Dengan inquiri jurisprudential learning strategy is closely linked to the approach Contextual Teaching and Learning (CTL) .In general contextual connotes that are pleasing, relevant, there is a relationship or direct link, follow the context, which brings purpose, meaning, and importance. Thus, the CTL approach must associate professor of teaching materials with real world situations students. It encourages students to make connections between the knowledge learned to its application in the lives of students as members of families and communities, so that the learning outcomes will be more meaningful and useful. Learning is no longer simply a transfer of knowledge from teacher to student, but where learning takes place naturally directed towards the attainment of skills in the context of real life in a pleasant atmosphere.

Contextual learning is based on the research of John Dewey (1916) in Hosnan (2014) found that students learn better if what is learned is related to what is already known and with activities or events that occur around them. The importance of contextual learning associated with constructivist psychology theory by Vygotsky (1978). The essence of the theory is that students learn how to construct their own understanding of what is learned. According to this theory, in the minds of the students there are such schemes an image or a computer file that contains an overview understanding of something that is learned. Through the scheme think this is someone to understand something. Schemes can be very simple, but can also be very complex, depending on the level of development of thinking skills are concerned.

Johnson (2002: 25) states that the CTL system is an educational process that aims to help students see meaning in the academic material they are studying by connecting academic subjects with the context of their daily life, that is, with the context of social and cultural

circumstances. While according Karweit (1993), learning CTL makes students solve problems through activities that reflect real events in life, learning needs to be well designed. In this regard, it is important for teachers to relate what is learned in everyday life (in context with daily life) by using language that can be understood by students (in context with the cognitive development of students). This will cause the student to understand the meaning of what is learned for him that will motivate learning. In this regard Sanjaya (2013) asserts that with contextual learning strategy or CTL, the students are fully engaged in learning to be able to find the material studied and relate them to real life situations, thus encouraging students to be able to make connections between knowledge dimilikinyadan apply them to life they.

According Trianto,(2009: 107), there are seven main components of contextual learning, namely: contructivism, questioning, inquiry, community learning, modeling, and authentic assesment. Then proposed to apply the seven components of the outline is by doing the following: (1) develop the idea that the child will be learning more meaningful by working alone, find themselves, and construct their own knowledge and new skills; (2) implement as far as possible the activities inquiry for all topics; (3) develop students' curiosity by asking; (4) create a "community of learning" through group learning; (5) present a "model" as an example of learning; (6) do reflection at the end of the meeting; and (7) do the actual assessment in various ways.

Contextual learning strategies jurisprudential inquiry makes learning to take place naturally in the form of student work and activities to experience, discover, and discuss problems and find solutions to problems, not a transfer of knowledge from teacher to student. Students understand what it means to learn, what the significances, the status of what they are, and how to achieve it. They are aware that learning is useful for life. Students used to solve problems, find something useful for him and wrestle with the idea of teacher. Teacher should help to connect old knowledge to new knowledge, and facilitate learning. Students should know the meaning of learning and use knowledge and skills acquired to solve problems in life. So that children can not only memorize lessons but is also expected to change the attitude, behavior, character and morals of children.

With regard to the learning jurisprudential inquiry with context follows the expressed opinion Singh (2009) in his article "Developing competence in social dialogue through jurisprudential inquiry model" which suggests jurisprudential dialogue to teach social values such as democracy and the values of equality, justice, liberty, public welfare , secularism, respect for human dignity and the rights of citizens, by raising issues of social and public policy issues are controversial in pembelajaran.In line with Singh (2009; 2010), Del Mar (2009: 18) in empirical studies voiced that if a person is able to see things inquiry, such as looking at the issue of the origin of positivistic and pure science from a different angle, then that person will be able to unlock the possibilities of the topics, issues and possible solutions or suitable for issue the.

In line with what happened in India, we see Civic education is unique, because the subjects' Civic education interpreted as the value of education, democracy education, moral education, and Pancasila education (Al Muchtar, in Anitah, 2010). For that very appropriate teaching materials Civic education taught with contextual approach, so that the values contained in it can be implemented through examples of problems that occur in real life. In connection with the subject matter Civic education the content standards stated that the subject matter Civic education include: principles of democracy, awareness to defend the country, respect for human rights, pluralism, environmental protection, social responsibility, obedience to law, obedience to pay taxes, as well as attitudes and behavior of anti-corruption, collusion, and nepotism should be known, understood, internalized and applied in everyday life. This indicates that the material Civics contains some characters which can be displayed in daily life.For high school level, for

example, the material Civic education covers topics that the scope of the material is based on the curriculum in 2013, among others with regard to cases of human rights violations, and the moral values embodied in the 1945 Constitution, rights and obligations of citizens, as well as problems of national integration within the framework of NKRI.

In the era of globalization and the flood of incoming information, to teach the material of violation of human rights, for example, students can be assigned to explore human rights issues in the world and in the country. Students can raise specific cases of capital punishment for drug crimes. The case was debated by their controversial opinions, as anyone agrees and supports this policy, but some are not agree or reject it. Contextual discussion of this issue will make students think and find out about what is meant by human rights, how can human rights be upheld, human rights violations, and an example of human rights violations that occur in the various countries of the world and are also happening in Indonesia. Content that is controversial it be interesting if contentious, in the group "Pros" and "Cons", with the debate students are encouraged to think and give their best opinion based on reasons of course associated with the theory, data and facts that support. By the time the students explore the theory, data and facts underlying his opinion during the debate to provide the best reasons and connect with the reality faced by students, by contextual learning itself already underway.

Likewise, the matter of democracy can be served with the implementation of the local elections that was to proceed. Students are faced with questions related to the problem of rules and the local elections that are already running as well as it should. The problem is packed into a controversy; on the one hand states are going well, but other states yet either. For that like doing a research, students make questions, assess, evaluate and conclude his opinion after discussed with the group. Based on these two examples, develop learning materials with the application of learning strategies Civic education inquiry jurisprudential in line with the Contextual Teaching and Learning (CTL) approach.

CONCLUSION

To improve the quality of learning, efforts were made. Teachers as planners and implementers work to apply the learning approach in the classroom and learning strategies that can optimize the achievement of goals. In the era of globalization we are living in the 21st century, changes in various fields of life go so fast. Education should be able to respond to such change, and provide a learning experience to equip students to face his life.

In the midst of changes, through contextual learning in Civic education, teaching materials can be developed from a variety of problems and are taking place in society, so that relevant between what is learned in school and what is faced by students, thus learning more meaningful. In perceiving and assessing a problem, everyone would not always be the same, especially controversial issues there are pros and there are cons. Through controversial issues presented in the learning Civic education with jurisprudential inquiry strategies can awaken a person's ability to think. Civic education contextual based learning in the application of learning strategies jurisprudential inquiry, especially in the era of globalization is appropriate to be applied.

REFERENCES

Anitah, W.S. & Al-Muchtar, S. 2010. *Strategi pembelajaran PKn.* Jakarta: Universitas Terbuka

Bennet, W.J. 1991. *Moral Literacy and the Formation of Character. In: J.S.Bennigna (ed). Moral Character, and Civic Education in the Elementary School*. New York: Teachers College Press.

BSNP. 2010. *Panduan Penyusunan Kurikulum Tingkat Satuan Pendidikan Jenjang Pendidikan Dasar dan Menengah*. Jakarta: Badan Standar Nasional Pendidikan.

Coffman, T. 2009. *Engaging Students Throug Inquiry-Oriented Learning and Technology*. New York: Rowman&Littlefiled Education.

Hasting, D. 2001. *Case Study: Problem Based Learning and The Active Classroom.* http://www.Studies.ubc.co.fadev/service/html. Diakses 23 Februari 2015.

Johnson, E.B. 2010. *Contextual Teaching & Learning: Menjadikan Kegiatan Belajar Mengajar Mengasyikkan dan Bermakna*. Bandung: Kaifa.

Joyce, B. et al. 2001. *Models of Teaching*. New York: Allyn and Bacon.

Karweit, D. 1993. *Contextual Learning: A Review and Synthesis*. Baltimore, MD: Center for the Social Organization of Schools, John Hopkins University.

Kuhlthau, C.C., Maniotes, L.K., & Caspari, A.K. 2007. *Guided Inquiry: Learning in The 21 st Century*. London: Libraries Unlimited.

Kurt, R., Schai. & Green, C.R. 2003. Re-envisioning Education for Global Citizenship. *Journal Pacific Asian Education. Vol 15, No.2, 2013.*

Roestiyah, N.K. 1991. *Strategi belajar mengajar*. Jakarta: Rineka Cipta.

Samsuri. 2013. Paradigma Pendidikan Kewarganegaraan dalam Kurikulum 2013. *Kuliah Umum Program Studi Pendidikan Pancasila dan Kewarganegaraan FKIP Universitas Ahmad Dahlan Yogyakarta 15 September 2013.*

Sanjaya, W. 2013. *Strategi pembelajaran berorientasi standar proses pendidikan*. Cetakan 10. Jakarta: Kencana Prenadamedia.

Singh, V.P. 2010. Effectiveness of Jurisprudential Inquiry Model of Teaching on Value Inclination of School Students. *Journal Indian Educational Review. Vol. 47, No. 2, Juli 2010.*

Soetjipto, B.E. 1997. "Penggunaan Pengajaran Inkuiri di Sebuah Sekolah Dasar di Victoria, Australia", dalam: *Jurnal IPS dan Pengajarannya.* Th 31. No.1 Juni, Malang: FIPS IKIP.

Solihatin, E. 2012. Strategi Pembelajaran PPKN. Jakarta: Bumi Aksara.

Sri-Anitah, W. & Suwarma A.M. 2010. *Materi Pokok Strategi Pembelajaran PPKn.* Jakarta : Universitas Terbuka.

Suwarma, A.M. 2000. *Pengembangan kemampuan berpikir dan nilai dalam pendidikan IPS*. Bandung : Gelar Pustaka Mandiri Bandung.

Suwarma, A.M. 2000. *Pengembangan kemampuan berpikir dan nilai dalam pendidikan IPS*.Bandung : Gelar Pustaka Mandiri Bandung.

Trianto. 2009. *Model-model Pembelajaran Inovatif Berorientasi Konstruktivistik: Konsep, Landasan Teoritis Praktis dan Implementasinya.* Jakarta: Prestasi Pustaka Publisher.

Uno. H. 1997. *Model Pembelajaran: Menciptakan Proses Belajar Mengajar yang Kreatif dan Produktif*. Jakarta: PT. Bumi Aksara.

Veer P.S. 2010. Effectiveness Of Jurisprudential Inquiry Model of Teaching on Value Inclination of School Students. *Journal Indian Educational Review, 47*(2).

Vygotsky, L. 1978. *Mind in society: The development og higher psychological process.* Cambridge, MA: Harvard University Press.

Wahab, A.A. 2008. *Metode dan Model-Model Mengajar Ilmu Pengetahuan Sosial (IPS*). Bandung: Alfabeta.

Winataputra, U.S. 2008. Materi Pokok Pembelajaran PPKn di SD. Jakarta: Universitas Terbuka.

Winataputra, U.S. & Saripudin, S. 2011. Dinamika konseptualisasi Pendidikan Ilmu Pengetahuan Sosial (PIPS) Dan Pendidikan Kewarganegaraan (PKn) pada pendidikan

dasar dan menengah (Suatu Telaah *Collective Mindset* Dalam Ranah Historis-Epistemologis). *Jurnal Pendidikan, Volume 12, Nomor 1, Maret 2011, 1-20*

http://dodisupandiblog.blogspot .com/2010/05/karakteristik pendidikan kewarganegaraan.html.

http://enquiriesaboutinquiry.blogspot.com/2013/01/the-type-of-inquiry-model-that-was-used.html.

http://www.learner.org/jnorth/tm/inquiry/intro.html

Analysis of Genetic Misconceptions Student Biology Education at STKIP Persada Khatulistiwa Sintang

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Abstract: During the learning process of genetic course, students were difficult to assess the material because of its abstraction. Genetics materials contained technical terms that cannot be memorized and pronounced easily by the students. Its concepts were hard to be understood because it does not provide a conceptual framework. Students were not deconstructed and construct the genetic knowledge by using their critical thinking and logical reasoning; it was make the concept of genetic were not understood correctly. Some of the wrong exist concepts about genetic are the students tried to keep concepts confidently that they have gotten when study in the previous level of education by reading and materials has taught in the school, it was said as misconceptions. The student's misconceptions could be transferred to their students when they teach their students in the future. This is a qualitative research; it aimed to reveal the students genetic misconceptions. The samples of the research are 25 students in the 6th semester of biology education study program at STKIP Persada Khatulistiwa Sintang. The result of the research found that students misconceptions include the scope of genetic, genetic material, genetics of mendel, chromosome mutation, DNA manipulation, determination of sex and allelic, and genetics population and evolution.

Keywords: misconceptions, genetics, and biology students.

Students before take formal learning of biology in college already brought initial concept of biology. The initial concept they carry it sometimes inappropriate or contrary to the accepted concept of experts. A different concept that is often called the misconception or alternative concepts. The initial concept, they get while in elementary school, middle school, from their experiences and observations in the community or in everyday life (Berg, 2004). The misconception is also called preconceived ideas, non-scientific belief, naive theories, conceptions or misconceptions conceptual. (Heather, 2003).

According to Widha (2009) the results of the various countries showed that misconceptions experienced by students due to lack of proper application and use media that cannot illustrate the concepts learned. Another opinion explained that the misconception is affected by the process of the formation of knowledge in the minds of students.

Shaw et al (2008) revealed misconceptions of high school students through an essay contest to uncover misconceptions genetic material content. Genetics is one of the biological materials that are considered difficult. Based on the research results of a survey it is conducted by the writer on students of Biology Education at STKIP Persada Khatulistiwa Sintang known that many genetic content has not be understood by students and there are some misconceptions that have always defended the truth (misconceptions). According to Venville, (2002) the genetic material is felt hard by most students because this material is abstract and remote from everyday life. Students assume learning of genetics laborious and tedious. Students are not able to construct genetics as a whole as well as students are not able to connect between concepts of genetics. it leads to misconceptions.

The level of student understanding of the concepts of genetics will affect the level of understanding of the concept of truth and the delivery of genetics further the concept to the next students. Chattopadhyay (2004) reveals the difficulty of understanding the genetics survive in school or college. This is due to genetics are abstract because so elusive concepts.

The concept of genetics is different from the concept of genetic previously understood. Old understanding, genetics strongly associated with a decrease in properties. The next development genetics is the study of genes and their expression. A new understanding of genetics is the study of genetic material associated structure, reproduction, expression, amendments there to, their presence in the population, and its engineering (Corebima, 2009).

From the above background it can be formulated a research problem: What misconceptions genetic material found on the student of Biology education at STKIP Persada Khatulistiwa Sintang? The purpose of the research is to uncover the genetic material misconceptions among students of Biology education at STKIP Persada Khatulistiwa Sintang.

METHOD

This research was conducted in October to December in 2015. The research is a qualitative descriptive study aimed to reveal the genetic misconceptions in the 6th semester students of Biology Education at STKIP Persada Khatulistiwa Sintang. The samples of the research are 25 students. The instrument consists of 30 questions in the form of essays that contains misconceptions found in the study includes the scope of genetics, genetic material, genetics of Mendel, chromosome mutation, DNA manipulation, determination of sex and allelic, and population genetics and evolution. The instruments were distributed to students in the 6th semester of Biology Education at STKIP Persada Khatulistiwa Sintang. The data were analyzed descriptively to obtain a picture of the genetics on the student misconceptions.

RESULTS AND DISCUSSION

Students misconceptions experienced can occur because of misinterpretation of natural phenomena or events that encountered in their life. Misconceptions that students have been obtained at school are still settling on him until he is in college. Misconception usually develops as a learning process. Students experienced student misconceptions can mislead students in understanding scientific phenomena and conduct scientific explanation. If students do not realize the misconceptions, there will be confusion and incoherence on himself. In the end, if not immediately corrected, the misconceptions will be an obstacle for students in the learning process further.

Scope of Genetics

In general, students got a misunderstanding on genetics or scope of genetics. There are 95% of the students understand the genetics or the understanding of genetics as the study of crossing Mendel. But experts revealed that genetics is the study of heredity (inheritance) / genetic substance. Besides genetics they will learn about the genetics of Mendel, the genetic material (DNA, RNA, allele, chromosome, gene, protein synthesis), the structure of the process of formation and transmission of genes and gene expression mechanisms in controlling the nature of an organism, determination of sex and origin of sex, crossovers, chromosome mutations, microbial genetics, DNA manipulation and genetics population and evolution. According to Corebima (2010) Genetic understood as the study of the genetic material, which includes reproduction of genetic material, or the expression of genetic material work, alteration

of genetic material, the presence of genetic material in the population, and the engineering of genetic material. So in total investigated the genetic material. The overall concept of genetics must be understood in a coherent and should not be cut, so that the concept is fully organized and able to give meaning to the science of genetics is intact as well, that of genetic material.

Genetic Material

College students have misconceptions on genetic material of DNA and RNA. In general, college students have misconceptions about the function of DNA and RNA. There was also 80% college students have misconceptions whether the genes in the chromosome or chromosomes are in the genes, their tendencies reveal that chromosomes are in the genes. According W Johansen gene is the smallest unit of a living creature that contains the substance of heredity contained in the gene loci, while the chromosome by Suryo are objects smoother contained in the cell nucleus (nucleus) in the form of a straight or bent and consist of substances easily absorb the dye.

Lodish, et al (2007) revealed that the gene is the entire sequence of amino acid important in the synthesis of functional products in the form of RNA by transcription, and then translated to produce the polypeptide. The process of transcription produces RNA consisting of exons, a control area, and introns. On the concept further, the genes also have Tata box and enhancers. Besides that, college students have misconceptions understanding of homologous chromosomes, where 90% of the students understand that the homologue is chromosomes which has the same shape and size, is actually homologue chromosomes containing genes one allele and will be parallel on the metaphase stage during meiosis.

Autosomal chromosomes understood as chromosomes that are in the cells of the body (for example, skin cells) while the chromosome gonosom are in the sex cells (ie sperm and ovum in mammals). This understanding does not correspond to reality because the two chromosomes is present in all body cells and sex cells, both individual male and female individuals. According Corebima (1997) is an autosomal chromosome soma chromosome that expresses certain qualities and there are in all individuals both male and female. While chromosomes are existenced gonosom distinguish individual males and females. Dikmenli (2011) revealed that the student teachers are alternative conceptions or misconceptions about genes, DNA and chromosomes. The student also has difficulty connecting genetic material that has been studied first at the molecular level.

Genetics of Mendel

The research found that student in general (85%) understands about Mendel's laws only on the intersection of peas while other individuals that reproduce sexually through with Mendel's laws. The results showed that the students generally cannot distinguish Mendel's laws I and II. Students understand if the laws of Mendel I only learn about monohybrid cross II while Mendel's laws only learn about dihydric cross. Should be understood that in all good crosses monohybrid, dihydric, and polihibrid or crossbreeding with many different properties always occur Mendel's laws I and II.

According to Sugiharto (2008) law of Mendel I should be understood as the separation of genes the same allele freely during meiosis gamete cell formation. It is easily observed in monohybrid cross, but that does not mean the law is only happening on monohybrid cross alone. Mendel's Law II often known as free assorts law should be understood as events incorporation of genes that do not one allele there by completing the genetic information in a cell gametes. According Suparno (2005) the incompleteness of the information received by the students

caused by the students themselves to be one of the causes of misconceptions. Reasoning that one also happens to matter determines the ratio of crossbred Mendel wrong interpreted as a 'number of offspring' is produced is not a 'possibility'. Corebima (1997b) revealed that during the experiments, strains were crossed by J. G. Mendel to obtain second generation (F2). The characteristics that appear recorded the frequency so that the proportion of these traits can be revealed. The efforts eventually allow the identification of the legal separation of the free and the free choice of law. The moment of legal separation of the free and the free choice of law known as Mendel's laws I and II.

Chromosomal Mutation

In general (90%) students understand that the mutation is a disease caused by a virus or bacteria and can cause genetic changes that can be passed on to offspring. Actually, it is understood that the presence of mutant genes, the population will be high heterozygosity. Mutants will evolve, mutants that match its environment be adaptive. Mutants that do not match will be extinct. The species containing the mutant gene weak are eliminated and replaced with the mutant gene species suitable. According Warianto (2011) mutations are changes in the genetic material of an organism that occurs suddenly, random, and are the basis for living organisms' source of variation that is inherited (heritable). Mutations can also be interpreted as a change in the composition of the genome of a structural or bodies that may occur due to external factors (mutagens) or due to replication errors.

Many students understand if gene changes then also change the nature of a living creature. Of course the statement is not appropriate because of changes in the genes is not always followed by changes in the nature of living things. The term includes changes in the genetic mutation or recombination. Changes in the gene in genetics called gene mutation. There are two terms that neutral mutations and mutations silent mutations. Neutral mutation is a change of base pairs associated with the occurrence of a change in the genetic code, and can cause amino acid changes associated, but not to lead to changes in protein function (Russel, 1992 in Corebima, 2000); Silent mutations is a type of neutral mutations who undergo a change of base pairs in the gene that cause changes in the genetic code, but does not result in a change / change of amino acid encoded. In this case both the genetic code and the genetic code of the original mutant alike encode the same amino acid (Russel, 1992 in Corebima, 2000).

DNA manipulation

About responding on DNA technology, 85% of the students considered that it is a DNA recombination between DNA combine with each other to produce new DNA. It is certainly wrong because recombinant DNA is recombinant DNA techniques or genetic engineering to produce new properties by means of a specific gene recombination with genomic DNA. Recombinant DNA techniques are a collection intended for recombining genes in a test tube. Recombinant DNA techniques include isolation of DNA, DNA cutting techniques, DNA merge techniques and techniques to insert DNA into living cells.

Students responded (90%) that the transfer of DNA from one bacterium to another bacterium can only be done with the division; this certainly is wrong because the process of transfer of DNA from one bacterium to another bacterium can be done in three ways: conjugation, transformation and transduction. DNA into the bacterial cells can then be integrated with chromosomal DNA or recombinant bacteria to form chromosomes. Conjugation is the transfer of DNA from one cell (donor cell) into the bacterial cell (cell reserpine) through physical contact between the two cells. Transformation is a collection of DNA by bacteria from

the environment around him. DNA to be around bacteria (foreign DNA) may be pieces of DNA or DNA fragment derived from another bacterial cell or organism to another. The influx of environmental DNA into bacterial cells can occur naturally. Transduction is how to transfer DNA from one cell into another cell through the intermediary of bacteriophages. Some types of viruses multiply in bacterial cells. Viruses that its host is a bacterium often called bacteriophage or phage. When a virus infects bacteria, phage inserts its DNA into bacterial cells. The DNA will then be replicated in a bacterial cell or integrates with the chromosome bacteria. Phage DNA is packaged when forming a new phage particles will carry most of its host bacterial DNA. Furthermore, if the phage infects another bacterium, the phage will insert DNA that contains most of the previous host cell DNA.

In general (80%) students understand that DNA recombination was helpful to get new varieties of course this misconception because DNA recombination can also be used for the production of vaccines, insulin, antibodies, Factor IX for hemophilia B, human growth hormone (HGH), erythropoietin (epo) to treat anemia, certain types of interferon's, several interleukins, parathyroid hormone, monoclonal antibodies, hepatitis B surface antigen for vaccination against hepatitis B virus, and C1 inhibitor (c1inh). The misconception according to Hasan (1999) happens to students when the level of confidence (certainty) high student to a concept which was considered wrong. Interpretation of situations by the students of the environment can be different from the scientific conception that interferes with student learning. The extent possible misconceptions eliminated in the process of conceptual change.

Cognitive development of students who are not in accordance with the concept being studied also can lead to misconceptions in students. Because another misconception comes from the students is limited reasoning and one student, the student's ability to capture and understand the concepts being studied, as well as the interest of students to learn the concepts being (Pure, 2013).

Determination of sex and allelic

In general, students have misconceptions on the concept of sex determination and allelic. Not only is the definition of an elusive but also the differences among them not well understood. According to Corebima (1997a) sexing is grouped on the concept of expression or genetic material work, which included the phenotypic expression sub concepts living beings. Classification of blood, if examined from their allelic caused by mutations that should belong to the concept of change in the genetic material, namely sub concepts mutation. Classification of blood is reviewed of the structure of the mutated gene should then be grouped on the concept of genetic material such as DNA sub concepts structure or the structure of genes.

Study of sex determination has been only discussed sex determination in eukaryotic groups that reproduce sexually. Studies need to be developed in the other group includes prokaryotic, eukaryotic (in eukaryotic plants, invertebrates and vertebrates). Sex determinant gene expression is a gene that could be in the sex chromosomes, the chromosomes of the body or both. So who is responsible for the phenotypic sex is the gene. Gender expression is unique to each group or cannot be applied to all groups of living things (Corebima, 2004).

In addition Corebima (2004) stated genders in prokaryotes such as *e. coli* males and females are known from the factor F or HFR. In Chlamydomonas was known Invertebrates gender valence properties virility and female. Gender in the earthworm was known helix hermaphrodite. Gender in fly Drosophila melanogaster was known male, female, male super, intersex and female super because the balance of chromosomes. Gender vertebrate animals for example pisces quite varied there are hermaphrodites, gonochoristic sexology type, the type of

sex chromosomal expression. Gender in humans was known as male, female, female super to male super due to a change in chromosomes fail to separate as a result.

Population Genetics and Evolution

Students in general (85%) responded that population genetics is the study of the genetics of a population living creature. Of course this is wrong because of population genetics is a field of biology that studies the genetic composition of a population biology, and changes in the genetic composition resulting from the influence of various factors, including natural selection. Population genetics is closely tied to the study of evolution and natural selection, and is often regarded as the theoretical basis of modern Darwinism. Because of natural selection is one of the most important factors that could affect the genetic composition of a population.

In answering the question in general, the students answered a living creature must adapt to the environment in order to survive and not conflict with other living beings. It is certainly wrong should be understood that living things according to their environment will survive. If his condition does not fit or do not have the ability to adapt to the environment it will be extinct creatures. Tekkaya (2002) suggested that teachers at the school one of the causes of misconceptions which greatly affect the student's conception further.

CONCLUSION

The concept of genetics is still not properly understood by the students of Biology Education at STKIP Persada Khatulistiwa Sintang. There are several concepts that are found miskonsepsinya namely; the scope of which includes the understanding of genetics, genetic material which includes DNA, RNA, genes, chromosomes, homologous chromosomes, autosomal chromosomes and chromosome gonosom. Genetics of Mendel which is including of understanding genetics of Mendel, Mendel I and Mendel II, monohybrid, dihybrid and polihibrid. Chromosome mutation which includes: the definition of mutations and mutations cause itself. Manipulation of DNA that includes the definition of DNA recombination, DNA transfer and DNA recombination benefits: determination of sex and allelic: population genetics and evolution include: definition of population genetics, lifestyle and maintain their offspring.

Suggestion

Necessary to study the causes of misconceptions in high school students and students in universities, as well as the need to conduct research experiments to correct misconceptions that often occurs in Schools and Universities.

REFERENCES

Berg EVD. 2004. *Alternative Conceptions in Physics and Remediation*. Philippines:Science and Mathematics Education Institute University of San Carlos.

Chattopadhyay, A. 2005. Understanding of Genetic Information in Higher Secondary Students in Northeast India and the Implications for Genetic Education. Cellbiol Educ, 4(1):97-104.

Corebima, D. 1997. *Penentuan Jenis Kelamin pada Makhluk Hidup.* Surabaya: Airlangga University Press

Corebima, D. 2009. *Pengelaman Berupaya Menjadi Guru Profesional*. Makalah Disajikan Dalam Pidato Pengukuhan Guru Besar dalam Bidang Genetika. Fakultas MIPA Universitas Negeri Malang

Corebima, D. 2010. *Pendekatan Baru Genetika dari Pendekatan Sejarah ke Pendekatan Konsep***.** Disajikan pada Seminar Nasional MIPA Universitas Negeri Malang 13 Oktober 2010

Dikmenli, M., Cardak O., Kiray, S.A. 2011. Science Student Teachers' Ideas aboutthe 'Gene' Concept. *Procedia Social and Behavioral Sciences*. (15):2609–2613.

Hasan, S., Bagayoko, D., dan Kelley, E.L. 1999. Misconceptions and the Certainty of Response Index (CRI). Phys.Educ.34 295: [online]. Tersedia: http://iopscience.iop.org/0031-9120/34/5/304 [15Maret2014].

Murni, D. 2013. Identifikasi Miskonsepsi Mahasiswa Pada Konsep Substansi Genetika Menggunakan *Certainty of Response Index* (CRI), *Prosiding Semirata FMIPA Universitas Lampung, 2013,* diakses 07 November 2016.

Shaw, K.R.M. 2008. Essay Contest Reveals Misconceptions of High School Students in Genetics Content. *Genetics*, 178 (3): 1157-1168.

Sugiharto. 2008. Miskonsepsi biologi dalam pembelajaran kita, (http://bowo.staff.fikip.uns.ac.id/2008/09/19/miskonsepsi biologi dalam pembelajaran kita/ diakses 20 Desember 2014

Suparno, P. 2005. *Miskonsepsi dan Perubahan Konsep Pendidikan Fisika*. Jakarta:Agrasindo.

Tekkaya, C. 2002. Misconceptions As Barrier To Understanding Biology. *Journal of Education*. (23):259-266.

Venville & Treagust. 2002. Teaching about the Gene in the Genetic Information Age. *Australian Science Teachers Journal*. Juli 2014.

Warianto, C. 2011. Mutasi. http://skp.unair.ac.id/repository/Guru-Indonesia/Mutasi_ChaidarWarianto_17.pdf, diakses 18 Oktober 2016.

Effect of Problem Based Learning Strategy Versus Expository Learning Strategy and Motivation Toward Student Achievement Lesson in Social Studies

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Abstract: The purpose of this study was to determine (1) whether there is any difference in learning achievement between students who learn to use problem-based learning strategy with the ones who use the expository teaching strategy on Social Studies, (2). whether there is any difference in learning achievement between the students who have high motivation to learn with those having low learning motivation in learning social sciences, (3) whether there is interaction between the use of the two strategies of learning (PBL and expository) and the level of learning motivation on student achievement in social sciences. This study used a 2x2 factorial design. Subjects of the study involved 64 dementary grade students, devided into two groups consisting of 32 students as experimental group and 32 students as control group. The study was conducted in Social Studies. Data collection is done directly at the time of the research activities carried out. Data analysis was performed through the stages (1) description of data, (2) Test assumptions, and (3) test research hypotheses, which was done by using ANOVA statistical analysis of two way (2x2). The results showed: 1) there are effect used learning strategies for learning achievement sig .002 <0.05 with problem-based learning strategies are more effective than expository strategy, based on the mean problem-based learning strategies has 70.80 and 67.63for expository strategy. 2) there are effect with student motivation on student learning achievement where sig .000> 0.05. 3) there is no interaction between the learning strategies and learning motivation on learning achievement, where the results of the analysis showed sig .096> 0.05.

Keywords: problem based learning, expository strategies, motivation, student achievement.

Learning is an activity of educative value in which there is interaction between teachers students involving the components of goals/objectives, learning materials, process, and learning evaluation. The component of learning process should be more emphasized as through such process students are expected to experience change that is from not knowing to knowing, from not being able to being able. Success of learning essentially indicates success in gaining learning objectives and success in giving learning materials as well, and is shown directly in the possession of knowledge by the students. In elementary school level, learning success is still dominated by teacher's role in learning process. The more creative an elementary school teacher is the bigger is the chance of obtaining learning objectives as well competence in students.

Learning process for Social Science in elementary school has been so focused on mastery of as many units of materials as possible that the learning process becomes rigid and linear without giving space for students to be active and explorative. Learning signature is mostly shown by memorization culture rather than critical thinking. This has rendered students unable to apply basic concepts of Social Science materials in real life.

Social Science learning at school is influenced by the need of having satisfying final evaluation score. Not only affecting students' behavior i.e. only doing memorization, this has also impacted negatively on teacher's teaching method, school policy, and parents expectation, which is based only on quantitative scores. Teachers tend to approach the students in the ways of expository learning strategy, which comprises of one way lecturing and mastery of materials.

Social Science learning functions basically to improve knowledge, values, critical thinking, social senstitivity, social attitude, and student's social skill in observing and analyzing social phenomena in daily life, as well as to grow healthy pride and love on the development of Indonesian people from the past until today. Meanwhile, the objectives of Social Science learning at school is to make the students able to develop knowledge, values, critical thinking, social sensitivity, and social attitude as well as social skill that are useful for himself; and also to improve understanding on the development of Indonesian people from the past until today so that students are proud to be Indonesian. (Sapriya, 2007).

In improving the quality of Social Science learning in elementary school, perfection of learning that is essentially in conform to the objectives and nature of Social Science is needed. Social Science learning should create conditions where students can optimally develop their abilities to think and create. Creativity is developed in order to gain the opportunity to apply knowledge in solving problems that they face. Initial questions that teachers ask to determine how far students grasp and are able to explain concepts of Social Science based on their experiences. This can be a ground for teachers in sharing new experiences so that students understanding are in line with correct Social Science concepts.

One of relevant strategies in Social Science learning is Problem Based Learning (PBL). It is because 1) PBL encourages cooperation and finishing of the task collectively; 2) PBL encourages observation and dialogue with others so that students can conduct observation in phases based on the rules given; 3) PBL connects students in choosing investigations that enable them to make interpretations and explain a phenomenon and construct their understanding about the phenomenon at hand (Arends, 2012; Eggen & Kauchak, 2012). As Social Science requires cooperation, explaining phenomenon, and problem solving, therefore, PBL is suitable for such learning.

PBL is a suitable learning strategy for Social Science learning in elementary school, in which the strategy helps students to think critically and creatively, improve their social sensitivity as outlined by the objectives of Social Science (Eggen & Kauchak, 2012; Rusman, 2010; Tan, 2003). This strategy trains students to face and solve problem skillfully, increase knowledge and learning motivation, and stimulate the development of creative and holistic thinking, as in such learning process they are asked to do a lot of mental process by observing contextual problems from different context in order to find their solutions (Tan, 2009;Tan, 2003).

One of the components predicted to influence the outcome of Social Science learning is learning motivation. Basically, motivation can be used to understand and explain an individual's behavior, including one who is learning. Motivation in learning can grow desire and intention to have a meaningful learning (Santrock, 2011). Learning activities prepared by teachers are expected to suit the plan and desired objectives. One of the learning objectives is change in behavior i.e. student's scientific attitude and increase in learning achievement. A teacher should not neglect motivation factor that students have. Motivated students will be able to show their creativity intensively during learning in class. The characteristic role of motivation is growing students' desire and making them feel happy and enthusiastic to learn.

Motivation is ethimologically derived from the word 'motive' that can be defined as a moving power inside oneself to conduct certain activities in order to obtain his/her goals. Motivation can also be understood as series of efforts of providing certain conditions that make

someone want to do something including something he/she dislikes by avoiding/eradicating such feeling (Schunk, 2011; Santrock, 2011; SardimanA.M, 2007). Motivation can be stimulated externally but motivation grows in oneself. In learning process, motivation is said to be the whole moving power inside students that initiates, maintains, and directs the learning process in order to achieve the objectives the students are aiming for.

The important roles of motivation in learning can be seen among others in (a) determining supporting factors that strengthen learning; (b) clarifying the objectives of learning ; (c) determining variety of control toward learning stimuli; (d) determine learning perserverance (Santrock, 2011; Slavin, 2006). Motivation comes into play as a learning enchancer when students are faced with a problem that has to be solved, a problem that can only be solved by reflecting on their own experiences. As an example, a student will solve a Social Science problem by the help of Indonesian map. Without the map, the student will not be able to solve the task. This will stimulate the student to find the map, if he/she does not have one. The effort of finding the Indonesian map is a kind of example of how motivation can enhance learning. From this illustration, it can be understood that something can be a learning enhancer for someone if he/she really has the motivation to learn something. In other words, motivation determines what kinds of objects in a student's environment can enhance learning. A teacher needs to understand this so that he/she can help the students in choosing factors or conditions that exist in student's surroundings as learning enhancers.

Expository learning strategy, usually called varied lecturing method, is a way of transferring learning learning materials through oral explanation that is accompanied by other learning methods even though only complementary in nature. In this strategi, learning materials are given directly by teachers while students are not obliged to find the materials themselves. Learning materials are in a certain way fixed. Because expository strategy only emphasizes on oral lecturing, it is named '*chalk and talk'*. This strategy assigns a teacher as the controller of the whole learning process and students as the receiver and listeners of whatever is presented by the teachers (Prayekti, 2016).

Learning with expository strategy is a *teacher centered* learning. In this strategy, teacher actively explains and details his/her learning materials. Dimyati dan Mujiono (2009) says that learning through expository strategy is transferring knowledge, skill, and values to students. Teachers' important roles are i) arranging learning program; ii) giving correct information; iii) good facilities givers; iv) students supervisors in acquiring correct information; v) judges of information acquisition.

Furthermore, it is also explained that students' most important roles in expository learning are 1) seekers of correct information; 2) user of learning media and resources; 3) finishing tasks within the frame of learning evaluation (Eggen & Kauchak, 2012). Learning outcomes are evaluated by the width and quantity of knowledge, skills, and values that students have mastered. In general, the evaluation instrument is a standardized test or test made by the learners.

This research will prove the effect of PBL and expository learning strategies on learning achievement in Social Science subject viewed from students' learning motivation. The reason why these strategies are put into consideration is that based on the explanation above, the writer thinks that PBL in elementary Social Science can essentially help students to easily understand Social Science materials and to use their knowledge in real life. Besides, PBL can decrease teachers' dominance in learning, increase students participation, encourage students to ask, and train them to think critically, as well as increase their social sensitivity. In relation to existing elementary school curriculum, PBL has become strategic and important to students' mastery of basic competence in Social Science. Therefore, a Social Science teacher must master PBL strategy theoretically and practically. Unavoidably, PBL must also be scientifically studied and reviewed in research. Expository, on the other hand, is a conventional strategy that every one is accustomed to in Social Science learning. However, its implementation has not satisfied the

real standards of expository learning. This research experimented on both learning strategies in order to gain conclusion of the effect that each one has on students' learning achievement, which can eventually be a reference to elementary school teachers in designing Social Science materials.

The problems of this research are (1) Is there any difference in achievement between students learning through PBL and those who undergo expository learning process in Social Science learning in elementary schools in Kupang City? (2) Is there any difference in learning achievement between students with high learning motivation and students with low learning motivation in Social Science learning in elementary schools in Kupang City? (3) Is there any interaction between the use of the two learning strategies and learning motivation level on one hand and students' learning achievement in Social Science learning in elementary schools in Kupang City on the other hand?

The aim of this research is to (1) examine whether there is difference in learning achievement between students taught through PBL and those taught through expository in Social Science learning in elementary schools in Kupang City; (2) examine the difference of learning achievements between students with high learning motivation and students with low learning motiviation in Social Science learning in elementary schools in Kupang City; (3) examine whether there is interaction between the use both learning strategies and learning motivation on one hand and students achievemen in Social Science learning in elementary schools in Kupang city on the other hand.

RESEARCH METHOD

Research Design

This research uses quasi-experimental design. Quasi-experimental design is an experiment that is 'less' pure, as the researcher is not fully in control toward all variables that are suspected to influence the dependent variable (learning achievement) (Ardhana.1987; Tuckman, 1999).

Factorial design is used in this experiment. In this factorial design, thare are two categories used is a 2x2 table design.

Table 1 Factorial Experiment 2x2

		Learning Strategy	
		Problem Based Learning	Expository
Learning Motivation	High (HLM)	Y_1	Y_2
	Low (LLM)	Y_3	Y_4

The experiment class that uses PBL will be compared with the control class that is taught in expository manner. Then, the comparison will be associated with students' learning motivation. In the experiment class, any change is observed i.e. the increase or decrease in students' understanding toward Social Science materials after the application of PBL and expository strategies.

Research Subjects

Subjects in this research are 64 semester two elementary schools students of Grade IV in the academic year of 2015/2016 that are divided into two even classes of experiment and control classes (32 students per class).

Research Variables

There are three research variables namely independent variables, dependent variable, and moderator variables. The independent variables are PBL and expository learning strategies; dependent variable is students' learning achievement; and the moderator variables are high and low learning motivation.

Research Procedure

Reseach procedure is a set of steps or phases that the researcher takes in completing the research, as follows:

1. Determining research subjects and divide them in Control Group (Cg) and Experiment Group (Eg).
2. Coordinate and develop PBL instruments in Social Science with teachers. The development of learning instruments for PBL includes development of indicator and learning objectives, instructional analysis, learning materials, lesson plans, learning tools, and learning evaluation system.
3. Identifying learning motivation and students learning achievement (pre-test); this is conducted by using test instruments as can be seen in the appendices.
4. Conducting experiment to Eg and maintain the groups' normality; the Eg is approached by PBL strategy while the Cg the expository strategy.
5. Conducting observation on treatment activities; it is done on activities starting from action planning until the implementation of the plan, both in Eg and Cg.
6. Identifying learning achievements of each students/group (pos-test).
7. Conducting Data Analysis and formulate research findings.

Data collection

Data collection technique is ways that can be used to collect data. There two techniques used in this research i.e. 1) test technique and 2) questionnaire technique. Test is used to collect Social Science learning achievement data. Documentary technique is used to acquire data of semesteral test results in order to examine the equality of Eg and Cg. Questionnaire technique is used to collect data about students' learning motivation.

Data Analysis

Analysis on data is conducted to answer research problems and test reserach hypotheses. In this research statistical analysis used are desciptive analysis and inferential-parametric statistical analysis. Desciptive analysis is conducted to obtain understanding of the object observed through existing data without any treatments whatsoever. There three hypotheses tested in this research, i.e.: (1) There is difference in Social Science learning achievement between students instructed with PBL and those with expository strategy in Grade IV students of GMIT Airnona II and GMIT Airnona I elementary schools; (2) There is difference in Social Science learning achievement between students with high learning motivation and students with low learning motivation in Grade Social Science students of GMIT Airnona II and GMIT Airnona I elementary schools; (3) There is interactive influence between learning stragies of PBL and expository and different learning motivation on students's learning motivation. These hypotheses are test by Two Way Analysis of Variance or ANAVA. Inferential statistical analysis is used to examine (1) normality of data spread using Kolmogorov-Smirnov dan

Shapiro-Wilk; and (2) homogenity of variance between groups using *Levene's test of Equality of Error Variances*. Both analysis are conducted in SPSS version 17.

Research Hypotheses Test

A stastical analysis is usually used to examine whehter a hypotheses is accepted or denied. The collected data are quantitative data, which means they must be analysed by statistical equation. Hypotheses test in this research uses two way ANAWA with F test on the significance level of 5% with the help SPSS.

FINDINGS AND DISCUSSION

Description of Pretest Result

Before given treatment, subjects are pretested in order to determine their initial abilities. The results show students' initial ability.

Table 2 Pretest Data Analysis

Statistics			
		Pretest of PBL Group	Pretest of Expository Group
N	Valid	32	32
	Missing	32	32
Mean		28.3750	25.9688
Std. Error of Mean		1.26184	1.15658
Std. Deviation		7.13804	6.54259
Variance		50.952	42.805
Minimum		14.00	11.00
Maximum		40.00	40.00

Based on the data in Table 4.4., *mean* pretest for the Eg is 28.37 with standard of deviation of 7.13, whereas for the Cg *mean* acquired 25.96 with the standard deviation of 6.54. However, these data cannot be used as a strong foundation for further resarch, so two indepent sample t-test is necessary. The result of this test will show whether there is significant difference between the two classes.

Description of Data of Learning Achievement Posttest

It is found that the learning achievement posttest on both groups shows that the average of posttest result in Eg with high learning motivaton is 74.35, with deviation standard of 5.08 and low learning motivation 67.25 with standard deviation of 3.25. Whereas the average score of Cg with high learning motivation is 72.86, with standard deviation of 3.11 and low learning motivation is 62.41 with standard deviaton of 3.27.

If compared to the pretest result, there is increase in average scores of students in Eg i.e. 43.32, while students in Cg 41,15.

Analysis Condition Test

In order to test the hypotheses, all researched variables are test using two way ANOVA (Two Way Analysis of Variance). Before it is done, analysis condition test is conducted, comprising of normality test and variance homogeneity test.

Research Hypotheses Test

Hypotheses test is a procdure that is done to determine whether the hypotheses proposed earlier are accepted or refused. The analysis condition test has shown that it is feasible to conduct test on the hypotheses . Therefore, further test can be continued. To be more clear, pay attention to the following table.

Table 3 Two Way Anova

Tests of Between-Subjects Effects					
Dependent Variable: Students' Learning Achievement posttest					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1555.349[a]	3	518.450	34.010	.000
Intercept	296192.800	1	296192.800	1.943E4	.000
Learning Strategy	154.400	1	154.400	10.128	.002
Learning_Motivation	1190.675	1	1190.675	78.107	.000
Learning Strategy* Learning_Motivation	43.487	1	43.487	2.853	.096
Error	914.651	60	15.244		
Total	311606.000	64			
Corrected Total	2470.000	63			
a. R Squared = .630 (Adjusted R Squared = .611)					

Effect test between subjects is used to see the influence of independent variables and dependent variable and their interactions. This test is conducted to prove the hypotheses of this research. Based on the data in Table 4.9, hypotheses based analysis is as follows:

The Effect of Learning Strategies on Social Science Learning Objectives

Based on the results, it can be seen that the average score of students learning in PBL setting is 28.3750 at pretest and becomes 71.6875 at posttest, which means that there is increase of 43.3125. Whereas, the average score of students of expository group is 25.9688 at pretest and becomes 67.1250 at posttest—there is increase of 41.1562. These numbers is then analysed with variance analysis showing F=10.128 with p=.002 ($p<0.05$). Therefore, it can be said that PBL strategy gives better effect than expository strategy on Social Science learning achievement.

Based on that fact, theoretically PBL strategy has more positive effect on increasing students learning achievement in Social Science learning than expository strategy does. PBL

strategy in classrom means learning is conducted by giving students chances to discuss problems, think critically, and solve problems based on determined indicators. This is in line with previous research by De Grave, Boishuizen dan Schmidt (1996) stating that there is cognitive improvement in students in problem analysis step of PBL.

The explanation research result above affirms that PBL can better influence learning outcomes compared with expository learning strategy. This finding is also in conform to various opinions on the use of PBL in learning activities, among others is Newby, (2000) who proposes that the excellence of PBL is : (1) improve understanding and retention as students are obliged to solve daily living problems by implementing theories and practices; (2) involve high level of learning; (3) give students opportunity to study from mistakes; and (4) build responsibility in students so that they can learn to thinks freely. Through PBL, students have the opportunity to conduct problem based praxis, self evaluation, group skills, critical thinking, and oral and written communication as well.

Based on the review, a statement is made that is if a learning in conducted a la PBL learning outcomes as seen in students' learning achievement will increase, especially in understading abstract and problem based concepts. Therefore, in order for the students to increase their learning achievement, learning design should be problem based so that it can answer students' need of increasing their learning achievement.

The Effect of Learning Motivation Level on Social Science Learning Achievement

Results show that students who have high learning motivation acquire the gap of 8.77 from students with low level of learning motivation. Analysis shows that the average learning outcomes of students with high level motivation is 73.60, whereas students with low learning motivation 64.83. These numbers are then analysed by variance analysis test, showing that *F count* of students' learning motivation is 78.10 with *p-value* 0.00. If this significance value is compared to probability value of 0.05, it is lower *(p-value<0.05)* so it can be concluded that there is difference in learning achievement between students with high learning motivation and those with low learning motivation. In other words, students having high learning motivation will have better learning achievement than those with low level of motivation.

This proves that students with high learning motivation and low learning motivation have different learning achievements. This condition shows that grouping the students based on high-low level of learning motivation is sufficiently effective to see the influence of certain learning model.

Based on that, it can be theoretically discussed that students with high learning motivation have achievement driven energy i.e.mastering, organizing social and physical environment, overcoming obstacles, and maintaining high learning quality, competing with excellence standards. The excellence standards can be others' achievements but can also be their own previous achievements or perfection of the task at hand.

Learning outcome in their various forms besides influenced by the method variable, are also influence by condition variable, i.e. students's characteristics and subject's characteristics (Degeng, 1999). Students' characteristics are individual aspects or qualities such as talent, interest, motivation, goal orientation, intelligence, acquired learning outcomes, and so on that influence process and results of learning.

The explanation above affirms that if learning is conducted by putting into consideration students' motivation, learning achievement will increase especially in receiving, thinking, processing and storing information, solving problems, and making learning activities dynamic and fun. Therefore, in order for the learning outcomes to increase in the forms of knowledge,

attitude, and skill, it is important to design learning instruments by taking into account students' learning motivation.

Interaction between Learning Strategies and Learning Motivation on Social Science Learning Achievement

Based on analysis and description of data, it is concluded that there is not any interaction between the learning strategies and learning motivation on Social Science learning achievement. This is proved in hypotheses test that results in accepting H_0 in the significance level of α=0.05. From Table 4.9., it can be seen that *F count* value of interaction statistical test acquires 2.853 with significance value of 0.096. This significance value is bigger than 0.05 (.096>0.05), so it can be concluded that there is not any interaction between the learning strategies and learning motivation viewed from students' learning achievement.

Such result is cumulative contribution. The cumulative contribution is not as big as either learning stragies variable contribution or learning motivation variable if analyzed partially. This is because interaction between learning strategies and learning motivation can influence differently in different individuals, or in other words, combined contributions of learning strategies and learning motivation do not give different effect on each individual student. This result is also supported by earlier research that was conducted by Tegeh (2010) indicating that there is no significant interactive effect of learning models and learning motivation on students' learning achievement. Additionally, a research by Mufidah (2012) on the influence of learning strategies and learning motivation on Grade V elementary school students' understanding of Social Science materials shows that there is not any interaction between the use of learning strategies and learning motivation.

Insignifance of interaction between learning strategies and learning motivation on the scores of students' learning achievement as found by this research is suspectedly caused by (1) students characteristic of being accustomed to *'drill'* pattern and memorization; (2) characteristics of subject; (3) characteristic and behavior of teachers in learning (Huitt's model), and (4) the period of research that was not longer.

PBL's excellence can be seen from its ability to increase students' knowledge while at the same time encourage problem based skill development, critical thinking, collaboration, independent learning, communication, improve motivation and students' learning activity, as well as making learning active and enjoyable.

CONCLUSION

Based on the findings and discussions above, the conclusions can be drawn as follows: 1) There is difference in learning achievement between students taught in the PBL setting and those taught in expository setting, with significance value of 5%, F= 10.128, p = 0,002, which is below 5% or 0,05 (p < 0.05). Therefore, it can be said that Social Science learning with PBL strategy produces better learning achievement than expository strategy; 2) There is difference in learning achievement between students with high level of learning motivation and those with low level of learning motivation, with significance level of 5%, F= 78.107 is acquired and p = 0,00, which is below 0.05(p < 0.05. Therefore, it can be concluded that students who have hig level of learning motivation achieve better than students with low level motivation; 3)

There is not any interaction between learning strategies (PBL and expository) and learning motivation on students' learning achievement, with the significance level of 5%, F = 2.853 and p = 0.096, which is bigger than 0,05 (p < 0,05). It is, however, descriptively found that

even with high or low level of learning motivation, PBL still scores better than when students study in expository setting.

Suggestions

Based on the conclusion above, suggestions are formulated as follows: (1) Learning achievement results, both in quality and quantity, is effectively influence by learning strategy. Therefore, teachers must absolutely posses the ability of choosing and applying appropriate learning strategy must. The development of teacher's ability, skill, and creativity in choosing and implementing learning strategies should always be conducted both independently and institutionally. (2) Correct implementation of PBL requires support of certain prerequisites, such as teachers' ability and students' preparedness as well as learning situation and condition that enables learning process that is characterized by problem based learning. Therefore, it is necessary to take into consideration students' condition in choosing and implementing learning activities. (3) There is no significant interaction between PBL learning strategy and learning motivation toward students learning achievement. But, this does not mean that there is not any influence at all. Descriptive data show that this is true. Both variables should be considered in choosing and implementing learning activities. It means that the choice of learning strategy must be one that can improve students' learning motivation and be based on students' characteristics and conditions that haven't been answered by this research. (4) The findings of this research can be made use by learning practitioners in developing learning activities that not only is able to increase learning outcomes but is also able to improve other abilities that students have, such as communicating, grouping and solving problems, and improve their characters as well. (5) Based on the findings of this research, it is important that further research into this matter be conducted in the form of learning component development that aims to wholly improve students' learning achievement, especially in Social Science. (6) The findings of this research can be acted upon by conducting research on learning activities that is oriented not only in improving knowledge but also in developing students' other abilities, such as communicating, grouping, solving problems. (7) The findings of this research can be acted upon by conducting further research on the use of Problem Based Learning strategy in other subjects, as well as in profession level of education.

REFERENCES

Ardhana, W. 1987.*Bacaan Pilihan dalam Metode Penelitian Pendidikan.*Jakarta; Depdikbud.

Arends. R, I. 2012. *Learning to Teach 9th Edition*. New York: Mc Graw Hill.

De Grave, W.S., Boshuizen, H.P.A., Schmidt, H.G. 1996. Problem Based Learning: Cognitive and Metacognitive During Problem Analysis. *Instructional Science*. vol. 24, pp. 321-341. Netherlands: Kluwer Academic Publisher.

Dimyati, M., Mudjiono. 2009. *Belajar dan Pembelajaran*. Jakarta: PT. Rineka Cipta.

Degeng, N.S. 1999. *Peran Teknologi Pembelajaran di Era Kesemrawutan Global.*Makalah Seminar Teknologi Pembelajaran 26 September 1999 di STKIP Singaraja, Bali.

Eggen. P., Kauchak. D., 2012. *Strategies and Models for Teachers: Teaching Content and Thinking Skill, Sixth Edition*. Terjemahan oleh Wahono S. 2012. Jakarta: Indeks.

Gagne. R.M., Wager. W.W., Golas. K.C., Keller. J.M., 2005. *Principles of Instuctional Design Fifth Edition*. California: Wadsworth

Mufidah. 2012. *Pengaruh Strategi Pembelajaran dan Motivasi Belajar terhadap Pemahaman IPS Siswa Kelas V Sekolah Dasar*.Disertasi.Tidak diterbitkan. Malang: PPS UM.

Newby, T.J., Stepich, D.A., Lehman, J.D., Russekk, J.D. 2000. *Instructional Technology Teaching and Learning: Designing Instruction, Integrating Computers, and Using Media.* Mahwah, New Jersey: Prentice-Hall, Inc.

Prayekti. 2016. Effect of Experiment Learning Strategy versus Expository and Cognitive Style for Psysical Learning Result for Senior High School Student at Class XI of Senior High School. *Journal of Education and Practice* vol. 7, no.12.

Reigeluth. C.M., Carr-Cheliman. A.A., 2009. *Instructional Design Theories and Models Volume III*. New York & London: Routledge.

Rusman. 2010. *Model-Model Pembelajaran*: *Mengembangkan Profesionalisme Guru*. Jakarta: Rajawali Pers.

Santoso, S. 2004. Buku latihan SPSS statistik multivariat. Jakarta : Elex Media Komputindo.

Santrock, J.W. 2011. *Educational Psychology Fifth Edition*. New York: McGraw Hill

Sapriya. 2007. *Pengembangan Pendidikan IPS di SD*. Bandung: UPI Press.

Sardiman A.M, 2004. *Interaksi dan Motivasi Belajar Mengajar*.Jakarta: PT Raja Grafindo Persada

Sardiman A.M, 2007. *Interaksi dan Motivasi Belajar Mengajar*.Jakarta: PT Raja Grafindo Persada

Schunk. D.H., 2012. *Learning Theories: An Educational Perspectivesixth edition*. Boston: Pearson.

Slavin, R.E., 2006.*Educational Psychology Theory and PracticeEighth Edition*. New York: Pearson.

Tan, O.S. 2003. *Problem Based learning Inovation: Using Problems to Power Learning in the 21st Century*. Singapore: Gale.

Tan, O.S. 2009. *Problem Based Learning and Creativity*. Singapore: Gale.

Tegeh, M. 2009. Perbandingan Prestasi Belajar Mahasiswa yang diajar dengan menggunakan Problem Based Learning dan Ekspositori yang Memiliki Gaya Kognitif Berbeda.Disertasi.Tidak diterbitkan. Malang: PPs UM.

The Effects of Political Instability on International Business and Investments in Freetown Since 1991 To 2007

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Abstract: This research explains how political instability affected International business investments in Freetown the capital city of Sierra Leone since 1991-2007. There were a lot of International businesses and Investments in Freetown, but due to the instability faced by the country most of those Investments were affected and closed and it led to the collapse of the country's economy and it affected other developments like education, Infrastructure, agriculture and medical. The purpose of this paper is to explain how Political Instability affected business continuing strategies and plans, a lot of businesses where unable to continue, both international and local businesses due to the instability in the country especially the ten (10) years civil war, the country was unsafe for business and investments. It also affected inconsistencies in supply chain, sales and distribution. And it affected the safety of human and materials resources in organizations and affected the expansion vision of International Business in the country and those that intended to invest. In this research a qualitative descriptive approach, phenomenology was recommended which focuses on how political instability effected international business investment in Freetown, by the use of documentations and observations. The findings can also been drawn from the background of the Instability in the country, focusing on the capital city Freetown and its effects on International businesses and investments in Freetown. This article will provide significant conclusions and recommendations to governments, feature researchers, Industries, companies, International business and global markets.

Keywords: political instability, international businesses

Sierra Leonean political history has been identified as one of the precursors of the Sierra Leone civil war (Adim, 2012). Since Independence, the politics of Sierra Leone has been marked by corruption, political assassination, mismanagement and electoral malpractices. The culmination of these factors led to the civil war. This affected the capital city Freetown, which has all the key government and business offices. In discussing about the Instability in Freetown, we start by focusing on how the political system in Sierra Leone started. On the 27th April 1961, Sir Milton Margai led Sierra Leone to Independence from Great Britain and became the country`s first Prime Minister. In May 1962 Sierra Leone held its first general elections as an Independent nation. The Sierra Leone Peoples Party (SLPP) won the plurality of seats in parliament and Sir Milton was reelected as Prime Minister (Pham & Peter 2005; McKenna & Amy, 2011). The years just after independence were prosperous with money from mineral resources being used for development and the founding of Njala University (McKenna & Amy 2011). Upon Sir Milton`s death in 1964, his brother Albert Margai, was appointed as Prime Minister by parliament. Unlike his late brother Sir Milton, Sir Albert proved unpopular and resorted to increasingly authoritarian actions in response to protests including enacted several laws against the opposition All Peoples Congress (APC) and attempting to establish a one-party state.

In 1967, Sierra Leone has it first democratic elections and Steven was sworn in as Prime Minister on March 21, 1967 of All Peoples Congress (APC). Within hours after taking office,

Stevens was under military coup led by Brigadier General David Lansana a commander of the army and a close ally of Sir Albert Margai who had appointed him to the position in 1964. He placed Stavens under house arrest in the capital Freetown. On March 23, 1967 Brigadier Anrew Juxon-Smith overrode this action by seizing control of the government, arresting Brigadier Lansana and suspending the constitution. Brigadier Anrew Juxon-Simth was also arrested and overthrow in April 1968 by Brigadier General John Amadu Bangura with his Anti-corruption Revolutionary Movement. The democratic constitution was restored, and power was handed back to Stevens, who at last assumed the office of Prime Minister (Gberie, Lansana 2005). These two Military coup (1967-1968), really destabilized the growth and development of business in the country within that period. Because the country was unsafe, full of military and the constitution was suspended which means there is no proper control in the state.

Stevens assumed power in 1968 with a great deal of hope and ambition. Much trust was placed open him as a championed multi-party politics. Some of these policies made by the pervious party Sierra Leones Party (SLPP) were said to have left the country in an economically deprived state.

The political system which was based on transparency and democracy and the rule of law no longer trusted by the people under Stevens rule, because it was no longer seen as meaningful political system. Steven transformed the already weak democracy into a one party political system, which give him power to further corrupt the entire public institution. This frustrated other political opponents and fled the country, this leading to some extent the beginning of the long civil war that destabilized the entire country.

Steven was highly corrupt and mismanaged the economy of the country, even made the already weaken state system completely collapse. Sierra Leone blessed with natural endowments including diamonds; one of the most resourced rich countries in Africa remain one of the poorest in the world. The country`s main source of income has been mineral deposit particularly diamond (Davies, 2000) this attracted a lot of international investments in the country most in the mining and agriculture sector. Steven and his Sierra Leone-born Lebanese partner, Jamil Said Mohammed, gained control of 'the state diamond marketing monopoly in 1976 in a bogus privatization exercise', enabling them to earn up to 300 million dollars (at 2001 prices) in diamond revenues. Not being satisfied, Stevens extended his privatization projects to 'state agencies for agricultural marketing, road transport, and oil refining' (Reno 2003b, p. 56). Instead of leading to an efficient and competitive market, though, the privatization process under the leadership of Stevens merely contributed to increasing his own fortune as well as his key political allies' wealth, 'by using government control over import/export licenses and over the allocation of foreign exchange to favor his own clients' (Keen 2003, p. 75).

In 1985 Steven gave power to Major General Saidu Momoh, under an undemocratic transition of power. J.S Momoh also did not able to manage the economy, he was given a broken economy. The situation went worse with government being almost bankrupt, it become impossible to pay most civil servants (Reno 2003a). But Momoh attempted to restore democracy, but unfortunately his efforts were aborted by the outbreak of the civil war in 1991 and a subsequent Military coup in 1992 by Valentine Strasser. This is one reason that led to the civil war, mismanagement of state economy.

The civil war started on 23rd March 1991, by the Revolutionary United Front (RUF). The civil war lasted for ten years and during that ten years the country faced two more Coup d'états on the 16th January, 1996 Julius Maada Bio overthrows Valentine Strasser and on 5th May, 1997 Johnny Paul Koroma overthrows Ahmed Tejen Kabbah.

The causes of civil war by Collier (2000, pp. 91 & 96) claims the "conflicts are for more likely to be caused by economic opportunities than by grievance". Mismanagement, bad governance, Nepotism, Tribalism and high level corruption are the political causes.

Economically, "Greed" low per capital income, bad trade policies, mismanagement of natural resources especially diamonds and poor distribution of resources. Civil war affected all aspect of development, education, infrastructure, agriculture, medical and the economy.

This paper explains the economic effects of the instability in Freetown, on International businesses and Investments. How political instability effected business continuing strategies and plans, Inconsistencies in supply chain, sales and distribution, Safety of human and materials resources in organizations and affected the expansion vision of International Businesses.

It also explains the methodology used in gathering information, a qualitative descriptive approach, phenomenology was recommended which focuses on how political instability effected international business investment in Freetown.

Furthermore, this paper will give significant conclusion, solutions and recommendations that will be of importance to government, industries, feature researchers, industries, companies, international businesses and global market.

THEORETICAL AND EMPIRICAL REVIEW

Harvard University, 2012, Political Instability and Economic growth define political instability as the propensity of a government collapse, and we estimate a model in which political instability and economic growth are jointly determined. According to the political theories of Max Weber, political stability depends on the government's legitimate use of physical force. If the government cannot ensure the basic services it provides for peoples, such as security and the possibility of procuring food and shelter, it loses the power to enforce laws and political instability ensues. Political instability is associated with the concept of a failed state

Political Instability is regarded as a Serious Malaise harmful to economic performance. Political Instability is likely to shorten policy makers' horizomes leading to suboptimal short term macroeconomic policies. (Ari Aisen and Francisco Jose Veigo, IMF Working paper).Income inequality, by fueling social discontent, increases socio-political instability. The letter, by creating uncertainty in the political-economic environment, reduces investment (Alesina & Peotti, 1995). Azzimanti and Sarte, 2007 was making barriers to Foreign Direct Investment under Political Instability.

This paper explains how political instability affected international businesses and investments in Freetown since 1991-2002, in relation to relevant literature mentioned above. It explains it effects on business continuing strategies and plans, Inconsistencies in supply chain, sales and distribution, Safety of human and materials resource in organization and its effect on business expansion vision. Those theories gives linkages of political instability, on economic growth, income distribution and investment and how it become barrier to foreign direct investment.

METHODS

The methods of analysis are qualitative descriptive approach, and phenomenology focusing on how political instability affected international businesses and investments in Freetown, the capital city of Sierra Leone since 1991-2007 and down to the background of Sierra Leone's political system since after independent from the British to the first political government in 1967, the management of the governance by ruling governments, opposition, coup d'état, civil war and the fall of the economy.

A phenomenological method was employed in analyzing the research, in phenomenology the researcher transcends or suspends past knowledge and experience to understand a

phenomenon at a deeper level (Pouty, 1956). It is an attempt to approach alives experience with a sense of "Newness" to elicit rich and descriptive data (Pouty, 1956).

Also the researcher is a complete participant, the researcher is completely integrated in the population studied, a member of the population.

Location

Research location, is focusing on Freetown the capital city of Sierra Leone. Freetown is the largest city in Sierra Leone, it is a major port city on the Atlantic Ocean and it is located in the Western Area of the country. Freetown is Sierra Leone's major urban, economic, financial, cultural, educational and political center. The city is a total 357 km (138 sq. mil) elevation 26m (85ft), the city's economy revolves largely around its harbor, which occupies a part the estuary of the Sierra Leone River in one of the world's largest natural deep water harbors

Population

The population of Freetown is about 802,639, and it is ethnically, culturally, and religiously diverse. As in virtually all part of Sierra Leone, the "krio" language is Freetown's primary language of communication. The city is locally governed by a directly elected city council municipality, known as the Freetown city council headed by a mayor.

Data Sources

Two main sources are been used in this research, Primary and Secondary sources. Primary source, obtain data from owners of companies and investments, employees consumers and suppliers in Freetown, they provide firsthand information and direct evidences, through oral histories, written records, diaries, eyewitness and physical evidences. Secondary source, we collect data from written reports on Sierra Leone destabilization, civil war, from libraries research journals been written on Sierra Leone political system, civil war and post war. Information about the instability faces by international business and investments, especially in Freetown.

Data Collection

Data collection procedures are been done in two (2) ways: (1) an interview was conducted to former and present owner of business, supplier, consumers, and employees government officials. (2) from documents, using the library to collect data from books, articles, journals, magazines, newspapers, reports and the use of the internet to get more data from journals, report, statements, pictures and videos that are related to the study focus. The researcher is a member of the population studied; uses experienced during the event studied and comprehensively write them down into written form.

Data Analysis

Data analysis, on this research is been done after the collection of data, we transcribed all of the data into written form in order to make it easier to interpreted it. From the transcribed, we only take data that needs to be interpreted. Further to the research findings, on how political instability in Sierra Leone effected International businesses and Investments on business continuing strategies and plans, Inconsistence in supply Chain, Sales and Distribution, Safety

of human and materials resources in organizations and the expansion vision of International Business. Descriptively since was started of the political history of Sierra Leone after Independent in 1961 to 2007. The people involved businesses and investments that were affected by the instability, solutions and a full grounded theory of the research.

FINDINGS

Freetown was seriously affected by the political instability in the country, especially the civil war and the coup d'états in 1996 and 1997. As Freetown is the capital that holds all the main government offices and head offices of businesses in the country, the instability affected all those institutions. During the outbreak of the civil war the main focus of the rebels was Freetown, as the controls the economy of the state, having the central bank, house of parliament, Queue port and all other headquarters.

Through the findings, political instability in Freetown affected International businesses and Investments on continuing strategies and plans, Inconsistence in supply Chain, Sales and Distribution, Safety of human and materials resources in organizations and the expansion vision.

Business was continuing strategies and plans if there is no one thing that business and entrepreneurs hate is instability in the macro environment. All forms of businesses are trying to avoid political instability, because businesses operate according to forecasts and scenarios about the future that comprise surprises as well as certainties. Business continuing strategies and plans were affected, no good business can continue it plans in an unstable business environment as most international businesses were stationed and there headquarters was Freetown.

In March 25th 1991, the civil war breaks out in Sierra Leone around the eastern part of the country by the Revolutionary United Front (RUF) fighters. The civil war was heating the provincial areas of the country, businesses were unable to expand to those regions, because it was unsafe for business operations. Branches of businesses in those regions were forced to close, some of their workers were killed, damaged and facilities were looted and burnt down by the rebels. Businesses and investment like, Toyota, seed multiplication, Western Union, Standard Charted Bank, Union Trust Bank, Koninklijke Luchtvaart Maatschappij (KLM), Afrik Air Link, Mantrac,National Diamond Mining Company (NDMC), China Rail Way, Mercedes Benz, Magbass Sugar Complex Company Limited.

During the change of government by Coup d'état businesses were forced to singed new policies implemented by new regimes, new licenses, International staffs and business owners take new stay permits. This affected business strategies on the relationship between the firms, organizations, and customers in way of expanding. Those businesses had to change their plans and strategies in operations, this led to closure, rioting, and general disorder. Businesses could not meet their targeted profit margins.

On January 6th,1999, finally the rebels entered Freetown and lunched a campaign of terror, vast destruction, looting, killing, raping, burning down of business facilities, which those businesses and investors had spent a lot of money in setting them up. Business owners and investor ran out the country to protect their lives, businesses were on able to continue and plans to expand became unimplemented. Secondly, inconsistencies in supply chain, sales and distribution were also affected. "A set of approaches to efficiently integrate supplies, manufacturers, distributors, warehouses and retail stores so that merchandise is produced and distributed in the right quantities, to the right locations, at the right time in order to minimize system wide cost while satisfying (customers) services level requirements" (Simchi Levi, et al., 2003). There was in inconsistency in supply chain, sales and distribution with international

businesses, businesses like production firms were unable and find it difficult to reach their suppliers in other regions within the country.

Most of those provincial areas were controlled by the rebels (RUF), for most companies to connect with their suppliers and customers was very difficult and risky, and the distribution process of goods and services to the right location, at the right time to meet customer satisfaction was a serious problem, this was an obstacle to supply chain. The chain network was inconsistence and financial flow from customer to suppliers to producers and organizations was unpredictable, most businesses could not meet there profit margins. Most services were coming from the city, as most of the business headquarters are located in the city. Some products from the provinces to the city, like sugar from Magbass Sugar Complex Company Limited in the Northern Province, it was difficult for their products to reach the city and other neighboring countries. Supplying to other neighboring countries (export) was a problem, the main airport was under the control of the rebels, no official flight could come or leave the country, international airlines closed like KLM, Belleview, Afrik Air which were the main flights at that time. Shipment was also impossible, because the country's main port is in Freetown and been controlled by rebels. Notwithstanding, the country was sanctioned and embargoed by United Nations in 1997, no exporting or importing and no official flights coming in or going out of the country. This really affected International businesses and even the country as a whole.

Another effect is on the safety of human and material resources in organizations. As the city was holding most of the key offices and headquarters of businesses and investments the consecration was very high in the city. The two (2) coup d'états on 16th January, 1996 and 5th May, 1997, makes the governmental system unstable and finally the capturing of Freetown by the rebels created the worst business atmosphere .International business owners, Investors, expectorates and employees ran for their lives and closed their businesses, the rebels were targeting forgers, business owners and staffs that were handing huge salaries. With high level of looting, burning, destruction in the capital, many international businesses and investments suffered from those actions. Their equipment's were and facilities were looted, records were burnt and even some cash, those businesses had spent a lot of money in setting up those facilities, buying equipment and saving records. This discourages a lot of international businesses and investments in the Freetown, and even those that were planning to invest in the country, as all businesses and organizations valued their human and materials resources; they are the key success of every business and organization.

Finally, political instability affected expansion vision for international businesses and investments in Freetown. Due to the destabilization of the city by the rebels, the looting, burning and killing of owners and employees, discourages business expansion. Also the fall of the country's economy that led to the low level of handing and perching power by customers. Different regimes of unelected governments (coup d'état) came with different business policies, and in signing different policies with different governments forcefully well slowdown business strategies in expanding. Businesses and organizations knew those polices are not stable and some not favorable for business expansion. Transportation became another problem for business expansion for international businesses and investments, transporting materials and products within the country were a serious problem because it was not safe and the sanction and embargo was another problem. Those businesses could not maximized profit and they lose a lot of capital on human, material resources and products, business cannot expand in such stations.

DISCUSSIONS

The instability did not only have effect on international businesses and investments it also affected government revenue, the economy of the country falls due to the untimely change of government and mismanagement by leaders. The government was unable to create revenue for its self, in the mining areas all government companies were closed, agriculture was able to develop because nobody was available to look after the firms, and those areas were very dangerous. The government was unable to collect taxes and tariffs from private companies because they were not in operations. Sierra Leone was given sanction and embargo by the United Nations, so the country was at stand still and destabilized.

Production was also affected; the means of production in the country became a problem. There were no workers in the companies and firms, so raw materials were unavailable for production, no way to access them or transport them and capital was another problem to both the companies and the people. Big companies like Aureole Tobacco Company, Magbass Sugar Complex Company Limited, and Rutile Company.

Savings, investments growth and income distribution became ineffective due to the political instability in the country, people were unable to do savings because most companies and businesses are closed so no means of getting income.

Investment growth became affected, investment was unable to expand in and out of the country, businesses, firms and industries were destabilized and they were unable to grow. Most businesses close and raw materials was not also available. Foreign investment could not come into the country because instability, which they know if a country is politically unstable, is not a good ground to invest. The civil war destroyed all of that opportunity in investment growth.

Income distribution became another problem due to the instability in the country; income distribution became unequal among members of the state and to the extent ineffective. This policy became a problem, the distribution of the nation`s total gross domestic product (GDP) amongst its population equally became unsuccessful. Corruption started affecting income distribution in the country, there was inequality in the distribution of the nation`s income individuals, households, social classes and even factors of production. Steven`s regime affected this a lot and the civil war also affected the income distribution in the country, because there was no proper system of government.

Poverty; Sierra Leone became one of the poorest nations the world, which is one of the most resourced rich countries in Africa. The economic resources were abused and grossly mismanaged dating far back to the late 1970 and 1980s. The economy of the country started sinking at that time, only those in government enriched themselves with the country`s wealth. When the civil war came it helps in the destabilization of the country`s economy and the people suffered more through poverty, because there was no developmental activities going on due to the instability. A lot of businesses closed, there was no proper income distribution, the government revenue was affected and production and saving became a problem to country. People were unable to develop themselves economically and educationally.

Education was also affected, Sierra Leone has the first University in West Africa which is the first western style University built in West Africa known as Fourah Bay College, founded in 1827, and the oldest secondary schools in West Africa. They produced the first medical doctor in West Africa, Sierra Leone known as Anthems of West Africa. Education was at it pic, a lot of foreign students were coming from all over Africa to Sierra Leone. Due to the instability most of those students went back to their countries, and even Sierra Leonean lecturers, professors went to other countries and start a new life. They country's educational system went into the drains, especially during the ten (10) years civil war, schools were burnt down, teachers and lecturers were lost their lives and some of those kids were forced to join the rebel movement

(child solider). After the war in 2002, international organizations had to bring educational programs to help in building up the education system in the country, like the Girl Child Education and Sababu Education project.

Infrastructural development went to a standstill and the medical sector was really affected by the instability, medical facilities were destroyed and professional doctors flew to other countries to work. When the war ended in 2002, medical became a problem, citizens had to go to private hospitals and neighboring counties like Ghana for good treatment, which is very expensive to afford.

An official end to the civil war was declared in January, 2002. By that time, it was estimated that at least 50,000 people had died, with hundreds of thousands more affected by violence and some of 2,000,000 people displaced by the conflict. The first post-civil war elections were held in May 2002, with Kabbah winning a majority of vote. Kabbah's administration focused on fostering reconciliation, maintain internal Security, and promoting economic recovery and reform. Economic recovery in the post-war years was somewhat aided by significant dept. relief and the reopening of bauxite and rutile mains. Still, in the year after the war Sierra Leone was consistently rated as one of the world's poorest countries (Davidson, Christopher and Shekeu, 2016).

Sierra Leone held presidential and parliamentary elections in 2007, Ernest Bai Koroma of the opposition party All People's Congress was elected president, and his party was successful in winning a majority of parliamentary seats. Koroma's administration facilitated the ongoing issue of rebuilding the economy, eliminating corruption, and improving the quality of life in the country. He was reelected in 2012 with almost three-fifths of the votes (Davidson, et.al., 2016).

Solutions are been drawn from the effects of the instability to avoid political instability in the country; one is transparency and accountability in governance, we see how corruption and mismanagement led to the downfall of Sierra Leone economy and to some extent this led to the beginning of the long term civil war and high rate of poverty. But if there is proper accountability and transparency it will reduce the tendency of instability in the country.

Decentralization is another solution, the transfer of authority from central to local government. Like in the regime of Stevens, only his tribe men and families where given political appointments, Steven overruled the constitution of the country and ruled the country in an authoritarian way. He controls all aspects of government and the power of the local government became useless. All those grievances led to the start of the civil war, if there is decentralization thee will be a smooth running of government, the local authorities well be involved in the running of the government and they will not been seeing themselves discriminated out of the system. Also dictatorship in government should be stopped, and I think democracy can help solve that problem. It is very easy for a dictatorship type of government to lead the country into civil war. Example Steven changing the country into a one party state, the oppositions and the people started thinking of going to war. Because their political rights has been taken from them another example is Libya.

Educational programs and develop the system of education throughout the country, this is another solution. This helps in the development of the society, because the more educated people in the country the more the more that country`s human resource become more strong and economical and this attracts business investment into the country. And the government should create suitable business policies in the country.in terms of tax and tariffs, import and export, price, contracts and a good diplomatic relationship with surrounding countries.

This article could be of important to governments, they can learn from the results and solutions given in maintaining stabilized nation, it is also important to companies and businesses, they can benefit from it through having a broadened knowledge on political

instability towards business and investments and feature researchers can also benefit from it they will get wild knowledge about political instability in Sierra Leone and may be as reference in lecture

CONCLUSION

Political instability in Sierra Leone had a great effects on international businesses and investments in Freetown since 1991-2007, the instability caused by the outbreak of the civil war in 1991, the two (2) coup d'état during that period and especially when the rebel forces entered Freetown on January 6th, 1999. Through the findings instability had a great effect on business continuing strategies and plans, inconsistencies in supply chain, sales. Distribution is safety of human and material resources and expansion vision of international businesses. Those effects led to the closure of international businesses and stopped investments, no business leader, investor and entrepreneur would like to operate in an unstably macro environment. Companies, organist ions and investments went throng a lot lose, their facilities, equipment and resources were destroyed, which they had spent a lot of money in setting up.

The civil war ended in 2002, the same year Sierra Leone held it first post-war election with Kabbah as winner. The economy was broken, Kabbah's administration tried in promoting economic recovery and reform programs with dept. relief and reopening of bauxite and rutile mains. The economy of the country was still not moving, until in 2007, when Sierra Leone held it presidential and parliamentary elections, Ernest Bai Koroma of the All People's Congress emerged as the winner.(Davison et.al., 2016) Koroma's administration facilitated the ongoing issue of rebuilding the economy, eliminating corruption and improving the quality of life in the country. They were able to more international investment into the country, especially in the mining sector like London Mining and Africa Minerals that helps in busting the economy and the lives of the citizens.

Solutions are been given in controlling political instability, transparency and accountability in governance, decentralization, democracy, educational programs and developing the system of education in the country. This paper will be significant to government, feature researchers, industries, companies, international businesses and global market.

REFERENCES

Alberto A. & Perotti, A. 1995 *Income Distribution, Political Instability and Investment*.

Ari. A. & Francisco J.V. *How Does Political Instability Affect Economic Growth?, IMF Working paper.*

Collier, P. 2000. Doing well out of war: an economic perspective, in M Berdal and DM Malone (ed.), *Greed & grievance: economic agendas in civil wars*, Lynne Rienner Publishers, Boulde.

Davies, R. 1996. *The Sierra Leone situation: the spill-over of the Liberian civil war into Sierra Leone: peace-making and peace-keeping possibilities, report*, UN Institute for Training and Research/International Peace Academy, New York.

Davison, S.H.W. Nicol, C.F, & Shekeu, M.S. 2016. ENCYCLOPAEDIA BRITANNICA,

Gberie, L. 2005. A *dirty war in West Africa: the RUF and the destructions of Sierra Leone*. C. Hurst & Co-Publisher pp. 26-27

Harvard University. 2012. *Political Instability and Economic growth.*
https://www.reference.com/government-politics/definition-political-instability-da09becc7984e9a6

Keen, D. 2003. Greedy Elites, Dwindling Resources, Alienated Youths: The Anatomy of Protracted Violence in Sierra Leone, *Internationale Politik und Gesellschaft,* (Online) vol. 2, http://www.fes.de/ipg/IPG2_2003/ARTKEEN.HTM [accessed April 28 2012].

Marina A. and Pierre-Daniel G.S. 2007. Barriers to Foreign Direct Investment Under Political Instability. *Economic Quarterly*- Vol.93, No.3. pp. 287-315

McKenna, A. 2011. *The History of West Africa*. He Rosen Publishing Group. pp. 202-203

Merleau-Pouty, M. 1956. *What is Phenomenology? Cross Currents*, 6, 59-70.

Pham, J.P. 2005. *Child Soldiers, adult interests: the global dimension of Sierra Leone tragedy*. Nova Publishers pp. 33-35

Sierraleonecivil. Com. Feb 8th. 2012. Admin

Simch-Levi, D. Kaminsy, P. & Simchi-Levi, E. 2003. *Designing and Managing the Supply Chain, Concept, Strategies and Case Studies*, Irwin/McGraw.

William. R. 2003. *To the economist, this is war motivated by greed. For the young fighter, it is injustice.* Cambridge University Press, Cambridge. pp. 46.

Islamic Accounting : Coherency between Musharaka and Mudharaba Financing on Syaria Rural Bank (SRB) towards SFAS 106 and 105

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Abstract: Sharia Rural Bank is a financial institution of Islamic banking, which is the pattern of operations follows the principles of sharia or Islamic muamalah. In its operations there are several financing, such as *musyaraka* and *mudharaba*. Musharaka is a partnership contract betweeibrahimn the owners of capital by mixing their capital for purposes of profit, whereas, mudaraba is the term refers to a form of business contract in which one party brings capital and the other personal effort. The proportionate share in profit is determined by mutual agreement. But the loss, if any, is borne only by the owner of the capital, in which case the entrepreneur gets nothing for his labour. to attain a compatability with Islamic Shari'a, needs cornerstone of laws, SFAS 106 and 105 is a benchmark that used as guidelines related to conformity accounting treatment of Musharaka and mudorobah financing on Sharia Rural Bank. The purpose of this article is to provide an understanding of accounting Musharaka and mudaraba, cornerstone of laws and accounting applications of *musyaraka* and *mudharaba* financing within Syaria Rural Bank. Second, describes SFAS 106 and 105, and third, suitability between Musharaka and *Mudharaba* Financing on Syaria Rural Bank (SRB) towards SFAS 106 and 105. This article literarture review was compiled based on reference books and journals. The study shows that Musharaka and mudaraba financing into Syaria Rural Banks does not necessarily always have coherency towards SFAS 106 and 105.

Keywords : islamic accounting, musyaraka, mudharaba

Musharaka can be viewed as a common form of an undertaking for the results, the other terms of *musyaraka* is syirkah which means partnership, union or partnership. (Sula: 2010). Additionally Musharaka can be interpreted as a collaboration between two or more parties in a particular business in which masihng each party contributes funds to the benefit and risk in the responsibility shared by the agreement that was made (Sudarsono, 2003). According to the National Islamic Council MUI defined that Musharaka is an agreement of cooperation between two or more parties to a specific business, in which each of them provide funding kontribus with provisions and losses divided by agreement. It can be concluded that the Musharaka is a partnership contract which involves two or more people in a certain business which if experience gains or losses will be divided based on the agreement that has been done. Musharaka is divided into two types: permanent and Musharaka Musharaka declined. Musharaka Musharaka permanent is that the distribution of funds to each of its partners have been determined in accordance with the contract and has remained up until the end of the contract period. While decreasing Musharaka (*Musyaraka Mutanaqisah*) is *musyaraka* with the provisions of section entity funds will be transferred gradually to other partners so that the funds of entities will decrease and eventually partner contract period will be the owner in full. Permanent Musharaka is divided into four types: (1) *Inan*, a joint venture (joint venture) in which capital and expertise given is not the same. (2) *Mufawadhah*, a joint udaha where capital and expertise given the same amount and quality. (3) *Abdan*, a joint venture in which the capital

provided in the form of labor or expertise. (4) *Wujuh*, a joint venture in which one of the capital provided dalah good name.

Mudharabah can be defined as a partnership between the owners of capital to the fund manager in order to make a particular effort with the results based on the ratio. Another understanding explains the meaning of mudaraba is an agreement of cooperation in a venture between shahibul maal (Own funds) with mudharib (the fund manager) with the acquisition for hasi based on an agreement in advance. In this case, if the business suffered a loss, then the owner of that bear such losses unless the loss by negligence disebaban fund managers, such as misappropriation, fraud, breach of rules etc (Muhammad, 2005). In other words mudaraba can be defined as an agreement between the owners of capital (in the form of financial or goods) with the employer (the fund manager) which the owner is willing to finance the business as a whole and fund managers bersedi manage capital and profit sharing arrangements in accordance with the agreement. Types of mudaraba in to form the three of them: 1) mudaraba mudaraba mutlaqah is the kind where the owners of capital gives freedom to the fund manager in order to take the business to run its investment. 2) *Mudharaba*h *Mudharaba*h muqayyadah is the kind where the owners of capital provide restrictions on fund managers, including the location, and businesses on how to use the investment. 3) Mudaraba Musharaka which gives fund managers participated in the capital investment cooperation.

Law of Musharaka and mudaraba

Musharaka

Al-Quran

In the word of God in Surat An-Nisa 'verse 12 which reads

> "And if a man or woman leaves neither ascendants nor descendants but has a brother or a sister, then for each one of them is a sixth".
>
> And indeed, many associates oppress one another, except for those who believe and do righteous deeds - and few are they." And David became certain that We had tried him, and he asked forgiveness of his Lord and fell down bowing [in prostration] and turned in repentance [to Allah]. " (Qs.Shad (38):24).

Sunah

> "From Abu Hurairah that the Prophet SAW said, Allah SWT says: "I was a third party between two people yng bersrikat for one party does not betray the other. if one of the parties has been betrayed, I came out of them ". (HR. Abu Dawud from Abu Hurayrah).

Mudharaba

According to the consensus of the scholars' law of mudaraba is allowed (allowed but not required) (Turrosifa: 2013). In the Qur'an and Hadith explained about mudaraba

Al-Quran

> "And if you are on a journey and cannot find a scribe, then a security deposit [should be] taken. And if one of you entrusts another, then let him who is entrusted discharge his trust [faithfully] and let him fear Allah , his Lord. And do not conceal testimony, for whoever conceals it - his heart is indeed sinful, and Allah is Knowing of what you do"(QS Al-Baqarah :283)

Sunah

Of Salih bin Suaib r.a that the Messenger of Allah said, "in which there are three things blessed: buying and selling is tough, muqaradhah (mudaraba), and mixing up with flour for domestic purposes and not for sale." (HR. Ibn Majah)

> "Abbas bin Abdul Muttalib if handed treasure as mudaraba, it requires the managers of the funds that are not across the sea and down the valley, and does not buy cattle. If the requirements are violated, he (pengelolah funds) should bear the risk. When the requirements set Abbas heard the Messenger of Allah, he justifies. "(HR. Thabrani of Ibn Abbas)

Musharaka and *mudaraba* financing

As has been explained above concerning the legal basis of the financing is based on the principle of Musharaka and mudaraba allowed. The bank with its system entered into partnerships with customers in a certain period of time to build a business (Supriyadi, 2004).

In practice there are pillars, the terms and conditions of Musharaka and mudaraba financing that must be met based on SFAS 106 and 105, among others:

Musharaka financing

Legitimate requirement of a transaction is dependent on what is traded, in this case something that must be managed and can be represented so that something invested can be binding on the parties hereto. Based on the opinion of Imam Hanafi, there are two pillars and Musharaka financing requirement that consent and qabul. However, there are some scholars who argue that the pillar in Musharaka financing there are several kinds of them:

1. Speech, supply and demand (consent and qabul). Akad *musyarakah* not have a special shape, as long as there pelafatan representing the destination. and the contract is considered valid if there is a verbal utterance and the contract are recorded in writing and there is a third party as a witness.
2. The contracting parties. In'll *musyaraka*h the contracting parties should be able to either provide the mandate and given the mandate, because in Musharaka contract partners also play a role represents a treasure to be pursued.
3. Objects deal: capital and labor. Capital: What is meant by capital is in the form of cash, gold, silver, or which have the same value. Capital can be in several forms such as trading assets, goods, equipment and more. It can also take the form does not look like patents, licenses. Work: in the implementation of the members shall participate in the work being done in an effort that was developed tangpa exception. But the similarity of work is not a requirement. if there are members who do more work than the other regards it is permitted and allowed anyway require additional gains for themselves. Described also by Muhammad that *musyaraka*n can turn into the contract if it has fulfilled the requirements and get along rukunnya, including: (1) the words that indicate permission will control a treasure, (2) members of mutual trust and trust, (3) treasure (capital) which will invest blended into one, (ukun legitimate in doing Musharaka is: (1) types of capital assets, (2) ratio for the outcome of capital unionized, (3) content of work of each party association. (Yuwono, 2012)

Mudharaba financing

Pillars and the terms of the financing is telahd i explained by MUI national Islamic council No: 07 / DSN-MUI / IV / 2000, which contains about:
Pillars and Conditions Financing:

1. The financiers (sahibul maal) and managers (mudharib) must be capable of law.
2. Statement of consent and qabul must be declared by the parties to demonstrate their will to enter into a contract (contract), taking into account the following matters: (1) Offer and acceptance should explicitly indicate the purpose of the contract (contract). (2) Acceptance of the offer made at the time of the contract. (3) Akad put in writing, by correspondence, or by using modern ways of communication.
3. Capital is the amount of money and / or assets given by the provider of funds to mudharib for business purposes with the following requirements: (1) Capital should note the number and type. (2) Capital can take the form of money or goods were assessed. If the capital is given in the form of an asset, the asset must be assessed at the time of the contract. (2) Capital can not be in the form of accounts receivable and payable to mudharib, either gradually or not, in accordance with the agreements in the contract.
4. Gain mudaraba is the amount obtained as the excess of capital. Terms profits following must be met: (1) Should be reserved for both parties and should not be required to only one party. (2) Proportionate share of the profits for each party must be known and stated at the time the contract was agreed and should be in the form percentage (ratio) of profits under the agreements. Changes in the ratio should be based on an agreement. (3) Fund providers bear all the losses resulting from the mudaraba, and managers should not bear any losses resulting from errors unless intentional, negligence, or violation of the agreement. The business activities by the manager (mudharib), as the balance (muqabil) capital provided by the fund providers.

SFAS 106 and 105

SFAS 106

In SFAS 106 contains rules relating peratutan matters relating to Musharaka. Among others :

1. Recognition and measurement. For accountability Musharaka and business management as a basis for the determination of the results, the active partners or those who manage businesses *musyaraka*h must make separate accounting records for the business Musharaka (SFAS No. 106, par 13).
2. Presentation of Musharaka. Active partners presenting the following matters related to the business *musyaraka*h in the financial statements: (1) Cash or non-cash assets are set aside by the active partner and received from the passive partner presented as investments Musharaka; (2) Musharaka assets received from the passive partner presented as a component temporary syirkah funds; (3) Difference in votes Musharaka assets, if any, are presented as an equity component (SFAS No. 106, par 35).

   The passive partner presents the following matters related to *musyaraka*h businesses in the financial statements: (1) Cash or non-cash assets transferred to active partners served as Musharaka investments; (2) Deferred Gain on revaluation increment noncash assets submitted on fair value is presented as a contra account (contra account) of investment Musharaka (SFAS No. 106, par 36).
3. Disclosure Musharaka. Partners reveals things related Musharaka transactions, but are not limited to: (1) the contents of the main agreement Musharaka effort, as part of the funds, (2) sharing of results of operations, business activities Musharaka, and others; (3) business manager, if there is not an active partner; and (3) disclosure is necessary in accordance with SFAS 101: Presentation Islamic Financial Statements (SFAS No. 106, par 37).
4.

SFAS 105

As we know that FRS is the standard used in the context of financial reporting country Indonesia (Turrosifa, 2013). FRS is a guideline used for the preparation of financial statements. In SFAS 105 regulates everything related to the transaction of financing.

Recognition of Financing

SFAS No. 105 Paragraphs 12, mudaraba fund which is distributed by the owner recognized as mudaraba investment fund at the time of the cash payment or delivery of non-cash assets to the fund manager. SFAS No. 105 Paragraphs 14 and 15, if the value of the investment mudaraba down before businesses started due to damaged, missing or other factors not negligence or fault of the fund manager, the impairment was recognized as a loss and reduce the investment balance mudaraba. But if the majority of investment mudaraba lost after the commencement of business in the absence of negligence or error on the fund manager, then the loss is calculated at the time for the results.

Measurement Financing

SFAS No. 105 Paragraph 13 (a), mudaraba investment in the form of cash are measured at the amount paid. SFAS No. 105 Paragraph 13 (b), mudaraba investment in the form of non-cash diakur at the fair value of non-cash upon delivery: (i) If the fair value is higher than its carrying value is recognized, the difference is recognized as a gain deferred and amortized over the term *mudaraba*h time. (Ii) If the fair value is lower than its carrying value, the difference is recognized as a loss.Pengakuan bagi hasil *mudaraba*h

SFAS No. 105 Paragraph 20, if the mudaraba investment exceeds the reporting period, operating income recognized in the period the corresponding entitlement agreed ratio. SFAS No. 105 Paragraph 21, the losses incurred in a prior period expires *mudaraba*h recognized as losses and the allowance for investment losses. At the time of the mudaraba contract expires, the difference between: (a) Investment mudaraba net of allowance for investment losses, and (b) Return on investment mudaraba, is recognized as a gain or loss.

SFAS No. 105 Paragraph 23, losses due to negligence or errors charged to the fund manager and the fund managers do not reduce investment mudaraba. SFAS No. 105 paragraph 24, part of the results of operations that have not been paid by the fund pengelolah recognized as receivables.SFAS No. 105 Paragraph 20, if the mudaraba investment exceeds the reporting period, operating income recognized in the period the corresponding entitlement agreed ratio.

SFAS No. 105 Paragraph 21, the losses incurred in a prior period expires *mudaraba*h recognized as losses and the allowance for investment losses. At the time of the mudaraba contract expires, the difference between: (a) Investment mudaraba net of allowance for investment losses, and (b) Return on investment mudaraba, is recognized as a gain or loss. SFAS No. 105 Paragraph 23, losses due to negligence or errors charged to the fund manager and the fund managers do not reduce investment mudaraba. SFAS No. 105 paragraph 24, part of the results of operations that have not been paid by the fund pengelolah recognized as receivables.

Measurement *Mudaraba*h Profit Sharing

SFAS No. 105 Paragraph 11, sharing mudaraba effort to do based on the principle of profit sharing or for profit (profit sharing). If based on the principle of profit sharing, the sharing

of the results of operations are the basis of gross profit (gross profit) instead of total revenue (turnover). Meanwhile, if based on the principle of profit, basic division is the net profit (non-profit) that the gross expenses related to the fund management *mudharaba*h.

The Final Settlement of an Existing Contract

The length of cooperation in mudaraba is not certain and is not limited, but all parties are entitled to determine the term of the contract of cooperation by notifying the other party. However *mudharaba*h can ends for matters as follows: In the case of mudaraba limited in time, then *mudharaba*h end at a predetermined time, namely: (1) One party decides to resign. (2) One of the parties dies or hilnag sense. (3) Pengelolah funds do not run amanahnya as pengelolah effort to achieve the objectives as set forth in the contract. As the parties mengemmban mandate he should be acting in good faith and carefully. (4) Capital is not there. SFAS No. 105 Paragraph 19, if *mudharaba*h expire before or when the contract fell empo and unpaid by pengelolah funds, investment *mudharaba*hi recognized as a receivable. SFAS No. 105 Paragraph 9, refund *mudharaba*h be phased in conjunction with the distribution of profit sharing or in total at the time of the mudaraba contract is terminated.

Presentation of Financing

SFAS No. 105 Paragraph 36, the owner serves sebasar mudaraba investment funds in the carrying value of the financial statements. SFAS No. 105 Paragraph 37, the fund manager serving mudaraba transactions in the financial statements: (a) temporary syirkah funds from owners of the funds are stated at their carrying amounts for each type of mudaraba. (B) For the funds earned from temporary syirkah calculated but not yet handed over to the owner of the funds presented as undistributed profits have to share.

Research Accomplished

Research related to the suitability of Musharaka and mudaraba financing to SFAS 106 and 105 never done such research conducted by Sari (2014) concerning the application of SFAS 106 in accounting for investments Musharaka. based on the results obtained related to a review of compliance with SFAS 106 have been realized well in PT. Islamic banks nevertheless Islamic banks must keep in order not to deviate from SFAS 106.

Another study conducted by Yahdiyani (2016) on the analysis of the application of SFAS No. 59 and SFAS. No. 106 on Musharaka financing results of this study explain that (1) the accounting recognition of the *Musharaka* financing consisting of investment recognition, recognition of losses, the recognition of receivables and the recognition of expenses in accordance with SFAS No. 59 and SFAS No. 106, however, the recognition of profit is not in accordance with SFAS No. 59 and SFAS No. 106 because it is calculated based on projections; (2) measurement of the *Musharaka* financing accounting in accordance with SFAS No. 59 and SFAS No. 106; (3) accounting presentation to Musharaka financing is not in accordance with SFAS No. 59 and SFAS No. 106, it is because there is no grouping of elements of the balance sheet; and (4) the disclosure of accounting to the Musharaka financing is not fully in accordance with SFAS No. 59 and SFAS No. 106, such discrepancy is the lack of disclosure of allowance for investment losses Musharaka and disclosure of impairment losses Musharaka assets.

Furthermore reseaech done by Turrosifa (2013) on the application of SFAS 105 in the transaction of financing shows that Islamic banks have been able to implement SFAS 105. In

other words, the bank's compliance with SFAS 105 can be realized either, so Islamic banks should be able to keep the compliance can continue to run.

In addition, research will be undertaken by Andarini on the analysis of financing transactions based on SFAS 105 shows that financing is still not compliant and has not fully implemented the rules on financing is under SFAS 105. Still there is a mismatch for example the use of revenue sharing in the calculation of the results by the Islamic Bank that are not used anymore in SFAS 105 and the difference between the Bank's mention of the term with SFAS No. 105. The cause of this discrepancy is still guided by the Islamic Bank of SFAS 59, Accounting for Islamic Banking in the application of financing, whereas as of January 1, 2008, SFAS 105, Accounting for Mudharabah been enacted to replace IAS 59 which in the case related with the recognition, measurement, presentation and disclosure.

Based on several studies that have been done show that the application of Musharaka financing and mudaraba not obtaining in accordance with SFAS prevailing there are still some Islamic banks which when viewed farther yet fully realize the IAS, so that more depth always needs to be done to see if the Islamic banks has been completely obedient to SFAS applicable. So with such compliance will not be any party who feels aggrieved parties.

REFERENCES

Andarini, N.P. 2016. *Analisis Transaksi pembiayaan mudharabah berdasarkan PSAK No. 105 (study kasus Pada bank Syariah Mandiri Cabang Malang)*. Jurnal. Vol. 1 No. 1

Dewan Syariah Nasional MUI. 2000. Pembiayaan *Mudharaba*h (Qiradh).

Muhammad. 2005. *Pengantar Akuntansi Syariah. Salemba Empat*. Jakarta.

Sari, I.P. 2014. *Penerapan PSAk 106 untuk avuntansi Investasi Musyarakah pada PT Bank Syariah Mandiri TBk. Cabang jember*. Artikel ilmiah 2014

Sudarsono, H. 2003. *Bank dan Lembaga keuangan Syariah*. Yogyakarta; Adiputra.

Sula, A.E. 2010. *Reformulasi pembiayaan murabahah dengan sistem musyarakah sebagai inovasi produk perbankan*. Simposium Nasional Akuntansi XIII puerwokerto 2010.

Supriyadi, A. 2004. "*sistem pembiayaan berdasarkan prinsip syariah*". Al-Mawarid Edisi XI Tahun 2004

Turrosifa, K. 2013."*Penerapan Psak No. 105 Dalam Transaksi Pembiayaan Mudharabah Pada Bank Syariah Bukopin Cabang Sidoarjo*. Jurnal ilmiah & riset akutansi Vol. 2 No. 8, 2013

Yahdiyani, N.S. 2016. "*Analisis penerapan PSAk No. 59 dan PSAk No. 106 atas pembiayaan Musyarakah pada PT BPRS Formes Sleman, Yogyakarta tahun 2015"*jurnal edisi 5 tahun 2016

Yuwono, J. 2012. *pelaksanaan pembiayaan dengan prinsip Musyarakah pada bank mega syariah indonesia*. Tesis. 2012

_____ Al-Qur'an dan Hadist

_____PSAK 106

_____PSAK 105

Concept Learning of Regulation of Genetic Expression in Eukaryotes Using *Drosophila Melanogaster*

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Abstract: *Drosophila melanogaster* is one of the organisms that had been widely used as genetic model organism, including in Genetics lecture in Biology Department, Universitas Negeri Malang. Meanwhile, Genetics lecture in other universities in Malang were still not using *D. melanogaster* or any other model organism. Therefore, the learning processes were still lack of practical activities. Utilization of *D. melanogaster* in learning process is useful to increase student's activity and also to enhance their concept understanding. Eukaryotes Genetics Expression Regulation is one of the concepts studied in Genetics lecture. Expressed traits of *D. melanogaster* are also influenced by environmental conditions such as high temperature. The development of Genetics lecture module that includes the study of environmental effects on *D. melanogaster* trait expression can be done to enhance concept understanding on that topic. The module development had been done by *Four-D* model, and through the validation and small scale trial it was known to be valid with very good qualification. By the development of such module, learning process obstacles especially those that related to practical work because of learning resource unavailability in other universities can be solved.

Keywords: genetics lecture, regulation of genetic expression, *drosophila melanogaster*

Genetics Course is one of the subjects that must be taken by undergraduate students in Biology major. Various colleges programmed Genetics course in different semesters, with credits and hours per semester is also different according to the curriculum and policy of department at the college, as well as based on the graduate profile to generate. The profile of undergraduate program graduates on each college has been synchronized according to the Indonesian National Qualifications Framework (KKNI) arranged on PP No. 08 Year 2012. Based on KKNI levels, undergraduate students are at level 6. At that level, some of the criteria that have to be mastered are able to apply their expertise and take advantage of science and technology, mastering the concept of the field of knowledge in general. Specifically, they should be able to master theoretical concepts deeply and resolve procedural issues. Based on these criteria, it is clear that undergraduate students who have graduated from a course including genetics course, must master the theoretical aspects (the cognitive) and the application of these theories (skills or psychomotor).

The ideal learning allows students to be actively involved, both mentally and physically. Not only are the cognitive aspects developed, but also the skills of learners. Genetics lectures should be implemented by reviewing the material that refers to relevant learning resources, accompanied by appropriate practical activities to help students find and learn their own concepts. Through discovery learning, students will master the theories better because the concept could become stronger. Kolb (1984) also suggests that learning processes are based on experience (*experiential* learning). According to this theory, the experience (which may include certain skills) is the source of one's learning and development. In addition, the study is

emphasizing on the process undertaken in learning activities, not only assessed on the basis of learning outcomes.

Based on observations at several universities in Malang, Genetics lab activities that utilize the *D. melanogaster* have not been done. Practical works that utilize *D. melanogaster* to study new genetic concepts had been implemented in the Department of Biology, Universitas Negeri Malang (UM). In Biology Department of UM, Genetics practical works is divided into the classical style and 16 kinds of practical projects. Practical projects are done by involving small groups consisting of two students. The project takes one semester and carried out independently by the student along with some consultations with the lecturer / assistant ranging from the preparation of the procedure, research methods, data collection, preparation of reports, until the classical seminar of research reports. Nevertheless, it seems that the practical projects using *D. melanogaster* still not been carried out in other universities in Malang because of some limitations. These limitations exist with regard to the absence of practical activities in the curriculum and in the absence of learning resources that support the practical implementation.

The absence of practical activities utilizes the *D. melanogaster* in the lecture Genetics certainly very unfortunate. As a genetic model organism, *D.melanogaster* had enormous potency to examine the concepts of genetics. *D. melanogaster* has been widely investigated so that information regarding to its genetic profile, development, behavior, physiology or ecology is very easy to obtain (Markow and Grady, 2006). D. melanogaster has an assortment of mutant strains other than the wild-type, for example, mutant white (white eye color) and ebony (black body color) which are easily identified (Chyb and Gompel, 2012). D. melanogaster is also quick to breed, easily maintained in a simple culture media, and abel to produce many offspring so it is suitable to be reproducing organism for genetic studies (Demerec and Kaufman, 1996). The results or findings of experimental research that utilizes the *D. melanogaster* are therefore useful for ensuring a source of learning theories related.

As well as other living things, the expression of *D. melanogaster* characteristics is determined by genotype and environmental factors (Vieira et al., 1999; Mackay and Anholt, 2007). Related to environmental factors that influence the expression of *D. melanogaster* characteristics, high temperatures have been associated with the expression of fecundity and development time of *D. melanogaster*. Fecundity is a female individual's ability to produce eggs that survive to adult phase (Lazzaro et al., 2008). The decline in fecundity has been reported in *D. melanogaster* that was cultured at extreme temperatures (Krebs and Loeschcke, 1994; Huey et al., 1995; Dillon et al., 2007).

D. melanogaster has a life cycle consisting of egg, larva, pupa, until the imago phases (Demerec and Kaufman, 1996). The time required to complete the life cycle is defined as development time. Chyb and Gompel (2012) states that *D.melanogaster* development time can vary up to a few days because of the influence of environmental temperature. Time development of *D. melanogaster* has been reported to occur more rapidly in high temperature environment (Dillon et al., 2007). Exposure to high temperatures in the *D. melanogaster* can be given for several generations to determine the effect more clearly and also to know the tendency of thermal adaptation (Huang et al., 2007; Gilchrist et al., 1996; Dillon et al., 2007).

The findings of the study revealed the influence of environmental factors such as high temperature on the expression of *D. melanogaster* characteristics can be associated with one of the Genetics subject material, namely Regulation of Genetic Expression in Eukaryotes. Referring to the syllabus and lecture plan of Genetics II, Biology Department UM, Regulation of Genetic Expression in Eukaryotes studied to achieve the basic competency 7.1 i.e. understanding the events of regulation of gene expression in eukaryotes. Indicators of that basic competency are students are able to explain the role of environmental factors in the regulation of gene expression in eukaryotes. The results also associated with basic competency in the area

of skills, namely basic competency 13.1: understanding some of the genetic theory through practical application / research project. The effects of high temperatures on the expression of fecundity and development time on *D. melanogaster* can thus be used as a basis for the preparation of learning resources that support the development of cognitive and skills among students.

Learning resource is anything that can be used for learning. Learning resources are not limited to books, but include all the information contained in the various forms of media. Learning resources can also be people, objects, messages, materials, techniques, and background (Liandiani, 2008). According to Wisdom and Gibbs (1994), learning resources are divided into four kinds, including learning resources that teach the lesson content, learning resources that are build another source, learning resources that support learning activities, and learning resources that support learning. One of those learning resources is module. Module is a unit of a planned learning program, which is designed to help students achieve the learning objectives. Learning packages contained in the module is self-contained and self-instruction, so that they can act as self-learning material (Hernawan et al., 2012).

Thus, the experimental research that utilizes *the D. melanogaster*, especially on the topic of the influence of environmental temperature on the expression *D. melanogaster* characteristics can be used as the basis for learning resources Genetics lectures at universities. With the learning resources based on the results of research, universities that still require teaching materials incorporating Genetics lab activity guide will also be helped.

RESEARCH METHOD

The learning module had been developed based on the result of experimental research on the effects of high temperature on fecundity, developmental time, and sex ratio of *D. melanogaster* for several generations (Sukmawati et.al. 2016). Module development was done by *Four D* model from Thiagarrajan (1974). Due to the limitation of research, it was done at three steps including *Define*, *Design*, and *Develop*.

Define

Define stage was carried out to define the needs of Genetics lecture based on the necessity analysis conducted in Universities in Malang. The necessity analysis includes the front-end analysis, learner analysis, task analysis, concept analysis, and specifying instructional objectives.

Design

This stage was carried out by designing the module based on the basic competence stated in the syllabus. Preparation of the module is based on the appropriate format. In this development model, the format used was mastery-learning format, in this case the module format.

Develop

This stage was carried out by developing the module, testing the validity by experts and small scale trial. The experts who validate the module were two lecturers as Genetics experts, and a lecturer as learning resource development expert. The small scale trial involve 10 students of Biology Department, UM who have had studied Genetics course.

The validation by experts and students are conducted using validation instrument consisting some indicators. The comments of those validations were analyzed descriptively. The validation results were scores calculated by the following equation:

$$P = \frac{\sum x}{\sum xi} \times 100\%$$

Where:
P = Validity percentage
$\sum x$ = Total sum of whole answer score per *item*
$\sum x$ = Total sum of maximum score per *item*

Furthermore, the meaning and decision making of the modules quality were done according to Table 1 as follows.

Table 1: Criteria of Module Development Achievement

Level of Achievement	Qualifications	Decision
>80%	Very good	No revision
70% – 80%	Good	No Revision
60% – 69%	Adequate	Revision
50% – 59%	Inadequate	Revision
<50%	Very Inadequate	Revision

(Source: Akbar, 2013)

RESEARCH RESULTS AND DISCUSSION

The result of Define stage was information acquired from front-end analysis, learner analysis, task analysis, concept analysis, and specifying instructional objectives.

1. ***Front end analysis*** showed that one of the Basic Competence in Genetics Lecture is to understand the concept of Regulation of Genetic Expression in Eukaryotes, and to understand the theory through practical work. But in other Universities in Malang, there were no practical work and *D. melanogaster* were not used due to limitation of facilities and the absence of practical work guidelines**.**
2. Learners analysis showed that the students were able to do independent learning activities, but were still needed some guidance in practical activities.
3. Task analysis reveals the learning outcomes stated in the Semester Lecture Plan.
4. Concept analysis showed that the concept related to the Regulation of Genetic Expression in Eukaryotes. The result of experimental result could enhance the concept of *"Biological and Environmental Factors Role on the Regulation of Genetic Expression in Eukaryotes".*
5. Specifying instructional objectives reveal that the objective of the module was to make the students understand the concept of Regulation of Genetic Expression in Eukaryotes and its application in practical work.

The design of the module was as follows:

1. Front Cover
2. Content List
3. Introduction
4. Module General Guide
5. Map of Basic Competence, Indicator, Learning Experience, and Concepts
6. Learning activities 1-4 (research result integrated in learning activity 2, practical work guidelines available on learning activity 4)
7. References
8. Appendix

The development of the module contains expert appraisals and small scale trial. Quantitative descriptive analysis was conducted to determine the validity percentage of module developed according to expert of learning resource development. The analysis is based on expert or validator assessment of the 18 aspects. Scores from each of these aspects are summarized in Table 2.

Table 2: Assessment of Module by Learning Resource Development Expert

No	Aspek Penilaian	Maximum Score	Module Score
1	Title	16	15
2	Preface	12	12
3	Content List	8	7
4	Introduction	20	20
5	Module Guide	8	8
6	Material	8	8
7	Basic Competence	8	8
8	Indicator	8	8
9	Learning Objectives	12	12
10	Main Concepts	28	26
11	Practical Activity	16	16
12	Summary	8	8
13	Formative Tests	12	11
14	Feedbacks and Follow Ups	12	12
15	Practical Guidelines	24	24
16	Answer Keys	12	12
17	Reference	8	8
18	Module Graphics	40	33
	Total Score	**260**	**248**

From the result, validity percentage could be calculated as follows.

$$P = \frac{\sum score\ of\ all\ answers\ per\ item}{total\ of\ maximum\ score\ per\ item} \text{ x } 100\%$$

$$= \frac{248}{260} \text{ x } 100\% = 95,38\%$$

Through these calculations, it is known that the results of the module development have reached the validity percentage of 95.38%. The percentage has been higher than 80%, so that according to Akbar (2013), the module had met the criteria of very good qualification and do not need revision.

The validation by Genetics experts was done according to 9 aspects. The score of those aspects could be seen in Table 3

Table 3: Assessment of Module by Genetics Expert

No	Scoring Aspects	Maximum Score	Scoring by Validators		Total of Module Score
			Expert I	Expert II	
1	Material Scope	16	15	16	31
2	Material Accuracy	16	14	15	29
3	Material Novelty	12	12	12	24
4	Module Format According to Material	8	5	8	13
5	Material Presentation	16	15	14	29
6	Summary	8	8	8	16
7	Formative Tests	8	8	8	16

8	Formative Tests Answer Keys	8	7	8	15
9	References	8	8	8	16
	Total Score	100	92	97	189
	Total of Maximum Score (x2)	200			

From the result, validity percentage could be calculated as follows.

$$P = \frac{\sum score\ of\ all\ answers\ per\ item}{total\ of\ maximum\ score\ per\ item} \times 100\%$$
$$= \frac{189}{200} \times 100\% = 94{,}5\%$$

Through these calculations, it is known that the results of the module development have reached the validity percentage of 94.5%. The percentage has been higher than 80%, so that according to Akbar (2013), the module had met the criteria of very good qualification and do not need revision.

From the small scale trial, 10 students were giving their comments on the module. Most of them were giving comments about the cover layout, font type, and contrasts of the pictures. Module scoring was based on the criteria: ease of use, clearance and helpfulness of material and practical guide, language, and the attractiveness of module layouts. In detain, the assessment of those aspects can be seen in Table 4.

Table 4: Module Assessment by Students

No	Assessment Indicators	Respondent's Scores										Total Score	Maximum Score
		1	2	3	4	5	6	7	8	9	10		
1	The material contained in the module is easily understood	4	3	3	3	3	3	4	4	3	3	33	40
2	The learning guide makes you easier to study the module	4	4	4	3	3	3	3	4	4	3	35	40
3	The material help you to understand the concept of genetic expression	4	4	4	3	4	3	4	3	3	4	36	40
4	The practical work empower you to be actively involved in learning process	4	4	3	4	3	3	4	4	4	4	37	40
5	The material is suitable for undergraduate program students	4	4	4	4	4	3	4	4	4	3	38	40
6	The illustrations is appropriate to the material	4	3	4	4	4	4	4	3	4	4	38	40
7	The sentences are operational and ease the concept understanding	3	3	4	3	4	4	3	3	4	4	35	40
8	Usage of terms are consistent	4	4	3	3	3	3	4	3	4	3	34	40
9	The language is communicative and easy to read	4	4	3	3	3	4	3	4	3	3	34	40
10	The references are relevant and valid	4	4	3	4	4	4	3	4	4	4	38	40
11	Module lay out is attractive	3	3	3	3	4	4	4	3	3	2	32	40
12	The assignments are related to the topic	4	4	4	3	3	4	4	4	4	3	37	40
13	The module could enhance the knowledge on Genetics course, especially in Genetic Expression	4	4	4	3	4	4	4	4	4	3	38	40
14	The module could be used as independent learning resource.	4	4	4	4	3	4	4	4	4	3	38	40

Total Score	**503**	**560**

From those aspects, the validity percentage of module calculation is as follows.

$$P = \frac{\sum score\ of\ all\ answers\ per\ item}{total\ of\ maximum\ score\ per\ item} \times 100\%$$

$$P = \frac{503}{560} \times 100\% = 89{,}82\%$$

Through these calculations, it is known that the results of the module development has reached the validity percentage of 89, 82%. The percentage has been higher than 80%, so that according to Akbar (2013), the module had met the criteria of very good qualification and do not need revision.

The printed module developed was on the topic Regulation of Genetic Expression in Eukaryotes. The scope of these materials include molecular control of the levels of gene expression in eukaryotes, namely transcription, post-transcription, and translation; the role of biological and environmental factors in influencing the regulation of gene expression; and the relationship between gene expression and chromatin organization. Research result on the influence of environmental temperature on fecundity and the development time *D. melanogaster* can support these concepts, especially with regard to the role of environmental factors in the regulation of gene expression. Through the support of these findings, it was expected that the topic Regulation of Genetic Expression in Eukaryotes can be more contextual.

Information regarding to the procedural research techniques is also useful in the development of the module. The procedure that had been done in revealing the influence of environmental temperature on *D. melanogaster* characteristics can be used to draw up a roadmap on practical works in learning modules. With the feature of such practical instructions on the module, module development is also useful to facilitate students who take a Genetics course in the Biology Department of other universities that have not implemented such a pattern lectures at the UM.

CONCLUSION

From the research result, it could be concluded that:

1. Genetics Module on the topic "Regulation of Genetic Expression in Eukaryotes" could facilitate students to learn the topic and implement it on practical work.
2. By the validation and small scale trial, the module was known to be valid with very good qualification.
3. It is recommended to other researchers that have interest in Genetics teaching and learning to implement the module on real Genetics learning activities and analyze its effectiveness.

REFERENCES

Akbar, S. 2013. *Instrumen Perangkat Pembelajaran.* Bandung: Remaja Rosdakarya.

Chyb, S., & Gompel, N. 2013. *Atlas of Drosophila Morphology: Wild-type and Classical Mutants.* London: Elsevier Inc.

Demerec, M., & Kaufman, B. P. 1996. *Drosophila Guide: Introduction to The Genetics and Cytology of Drosophila melanogaster, Tenth Edition.* Washington D. C: Carnegie Institution of Washington.

Dillon, M.E., Cahn, L.R., & Huey, R.B. 2007. Life History Consequences of Temperature Transients in Drosophila melanogaster. *The Journal of Experimental Biology* , 2897-2904.

Gilchrist, G.W., & Huey, R.B. 2010. Parental and Developmental Temperature Effects on The Thermal Dependence of Fitness in Drosophila melanogaster. *Evolution , 55* (1), 209-214.

Hernawan, A.H., Permasih, & Dewi, L. 2012. *Pengembangan Bahan Ajar*. Dipetik October 20, 2015, dari http://file.upi.edu/Direktori/FIP/JUR._KURIKULUM_DAN_TEK._PENDIDIKAN/194601291981012-PERMASIH/PENGEMBANGAN_BAHAN_AJAR.pdf.

Huang, L.B., Chen, B., & Kang, L. 2007. Impact of Mild Temperature Hardening on Thermotolerance, Fecundity, and Hsp Gene Expression in Liriomyza huidobrensis. *Journal of Insect Physiology , 53*, 1199-1205.

Huey, R.B., Wakefield, T., Crill, W.D., & Gilchrist, G. W. 1995. Within-and Between-Generation Effects of Temperature on Early Fecundity of Drosophila melanogaster. *Heredity , 74*, 216-223.

Kolb, D.A. 1984. *Experiential Learning: Experience as The Source of Learning and Development.* Englewood Cliffs, NJ: Prentice Hall.

Krebs, R.A., & Loeschcke, V. 1994. Effects of Exposure to Short-Term Heat Stress on Fitness Components in Drosophila melanogaster. *J. Evol. Biol , 7*, 39-49.

Lazzaro, B.P., Flores, H.A., Lorigan, J.G., & Yourth, C.P. 2008. Genotype-by-Environment Interactions and Adaptation to Local Temperature Affect Immunity and Fecundity in Drosophila melanogaster. *PLoS Pathog , 4* (3).

Liandiani. 2008. *Pengembangan Sumber Belajar*. Dipetik June 4, 2016, dari https://sumsel.kemenag.go.id/file/dokumen/PENGAMBANGANSUMBERBELAJAR.pdf

Mackay, T.F., & Anholt, R.R. 2007. Ain't Misbehavin'? Genotype-Environment Interactions and The Genetics of Behavior. *TRENDS in Genetics , 23* (27).

Markow, T.A., & Grady, P. O. 2006. *Drosophila: A Guide to Species Identification and Use.* London: Elsevier Inc.

Vieria, C., Pasyukova, E.G., Zeng, Z., Hackett, J. B., Lyman, R. F., & Mackay, T. F. 1999. Genotype-Environment Interaction for Quantitative Trait Loci Affecting Life-Span in Drosophila melanogaster. *Genetics , 154*, 213-227.

Wisdom, J., & Gibbs, G. 1994. *Course Design for Resource Based Learning in The Humanities.* Oxford: Oxford Centre for Staff Development.

The Influence of Application of ROPES and Problem-Based Learning Model in Group Counseling Viewed from Basic Skills of Student Counseling towards Problem Solving Skills

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Abstract: Involving students in a Imanuel Lohmay learning actively, independently and responsibly to achieve learning goals become an important theme today. Encouraging students in active learning, independent and responsible are the task of teaching staff (lecturers) in various types of higher education. Especially lecturer at the Institute of Education Personnel (IEP) they are demanded to always innovate in implementing the various models of learning for learning quality determined by the lecturers, students, learning strategy, learning model, supporting facilities and infrastructure. Learning model that has the same features and characteristics when applied in teaching group counseling, especially to train student counseling practice basic skills in problem solving are ROPES and Problem-based Learning Model. The research problem are formulated as follows: (1) Is there a difference in the problem solving ability between the application of ROPES and PBL models in group counseling viewed from student counselling basic skills ? (2) Is there a difference of problem solving ability between students with high basic counseling skills and low basic skills counseling? (3) Is there an interaction between the learning model (ROPES and PBM) with the basic skills of students counseling towards problem-solving skills? The present study aimed to examine the influence of application of ROPES and problem-based learning model in group counseling viewed from basic skills of student counseling towards problem solving skills. There were 64 subjects or participants involved in this study, selected from two class of department guidance and counseling in the State University of Nusa Cendana. The research instrument is a questionnaire as many as 55 items with the option in the form of Likert scale consist of 5 options were applied to measure the influence of application of ROPES and problem-based learning model in group counseling viewed from basic skills of student counseling towards problem solving skills. The result of the research showed that : (1) there is an influence of the application of the ROPES and PBL models in groups counseling viewed from CBS to the increased ability to solve problems (ASP) – (.160 sig. $p > 0.01$), (2) there is a difference between student ability to solve problems that have high BCS and low BCS(.451 sig. $p>0.05$), (3) there is no interaction between the model of learning of ROPES and PBL with CBS of students towards ASP (.232 sig. $p < 0.206$).

Keywords: model, learning, ROPES, PBL, BCS, ASP.

The quality of learning in higher education is determined by the support system that includes professors, students, learning models, facilities and infrastructure. Quality of faculty views of academic qualifications (minimum stratum 2), has a teaching certificate, teaching experience, experience following the appropriate education and training profession (professional competence), personal qualities, pedagogical, and social competence. The quality of students seen from among others, the quality of the input of intelligence, motivation choose courses according to their interests and talents, liveliness following the lecture and perseverance to learn independently. The learning model applied by the faculty in an effort independently student

learning in order to develop optimally to achieve learning goals. Facilities and infrastructure are used in college adheres to the principle of "adequacy and appropriateness" as an additional factor in particular learning and college Tridharma activities generally. All the aspects mentioned can work together and support each other to achieve the goal of meeting the needs of the community, especially the student learning objectives.

Selection of learning models to be applied at any level of education (including college), need to pay attention to "learning as a system, which consists of four components: objectives, materials, methods and evaluation" (Rusman, 2012: 1). Teaching models is based on the principle or theory as a foothold in its development. Experts create a model for learning based on "education principles, theories of psychological, sociological, psychiatric, systems analysis, or other theories" (Joyce, Weil & Calhoun, 2009: 7). Teaching models is also one way of establishing intelligence-oriented education and provide flexibility to the students to educate themselves. According to Eggen and Kauchak (2012:), learning model is a specific approach to learning that has three characteristics: (1) Purpose: The model of teaching is designed to help students develop critical thinking skills and gain a deep understanding of the specific form of matter; (2) phases: teaching model includes a series of steps -often called "phase" - which aims to help students achieve specific learning objectives, and (3) foundation: Models supported teaching theory and research on learning and motivation. The key to the effectiveness of the learning models are (1) to train the student / students to become learners more reliable, and (2) the educators (teachers and professors) to conduct research and development of learning models to provide learning skills in students / student (Joyce, Weil & Calhoun, 2009: 1). Thus the intelligence and skills of the student/students can be increased to achieve learning goals.

Student guidance and counseling as a potential counselor needs to have adequate capacity and skills, not only for himself in solving the problem but the problem of students (counselee) as the subject of the service that will be encountered and be counseled. Student Guidance and Counseling Program at FKIP Undana, specifically the fourth semester that follows the lecture Engineering Laboratories Individual Counseling and V semester that follows the lecture Engineering Laboratories Group Counseling average basic skills counseling is not optimal (low). Based on teaching experience during this, the authors reflect on the learning that has been done. Until the academic year 2005/2006, the researchers used a model of learning-oriented and less domination faculty empower students, especially aims to develop students' ability. Researchers tried to reflect on during this learning and innovation in learning by developing more effective learning model and oriented to the empowerment of students. The learning model in question is the Ropes (Hunt, 1999; Madjid, 2008; Lohmay, 2009: 103, Madjid, 2011). Ropes are an abbreviation of the steps in the learning model that began to be tested since the academic year 2006/2007. Ropes (review, overview, presentation, evaluation and summary). Ropes learning model is the result of adaptation of various learning models that have been developed to experts who subscribes to the theory of cognitive learning.

Two approaches are conducted by a lecturer in learning: (1) teaching approach, and (2) a personal approach. Both approaches aim to develop student competence (personal competence, social competence, pedagogical, professional competence) as a prospective teacher. Learning approach and a personalized approach can be used in a balanced manner with an appropriate model, a model that can empower students. Ropes Model as a model of learning which is seen te pat in an effort to empower and develop the capabilities of students. In the learning model gives a wider opportunity to the students to find sources and materials, organize, discuss in small groups and present it to the class. After a presentation by a small group who served, followed by class discussion to clarify and enrich the material that has been presented group (Lohmay, 2009: 97; puriiman.blogspot.co.id).

Paradigm learning model application that aims to solve the problems of student learning / student began to shift from the regularity (behavioristic understand) to the diversity (understood konstructivistic). By Degeng (1998) refer to it as the era of chaos, and the era that we are in it. This era is very demanding designers and developers are learning to perform a variety of adaptation and innovation to the learning models that seem outdated. The adjustment and renewal of the teaching models in question aims to bring learning model that has characteristics that match the demands of learning at all levels and types of education as well as the characteristics and development of learners / students.

Ropes learning models adapted and compared with problem-based learning (problem based learning) aims to determine the effect separately or together in group counseling in terms of basic skills counseling (BSC) the ability to solve problems. Ropes foot runway learning model is cognitive learning theory, which is based on the principles as presented by Egan and Kauchak as follows: (1) learning and development depends on the experience of pupils (students); (2) People want to make sense of their experiences; (3) people construct knowledge to understand their experience; (4) knowledge built disciples (students) depending on their prior knowledge and experience; (5) social interaction and the use of language to facilitate the construction of knowledge; (6) learning requires practice and feedback, and (7) of learning increases when the learning experience associated with the real world (Eggen and Kauchak, 2012: 54). Ropes learning model application oriented to the principle of "learning to think", learning requires thinking skills to face and solve the problems experienced by students. In applying the learning model Ropes emphasized efforts to empower students to solve his problems independently of their abilities and skills possessed by an individual or group approach.

The problems experienced by students include: (1) personal problems, which include lack of will power, low learning motivation, lack of diligence, intellectual incapacity, and a wrong adjustment. (2) Social issues, such as relationships with peers, relationships with professors, communication with the public, and the adjustment to the social environment. (3) The problem of learning, such as are rarely present in subjects face to face, do not do homework and other tasks, do not concentrate on studying, learning that there would exams, homework assignments without memperhatian true or not, the task by copying paste -from the internet, copying the work of friends, and many more that can still be collected. (4) Issue a career, such as selecting a course to get into college select the original and not on the basis of aptitude and interests, choosing further study did not consider the orientation of career choice later elaborated, after completing a degree can not work according to the field of science ever learned and even other jobs that are not their expertise. Perhaps this is the so-called "pick and pursue alternative career" but every job that must be done based on the knowledge and skills that once learned. To solve the problems as described above, in the learning of individual counseling and group counseling / learning models used laboratory practice Ropes.

Problem-based learning model (PBL) oriented to the principle of "learning to learning". By applying a model student PBM empowered ability to how to deal with real-world problems (environmental) and how to look for alternative solutions. Theoretically PBM proved effective in empowering students' ability to solve problems in the real world, but it is empirically less applied in higher education for students. PBM compared with ropes and used in the counseling group learning / practice laboratory to determine the effect of using both.

Engineering Course Group Counseling Laboratory formerly known as the Engineering Laboratories Counseling II. Based on the results of the consortium chairman curriculum guidance and counseling courses throughout Indonesia on 28-29 March 2009 in Surabaya, changed the name of the course became Counseling / Laboratory Practices. From the description of this course requires for a student guidance and counseling / counselor candidate

has the basic skills adequate counseling to individual counseling and group practices effectively and efficiently. A prospective student guidance and counseling teachers or school counselors were increasingly mastered the techniques of counseling skills it will be more skilled in conducting counseling practice.

The fact during the course parenting counseling group/laboratory practice shows some weaknesses that need to be improved, namely: (1) the students' learning by example create a scenario group counseling, but in practice bound students in the scenario text that is not free in implementing practice; (2) the volume of students (prospective counselors) in counseling is less clear because the sound was not loud and choking; (3) it appears that a student (prospective counselors) less mastered the techniques of basic counseling skills; (4) students (prospective counselors) tend to be more dominant advised not counseling; (5) less visible outcome of the counseling form of greeting verbal and non-verbal client / counselee. Improvements that have been made are (1) the student practice beforehand so that after mastering the basic skills the newly developed techniques of counseling scenario as one of the products of learning outcomes as well as a show of student performance; (2) the volume of students assisted by using the mic and warless/active speakers; (3) allow students to master the basic skills of counseling techniques, carried out a continuous exercise, both in the classroom and outside the lecture hall; (4) continue to be trained to leave a legacy student advising and counseling, and (5) aligned to each counseling session seemed to result in speech verbal and non-verbal behavior through practice adequately. Mastery of basic counseling skills-engineering technique is a must even indispensable for students (prospective counselors) in order to simplify and streamline the practice of group counseling services to be performed.

METHOD

This research was conducted in Guidance and Counseling Program FKIP Nusa Cendana University in the academic year 2015/2016. The subjects were students of the fifth semester consists of two classes (A and B), where class A as many as 34 people into the experimental group (KE) and class B as many as 30 people as a control group (KK).

The research instrument is used several instruments, namely questionnaires, observations and interviews. Questionnaire as the main instrument used is the type of closed questionnaire, that every statement is followed by option (option) answer, the Likert scale (4, 3, 2, 1, 0). 4 = very appropriate; 3 = appropriate; 2 = less appropriate; 1 = not appropriate, and 0 = very inappropriate. The questionnaire of this study include: (1) Questionnaire on BSC (basic skills counseling) as many as 55 items, (2) learning model Ropes many as 25 items, (3) the model PBM as many as 20 items, and (4) the ability to solve problems (KMM) of 25 items. Questionnaire prior to use have been tested for validity and reliability (Reliability Statistics: Cronbach's Alpha of 0894; N of items 55).

The research design used in this study used a quasi-experimental (quasi experiment), with the design of the study: pretest-posttest control group design Nonequivalent (Sugiyono, 2013). In this study design, there are two groups of students, the Experiment Group and Control Group. Both groups of students were given a different treatment is experimental group dibelajarkan using models Ropes and control groups with PBM models. Before the study, both groups were given a pretest (O1 experimental group) and (01 control) to determine the initial ability of students to solve problems based on basic counseling skills of high and low basic skills counseling. After the pretest, the experimental group was given treatment (X1), in which learning by applying the model Ropes. As for the control group was applying PBM (X2). Furthermore, after the implementation of learning in both groups, do pastest (O2 experimental group) and (O2 control group). Data pretest and posttest results of the two groups were

processed and analyzed to determine whether there is difference in problem-solving skills based learning model Ropes and problem-based learning model (PBL) used quantitative descriptive analysis techniques and inferential statistical analysis ANOVA (2x2).

RESULTS

In the analysis of this data, will be described a score of problem-solving based learning model Ropes and PBM models and score criteria for student counseling basic skills to problem-solving skills on each - each group to determine the effectiveness (influence) learning model. After determining influence learning model, it will proceed with ANOVA statistical analysis of the two groups to carry out two different test groups with SPSS 16.0 for Windows. But before doing statistical analysis ANOVA, will first be tested for normality and homogeneity which is the assumption that must be met before performing the analysis.

Data were analyzed using SPSS 16.0. Testing normality was using the Kolmogorov-Smirnov test. The means used to carry out the interpretation of output results of Kolmogorov-Smirnov test analysis is that the pre-test problem-solving skills to group 1 (Ropes) and group 2 (PBL) has a probability value or significance greater than 0.05 (0.664> 0.05). This shows that the problem-solving skills pretest results for the experimental group and the control group with normal distribution. This output is also clear that post-test problem-solving skills to the experimental group (ropes) and control groups (PBL), showed that the results posttest troubleshooting capabilities for the experimental group and the control group with normal distribution, because the probability=0.303 greater (>) of significance 0.05. Furthermore, the data can be analyzed to determine the homogeneity of the covariance matrix of data both for the experimental group or the control group. Covariance matrix homogeneity test data on experimental group learning model Ropes and control groups with PBM models in terms of learning outcomes of students in problem-solving skills. The result is a probability value is greater than 0.05 then the variance-covariance matrix of homogeneous data (0.423>0.05).

From the test of between-subjects effects (Dependent Variable: Ability Solve Problem) it can be explained results of the study based on the hypothesis that has been set.

1. The Influence of the application model Ropes and PBL in the group counseling to increase problem-solving skills In this study, the first thing that was investigated was the effect of the application of learning models ropes and PBM in KDK to increase problem-solving skills. Limits used in determining whether or not the effect of the application of a learning model seen from the thoroughness of the students in learning by using model Ropes and PBM models in improving problem-solving skills. The data in the above table can be seen that the influence of learning outcomes of students who have been subjected to treatment (Ropes learning model and the model PBM) are the same. It can be seen from the value of F for each statistical test which scored 23,154 with a p value of 0.000. The significance value is less than the significance level used is 5% or 0.05. This shows that there is influence learning outcomes of students who are taught by learning model Ropes with student learning outcomes are taught by PBM models. It can be concluded that both of these learning models have the same effect on student learning outcomes in solving problem.
2. Differences between Problem Solving Ability Students Who Have Basic Skills Counseling High And Low.
   The results of data analysis based on basic counseling skills of students showed that the value of F arithmetic of basic skills student counseling at 21 294 with P Value 0.000. The significance value less than 0.05 (P value <0.05), it can be concluded that there are differences in the ability to solve the problem of students with the basic skills of high

counseling and problem solving skills of students with low basic skills counseling. It can be concluded that the basic counseling skills affect the student's problem-solving skills.

3. Interaction between Learning Model (Ropes and PBL) with Basic Counseling Skills Students against Problem Solving Ability

   From the table above hypothesis testing can be seen that the value of F for each statistical test which scored 0.230 with p value equal to 0.633. The significance value greater than 0.05, it can be concluded that there is no interaction between the learning model with the basic skills of counseling students on problem-solving skills. In addition, the results of the analysis it appears that there is no interaction between the learning models with basic counseling skills.

   In summary the results of this study can be concluded that: (1) There is a difference between learning model PBM against the ropes and problem-solving skills of students. (2) There is a difference between students who have high skills and basic counseling students who have low basic skills counseling to problem solving. (3) There is no interaction between the learning model and the basic skills of counseling for problem-solving skills of students.

DISCUSSION

Research data shows that there are three issues of the proposed research has been demonstrated. The results of the study as the study's findings to be discussed below: (1) Application of Learning Model ropes and PBM Against Student In Problem Solving Ability Ropes and PBM learning model can be used in the learning group counseling, especially on practical exercises in basic counseling skills of students in solving problems. If comparing with postest with the pretest showed that students who are taught by the model CBS Ropes with a high of 62.95, SD = 5.19 and CBS low of 64.23, SD = 9.54. While the average post-test were taught to use models with KDK category PBL high of 62.75, SD = 7.51 and a low of 64.00 CBS category, SD 6.58.

If the results of the pretest posttest compared with no increase in the average obtained by the students are taught to use models KDK ropes at 17.91 in the high category and 18.47 in the KDK with low category. While students are taught using PBL models for CBS high category increased 21.80 and the low of 22.30 CBS category. The second application of learning model (Ropes and PBM) in group counseling, as well but the application of the model PBM greater improvement between pretest and post-test than Ropes models.Involving students in the classroom lectures actively, independently and responsibly to achieve learning goals become an important theme today. Encourage students in active learning, independent and responsible is the task of teaching staff (lecturers) in various types of colleges. Especially lecturer at the Institute of Education Personnel (LPTK) demanded always innovating in implementing the various models of learning for learning quality is determined by the faculty, students, learning strategy, learning model, supporting facilities and infrastructure. The demands of the world of work today require LPTK qualified graduates with a grade point average (GPA) of 3.00. For example, recruitment of teachers on the program on condition SM3T minimum GPA of 3.00. For the sake of improving the quality of learning and the quality of graduates LPTK, the alternative is a wise choice of lecturers to improve the quality of learning with various efforts to empower students by applying the learning model that corresponds to the level of student development. Departing from above understadning, the following should be described several studies theory, the basis of this research. Looking at the sources of professional learning technology, learning model based on the theory can be classified into four groups.

First, the Social Interaction Model rests on Gestalt learning theory (field theory) pioneered by Max Wertheimer (1912) with Kurt Koffka and W. Kohler (Rusman, 2012: 136)

that by Joice, Weil and Calhoun called social teaching model group (2009: 295), Models of social interaction or social teaching more emphasis on providing opportunities for learners to maximize their potential and train the ability to work together. The pressure thus based on the assumption that people are basically like working together, argue, discuss, and we always seek to compete with the competency of the opponent debate or discussion (Johnson and Johnson, 1990; Sharan, 1990; Thelen, 1960 in Joyce, Weil and Calhoun, 2009 : 296).

Second, information processing model. This model rests on cognitive learning theory (Piaget) and oriented to the learner's ability to process information that can improve their abilities. The theory of information processing / cognitive pioneered by Robert Gagne (1985) and is built on the assumption that learning is a very important factor in the development, contrary development is the cumulative result of learning (Joyce, Weil and Calhoun, 2009: 95; Rusman, 2012: 139) , Learning is the output of information processing in the form of human prowess consisting of: (1) information verbal; (2) intellectual faculties; (3) cognitive strategies; (4) attitudes, and (5) motor skills (Rusman, 2012: 139).

Third, Model Personal rests on Humanistic theory, which is oriented to the development of the individual. The main emphasis of this model is (1) the emotional learners to develop productive relationships with the environment, and (2) the individual and the development of self. Humanistic figure is Abraham Maslow (1962), R. Rogers, C. Buchler, and Arthur Comb. Humanistic theory was born as a movement to humanize humans. According to this theory the teacher should endeavor to create conditions conductive classroom so that students feel free to learn and develop themselves, both emotionally and to intellectual.

Fourth, Model Behavior departed from behavioristic learning theory that aims to develop an efficient system for numbering learning tasks and forms of behavior by manipulating reinforcement (reinforcement). Behavioral models more emphasis on the psychological and behavioral changes in behavior that cannot be observed. Implementation model of behavior modification in learning is to give rewards to the learning abilities of children low as supporting reinforcement.

Observing each group learning model above with models incorporated in each model group, there are some characteristics in common and at the same time became the foundation for the study of: Ropes (review, overview, presentation, evaluation, summary), PMB (learning problem-based), KDK (basic counseling skills), and KMM (problem-solving). A brief description of the aspects of basic and important, namely: (1) the establishment of capability for personal development in the sense of self-awareness, self-understanding, self-reliance and self-concept (Teaching Model goal of non-directive by Carl Rogers); (2) personal development in creativity and creative problem solving (objectives learning model Sinetik by William Gordon); (3) development of skills for democratic participation in social processes, skills, interpersonal skills (group), and the determination of academic skills (goal Learning Model Determination Group by Herbert Thelen and John Dewey); (4) the development of mental processes of inductive reasoning and academic / theoretical formation (Model Thinking Inductive goal by Hilda Taba); (5) solving social problems, especially through social discovery and logical reasoning (Model Training destination Inquiry), and (6) the expression directly and spontaneously in social situations (Joice, Weil, Calhoun, 2009; Rusman, 2012).

Several studies of the application of learning models Ropes show that: (1) The application of learning models Ropes can be concluded that increasing economic activity and learning outcomes in SMA Negeri 1 Lumajang in class X-3 the first semester of the school year 2011/2012 (Usman Kurniawan, 2011) , (2) Jackie C. Silitonga Dame (2013) examine the effect of learning model on the ability to write short stories Ropes class X SMA Negeri 14 Medan learning year 2013/2014, it can be concluded that using ropes learning model is better than the result of the ability to write a short story by using conventional learning models in class X SMA

Negeri 14 Medan learning year 2013/2014. (3) Hunts (in Madjid 2008 and Nur Sha'ban, 2008) calling plans in preparation for teaching learning procedure is called Ropes with steps Review, Overview, Presentation, Exercise, Summary. Ropes are applied in the planning of teaching by teachers and in a third step they use the term exercise (exercise) in this study the authors use evaluation. The authors evaluation broader than just exercises (exercise), also included in the evaluation exercise. Lesson plans and procedures according to Hunts (in Madjid 2008 and Nur Sha'ban 2008) there is no evaluation step. Exercise as step four of the lesson plan Hunts, "is a process to provide the opportunity for students to practice what they have understood. It is intended to provide hands on experience to students so that more meaningful results achieved.

Therefore, teachers must prepare a lesson plan it properly through systematic scenario "(Hunts in Madjid 2008 and Nur Sha'ban, 2008). (4) Dewi Yuliana Fitri, et al (2012), tested the effect of the application of learning models ropes with teaching peer tutoring to understanding of the concept of mathematical eighth grade students of SMP Negeri 15 Sijunjung, concluded that the application of learning models ropes using peer tutoring better than models other conventional learning. Ropes research learning model has been widely used in research in educational institutions, among others by professors at colleges and teachers in secondary schools and above. The study results above show that the learning model feasible and effective Ropes used as learning model that not only empower the student / students, but also to enable and encourage the completion of tasks effectively and efficiently.

(2) The difference between the problem-solving skills that students have basic counseling skills of high and low basic skills counseling.

The results of data analysis is based on the ability of students to solve problems in the counseling group counseling in terms of basic skills showed that the value of F-KDK student count by 21, 294 with P-value of 0.000. The significance values are less than 0.05 (P-value < 0.05). The findings of this study shows that students who have basic counseling skills high are students who are able to master the basic techniques of counseling and able to apply in practice counseling in setting individual and group settings. Average students who have low basic skills counseling is a student did not master the techniques of basic counseling skills so that when applying them in practice look less visible adequate results. There are differences in problem-solving skills of students with high KDK and problem solving skills of students with low KDK. It can be concluded that the basic skills of counseling effect on students' ability to solve the problem of the clients / counselee.

Psychologically difference students' ability to solve the problems they faced and the problem counselee / client be counseled is a true "natural and reasonable". But need to be given attention that in developing the ability of students in the average level down to be empowered through learning activities in order to develop optimally. Efforts to empower students through problem-based learning in several ways: (1) Provide ample opportunity and responsibility up to the students to determine their learning (Wilson & Cole, 1996 in Yudiernawati, 2014: 23). (2) Give tasks to students to how to learn to deal with problematic situations they face effectively in the field (Tene, 2002). (3) Working together in small groups to discuss the appropriate strategy in solving the real problems that they face. (4) Make a choice of a number of alternatives are available as an option a smart step in solving the problem.

(3) There are currently no Interaction Between the Ropes and PBM model with CBS Students Against ASP.

Theoretically counseling group counseling in terms of basic skills, especially in order to give a lecture to the students, and then include learning. When paired with Ropes and PBM models, it should interact with the students problem-solving skills. But the findings of this study there was no interaction between variables ropes and PBM models with Basic Counseling Skills on student problem-solving skills. From the results of analysis show that the value of F-count

= 0.230 with a P-Value of 0.633. The significance value of 0.05 then it can be concluded that there is no interaction between the learning model Ropes and PBM with KDK towards problem-solving skills of students.

Theoretically from professional sources of learning models (especially Ropes and PBM) is assumed to have a strong base their interactions with basic skills-based counseling group counseling. Based on the results of observations during implementing learning strategies ropes at various college classes, especially in learning guidance and counseling (Lohmay, 2009: 105; puriiman blogspot.co.id) can be described in psychological contribution as follows: (1) Students freely and actively seeking sources of various references to obtain course material as their task to be studied. (2) The average student is able to cooperate in preparing assignments in a relatively short time. (3) Individual weakness overcomes by learning together in the form of discussion and works on group tasks. (4) On average students show their creativity in analyzing and presenting material to the task group. (5) At the time of presentation of the task, it requires students to develop reasoning and communication skills. (6) is more creative learning environment in terms of personal development of students. (7) Relationship lecturers and students in a more conducive learning environment, so that the partnership may be perceived psychological stress of a particular student can be resolved. Assumptions and psychological donations above Ropes model application further strengthen relationships and linkages with instructional guidance and counseling, but the results of this study indicate that there is no interaction with the basic skills counseling for problem-solving skills. There are other factors that are supposed to influence but not participate examined in this study. The internal factors, among others: (a) understanding of the students at the time of filling the questionnaire and participation in treatment (learning). (B) the execution time span between pretest and posttest were a bit far (nearly three weeks). (C) The level of students' academic ability varied, evident from students who have CBS high and low.

Problem-based learning has five general characteristics proposed by Warsono and Hariyanto (2013), namely: (1) developed from questions or concerns; (2) inter-disciplinary focus, the problem can be investigated from various disciplines; (3) the investigation is authentic, relevant to the issues in real life and directly observable; (4) produce artifacts in the form of reports, papers, models, video, text Darama, and others; (5) the existence of collaboration or cooperation between learners in the group. Judging from the above characteristics, seemed link between the application CBS ASP should have interaction with the ability to solve problems. But the results of this study prove there is no interaction with the PBM model of ropes and CBS towards problem-solving skills. External factors are suspected to be considered and was eleminired in this study were (a) lack of facilities and infrastructure of learning, among others: not available laboratory space counseling so the practice was held in the lecture hall, (b) the unavailability of laboratory equipment such as mic wairless, and a desk chair.

From the findings of the three shows that there is indeed no interaction between models ropes and PBL with Group Counseling in terms of the Counseling Basic Skills (CBS) the ability to solve problems (ASP), That is, if all the factors that come into effect in this study has not been studied but if a time controlled in such a way, then indeed there is an interaction between the Ropes and PBM models with the ability to solve problems CBS (ASP). These findings provide an opportunity for this study need to be examined other variables relevant in the future. Of testing the hypothesis in mind that the alternative hypothesis (Ha) first and second proven and accepted while the null hypothesis (Ho) is rejected. The third hypothesis about the interaction between the learning model variables ropes and PBM with KDK not proven so rejected and Ha Ho accepted. Thus from hypothesis testing, it is necessary to study theoretically and empirically. (1) Theoretically that counseling is also teaching and learning model is a

specific learning approach, so it can be assumed that the variable model of learning with group counseling (focus on the basic skills of counseling) there is interaction of the students problem-solving skills. (2) Empirically proven from the findings of this study that the relationship between the variables of learning model Ropes and PBL with CBS there are interacted. This is caused by: (a) There are other variables that do not participate investigated but affect the results of this research, among others: the internal factors of students in the form of personality, understanding of the completed questionnaires, the seriousness of students in practice, and other external factors that are not taken into account before.

CONCLUSION

Based on description in previous chapters, especially exposure to research results (results of analysis), hypothesis testing and discussion, we can make some conclusions: (1) there are differences in the ability to solve problems between the application of the model ROPES and PBL in group counseling in terms of basic skills counseling college student. Conclusion this is evidenced by the results of inferential statistical tests showed that the F-count = 0.160> p value of 0.001. The significance value is less than the significance level used, which is 5% or 0.05. The results of this analysis indicate that there is influence learning outcomes of students who are taught by the model Ropes and learning outcomes of students who are taught using PBL models. Both this model had the same effect on the learning outcomes of students in solving problems. (2) There is a difference between problem-solving skills that students have basic counseling skills of high and low basic skills counseling. This conclusion is reinforced by the results of the analysis that the value of F-test of basic skills student counseling at 21.294 with a P-value of 0.000. The significance value is less than the value of 0.05 (P-value <0.05). (3) There is no interaction between the learning model (Ropes and PBM) with the basic skills of counseling students on problem-solving skills. This conclusion is based on the F-count = 0.230 with p value of 0.633. The significance value is greater than 0.05.

Suggestion

Based on the conclusions on the above results, then there are some suggestions regarding (1) the utilization of the results of studies in the field of learning technologies for the sake of learning in higher education in particular and education in general. (2) The development and advanced research. The second suggestion emphasizes attempts to overcome the limitations of this study. First, research's utilization, in order to study in universities in particular and education in general, it is advisable to use the results of this study as follows: (a) ROPES learning model is one model of learning that is recommended for use in university lecture classes high, especially counseling courses to improve students' skills in guiding and counseling. (b) learning model Ropes and PBM used separately or together in learning guidance and counseling, especially in problem-solving exercises. (c) There is a possibility Ropes learning model can also be used in elementary, junior high and high school / vocational learning in school. Second, the suggestion for the development and the next research, experiment of scrutiny of hypotheses and conclusions on the outcome third study, that there is no interaction between the ropes and the PBM model with basic skills counseling for problem-solving skills, allowing the need for further research. However, further research can be verified against the conclusions that have been produced, as well as other aspects that have not been examined when the study was conducted. (a) It is necessary to study the replication of this study as well as other variables that have not been taken into account in this study need to be included in the

following study. (b) Further studies are also needed in other types of research such as qualitative research and action research.

REFERENCES

Abimanyu, S. & Manrihu, Th. 1996. *Engineering Laboratories Counseling*. Jakarta: Director General of Higher Education Department.

Abimanyu, S. 2010. *Strategy Learning (Instructional Materials Print)*. Jakarta: Director General of Ministry of National Higher Education.

Adian, G. & D. Pratt, H.S. 2015. *Mechanical Arguments: Thinking as a Life Skills*. Jakarta: Prenadamedia Group.Allen.Webb@wmich.edu. Lesson Plan Format. Revised Date: 2/15.

Arthur L.C. and Bena, K. 2008. *Learning and Leading with Habits of Mind: 16 Essential Characteristic for Succses*. Beauregard St, Alexandria USA: ASCD.

Arthur L.C. and Bena, K. 2008. *Learning and Leading with 'Habits of Mind': 16 Characteristics Important For Success*. Interpretation: Brian Reza Dafi. Jakarta: PT Index

Brammer, L.M. 1985. *The Helping Relationship Processes and Skills (third edition)*. New Jersey: Prentice-Hall, Inc. Englewood Cliffs.

Carkhuff, R.R. 1983. *The art of helping (fifth edition)*. Amherst, Massacahusetts: Public Resource Development Press, Inc.

Chen, Wei-Whei & Rybak, C.J. 2004. *Group Leadership Skills: Interpersonal Process In Group Counseling and Therapy*. Canada: Thomson Learning Inc.

Corey, M.S. Corey, G. & Corey, C. 2010. *Groups Process and Parctice*. Belmont: Brooks / Cole.

Costa, A. 2008. *aestetics: Where thingking begins. In A. Costa (Ed), The school as a home for the mind*. Thousand Oaks, CA: Corwin.

Covey, S. 1989. *The seven habits of highly effective people: Powerful lessons in personal change*. New York: Simon & Schuster.

Degeng, I.N.S. 1998. Searching for a New Paradigm Troubleshooting Learn From Regularity Towards Clutter. Inauguration speech. Malang: The Malang Teachers' Training College PPS

Degeng, I.N.S. 2013. *Science Learning: Variable classifications for Development Theory and Research*. Bandung: Kalam Hidup.

DeLucia-Waak, J.L. 2006. *Leading Psycoeducational Groups for Children and Adolescents*. California: Sage Publications Inc.

Eggen, P. & Kauchack, D. 2012a. *Startegie and Models for Techers: Teaching Contents and Thinking Skills*. New Jersey: Prentice Hall Inc. Englewood Cliffs.

Engkoswara. 2003. Basic Methodology of Teaching. Jakarta: Bina Script.

Fauzan, L., Hidayah, N. & Ramli, M. 2008. *The basic communication techniques for counselors*. Malang: UPT BK UM.

Fisher, A. 2007. *Critical Thinking: An Introduction*. Cambridge: University Press Cambridge

Fisher, A. 2009. *Critical Thinking: An Introduction. (Interpretation by the publisher)*. Surabaya: Erland.

Geldard, K. & Geldard, D. 2005. *Practical Counselling Skills An Integrative Approach*. Queensland: Palgrave Macmillan.

Gibson, R.L. & Mitchell, M. H. 2008. *Introduction to Counseling and Guidance*. New Jersey: Pearson Education Inc., Upper Saddle River.

Goleman, D. 1995. Emotional Intelligence: Why it can matter more then IQ. New York: Bantam Books.

Hamdani. 2011. Teaching and Learning Strategies. Bandung: Pustaka Setia. http://anwarholil.blogspot.com/2008/04/gambaran-umum-tentang-strategi-strategi. html

Hunt, G.H., Touzel, T.J. & Wiseman, D. 1999. Effective teaching: Preparation and implementation. Springfield, IL: Charles C. Thomas Publisher, Ltd.

Hunt, G., Templeman, E., Jones, J., Brewer, S., Baldwin, L., MacLennan, D. and Heaslip, P. 2009. *Evolving concepts of scholarship*: dilemmas for a new university. Society for Teaching and Learning in Higher Education conference. Fredericton, New Brunswick.

http://www.hariansumutpos.com/2009/10/strategi learning profesional.

http://pakguruonline.pendidikan.net/buku_tua_pakguru_dasar-kpdd_bll.html http://forum.upi.edu/v3/index.php?topic=16241.0\

http://indrazg.blogspot.com/2011/04/model-persiapan-mengajar-model-ropes.html Ivor, K. Davies. 2000. Management of Learning. Jakarta: CV. Hawk

Joyce, B., W.M. & Calhoun, E. 2009. *Models of Teaching*. New Jersey: Pearson Education, Inc., Allyn & Bacon, One Lake Street.

Kellen, R. 1998. *Effective Teaching Strategies Lesson From Research and Practice*. South Melbourne, Vic. : Thomson Social Science Press, 2007.

Kerlinger, F. 1986. *Foundation of Behavioral Research*. Eugene, Oregon: Holt Rinehart and Winston Inc. All RightReservet

Kerlinger, F. 2003. *Principles of Behavioral Research*. Interpretation by R. Landung Simatupang. Yogyakarta: Gadjah Mada University Press.

Kuswana, W.S. 2012. *Taxonomy of Cognitive Development of Thinking Variety*. Bandung: PT. Teens Rosdakarya.

Kuswana, W.S. 2013. *Taxonomy of Thinking*. Bandung: PT. Teens Rosdakarya.

Lohmay, I. 2009. Development of Learning Ropes As Alternative Learning Strategies in Higher Education. *Journal of Education "Human Humanizing the" Year VIII*, Number 2, December 2009 ISSN 1412-9930.

Majid, A. 2011. *Planning for Learning: Developing a Teacher Competency Standards*. Bandung: PT. Teens Rosdakrya.

Moore, K.D. 2005. *Effective Instructional Strategies From Theory to Practice*. Thousand Oaks, California: Sage Publications, Inc.

Nana Sudjana. 2000. *Basic and Teaching and Learning*. Jakarta: Sinar Baru Algesindo.

Presseisen. 2001. *Thingking Skill: Meanings and Models Revisited In Developing Minds: A Resource Book For Teaching*, Third edn, ed. A. L. Costa. Alexandaria, VA: ASCD Publications, 47-53.

Richard, D. & Ted Wragg. 1995. *Effective Teaching (Effective Teaching)*. Translated / adapted by: Anwar Jasin (1996). Jakarta: Grasindo.

Reigeluth, C.M. & Carr-Cheliman, A.A. 2009. *Instructional-Design Theories and Models Building a Common Knowledge Base (Volume III)*. New York: Routledge Taylor and Francis, Publisher.

Rusman. 2012. *Models of Learning Developing Teacher Professionalism*. Depok: RajaGrafindo PT Persada.

Setyosari, P. 2010. *Methods of Educational Research and Development*. Jakarta: Kencana.

Setyosari, P. 2014. *Creating an effective learning and quality*. (Jinotep Vol.1 1 October 2014). Malang:

Shoimin, A. 2014. 68 *Innovative Learning Model in 2013*. Curriculum Yogyakarta: AR-Ruzz Media.

Sugiyono. 2013. *Educational Research Methods: Quantitative Approach, Qualitative and R & D*. Bandung: Alfabeta.

Tene, D. 2002. Exploring Current Issues in Educational Technology using a Problem-Based *Approach to Instruction. Educational Technology*. 42 (1): 14-22.

Thobroni, M. 2015. *Teaching and Learning*. Yogyakarta: AR Ruzz Media.

Joni T. Raka. 1980. *How Students Learn On. Manuscript Penlok P3G Wave VII*. Jakarta: Dep. P & K.

Joni T. Raka. 1986. *Teaching and Learning Strategy, an Introductory Review*. Jakarta: P2LPTK Department of Education.

Joni T.R. 1993. *Teaching and Learning Strategy, an Introductory Review*. Jakarta: P2LPTK Department of Education.

Wattimena, Reza, A.A. 2013. *Critical Thinking with Pierre Boudieu*. Surabaya: Home Philosophy (Faculty of Philosophy, Widya Mandala Catholic University).

Westergaard, J. 2009. Effective group work with young people. New York: Two Penn Plaza. Willis, S.S. 2013. *Individual Counseling Theory and Practice*. Bandung: Alfabeta.

Yudiernawati, A. 2014. *Influence of Learning Strategies (Problem Based Learning VS Direct Instruction) and Style Cognitive Learning Achievement Application Against Nursing in Clinical Nursing Education*. (Unpublished Dissertation). Malang: Graduate UM.

Popsicle Simile: An Innovative Tool in Promoting Creative Writing among Rural Primary School ESL Learners

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Abstract: This qualitative study seeks to explore how "Popsicle Simile" works as an innovative tool of learning simile and writing creatively. Through lesson observations and interviews, this study aims to develop a fuller understanding of the motivations that drive teachers to adopt this innovative tool and the considerations they have when using it in the teaching and learning of core content. This study thus emphasizes the need to promote 21st century skills and academic content knowledge. Participants for this study were 5 primary school teachers in one of the rural primary schools in Padawan, Sarawak. The findings indicate that by engaging with the innovative "Popsicle Simile", learners are able to generate content through relevant lexical search and write coherent paragraphs in creative writing. It is also beneficial to ESL teachers and educators, as it can be as an alternative tool which can assist them in teaching creative writing. It is suggested that future research should include the perceptions of the pupils and English language teachers from other schools towards the tool as well.

Keywords: innovation, ESL learners, primary schools, creative writing, motivation

Innovation in teaching is helpful in providing adequate information as well as knowledge. Innovative materials are created for native learners of that language and it is used in the classroom to help learners to perform well in learning the language. Using innovative material is an alternative and untraditional ways of teaching which helps students to acquire an effective communicative competence in the target language. Moreover, the use innovative materials in ESL classroom benefit the teachers to bridge the gap between the classroom knowledge and students' participation in the classroom. It is not totally opposite of traditional class but it is a fun way to make the traditional classes more interactive and student-centered. Just as the curriculum evolves to include new knowledge and skills that students need for the 21st century, professional development for educators become critical to equip them as designers of exciting learning experiences. Teachers' preparation and professional development programs would require continual innovation to develop a generation of teachers who can actualize this vision (Hong & Kwek, n.d.). Effective and efficient learning materials need to be developed, implemented, and continuously improved. Research should be unremittingly performed to better understand the effectiveness of those innovative tools and their implications in the educational field. The focus of the present study was to investigate the effectiveness of using innovative materials to help EFL learners enhance their vocabulary and achieve better writing ability. The challenge remains how to best improve EFL learning and teaching. Furthermore, teachers' motivation on the use of innovative material is an educational tool for promoting creative writing among the young ESL learners. Those who study or learn English as a second language need a good production of material and practice in learning the second language.

LITERATURE REVIEW

Writing is likely to be a challenging task for ESL students who are easily bored with the conventional approach. While many educators today viewed that these learners are impossible to engage, game designers are solving with enviable success the dilemma that educators still grapple with: getting students to master something that is time-consuming and challenging, and derive pleasure from it (Hong & Kwek, n.d.). In Malaysia, students who are from rural areas and low socio-economy background will have trouble in writing as they seldom use English in their daily conversation and have limited access to English. In general, "writing is the skill that most Malaysian students are least proficient in" according to Chitravelu, Sithamparam, & Teh, (2005) as cited by (Zakaria, Yunus, Nazri, & Shah, 2016). Rather, many students, particularly adult learners, have a limited knowledge of English vocabulary words according to Chen (1998) as cited by Lee (2011).

Writing is an important area of literacy that supports comprehension, critical and innovative thinking over content areas and students needs a conducive environment to practice the habits and processes of successful writers. Writing skill plays a vital role for the instruction of second-language learners because it is not only an effective tool for the evolvement of academic language proficiency and a vital skill for academic success, but it also allows second language learners to enhance their perception of knowledge gaps (Warchauer, 2010). In the ESL classroom, the teacher tries to enable the students to be proficient in mastering the language skills; reading, writing, listening and speaking. As to facilitate above intention, materials, teaching aids, course plan, practice, evaluation, etc. are produced. Using appropriate materials can help the students to gauge their understanding of the lesson as well as to scaffold them during a lesson in the classroom.

One way of enhancing students' motivation and engagement to write is to provide opportunities for them to engage at a more meaningful level with the language through refocusing their writing classes to make them relevant to their social and cultural context as well as designing writing tasks which have meaning and interest to them and offer opportunities for social interaction and self-expression(Roschelle et al., 2006). As stated by Huang (2004) in Bamanger (2015), another difficulty that many language learners might face is their limited understanding of classroom lectures and materials. Literary texts such as poetry, prose, novels, short stories can help the teachers to approach the students with a humanistic touch (Murali, 2016).

Advantages of using innovative and interesting materials

Providing learners with suitable materials can scaffold learner's ability in developing language skills in the classroom. Therefore, when teachers are concerned with helping their students to develop reading skills, they should think about the methods of teaching being used and materials being taught to students (Rashid & Majid, 2014) In addition, teaching materials help to bridge the gap between the language being taught in the classroom and the language used by real people (Genhard, 1996).

In order for appropriate and situated methodology and learning to happen, tools need to be sufficiently flexible that they can be tailored to specific contexts for teaching and learning. Studies have shown that teachers with positive previous experience of self-access are much more likely to motivate their students to use it (Pickering & Gunashekar, 2015). Motivation is an essential element of successful language acquisition and is a dynamic process subject to continuous flux (Dornyei, 2001). Williams and Burden (1997) as cited by (Lo & Hyland, 2007) suggest that each individual L2 learner's motivation is influenced by both external factors

related to the socio- cultural and contextual background of the learner and internal factors related to the individual learner. Internal factors include the learners' attitudes towards the activity, its intrinsic interest, and the perceived relevance and value of the activity. As in as study done by Lira (2012), a proper classroom environment; teacher support and respect students' ideas; will make students become motivated to work with peers.

Furthermore, Yunus & Salehi (2012) stressed on the importance of integrating technology into a pedagogical tool in which it was a more student-centered approach. It is important to provide suitable tools to overcome students' weaknesses in writing creatively. The use innovative materials such as popsicle simile as an educational tool in learning can motivate learners especially the young learners in rural school to learn simile in a fun and meaningful way. Students can learn the real life experiences inside the classroom in which they can participate in making the materials based on their understanding of the lesson. The use of popsicle and pop –up simile book are some of the educational tools that teacher can use in the classroom to engage young learners in the 21st century learning environment.

Since no one single book will be totally embraced or rejected, teachers are given a lot of leeway to pick out any and all texts that they believe to be theme-appropriate, culturally relevant, and that match the target learners' current state of language development (Tseng, 2010). According to a study done by Harmer (1991) as cited by Belaid & Murray, (2015), he states that the use of authentic materials would improve and develop the learners‟ listening and reading skills in the target language, despite the heavy use of textbook materials. It is not important for teachers to define whether the materials are authentic or genuine materials rather teacher should be careful and attentive when choosing authentic materials for a particular classroom (Lira, 2012).

The advantages of using the innovative materials as an educational tools motivate teachers as they can curb the shortcomings of teaching creative writing among the ESL learners especially those in rural schools.

Objectives

1. To identify teachers' motivation in using innovative material (popsicle simile) in teaching creative writing.
2. To create fun and meaningful learning on similes among primary school ESL learners.

Questions

1. What motivate teachers in using innovative popsicle simile?
2. What are the advantages of using innovative material (popsicle simile book) in ESL classroom?

METHODOLOGY

The study took place in a rural primary (elementary) school in Padawan, Sarawak Malaysia where the researcher was teaching. This school was one of the low- enrolment primary schools in Padawan. This study involved 5 preservice ESL teachers who have been teaching for three to 25 years. Most of the teachers believe that the hardest part in teaching language art is for the students to write creatively. English was, however, a second language for the vast majority of the students in the class, and they were not, on the whole, fluent and confident English language speakers and writers. In writing, most of them showed a heavy reliance on rote memorization of essay types and reformulation of model answers. This study employs a qualitative design by collecting the data through observation and interview.

This study will be conducted during English Language subject during Language Art session as allocated by the Ministry of Education. The first step to this study was, the researchers had to get the teachers to get familiar with the materials. The use of pop-up book is

used for this mean. Due to a small number of students, the researchers found out the best solution for this matter was by using the pop-up simile book. The similes are taken from the textbook based on the topic taught for the day. Later, the students have to list their preferable similes in order to create a simple poem. This is to help the students to compose creative writing among them.

During the teaching and learning process, the researchers conducted observations for two times. This observation is using 'Yes' and 'No' indicators. The main focus of the observation were on; (1) students' participation and, (2) students' outcomes. (1) Students' participation focused on the how well the students master the language skill as stated in Standard Document KSSR, the students understand the concept of using simile in composing creative writing and they gave feedback on the lesson. As for (2) students' outcomes; the creativity of the students in composing are writing with similes learned and to be able to present their outcomes. The observation was using 'Yes' and 'No' indicators.

The researchers also conducted an interview for the teachers. The interview was done after the lesson or during recess time. This was to prevent any problems during intercession teaching and learning process. The interview was conducted informally to avoid partialities. There were six questions for this interview. The questions were as follow;

1. What do you think of today's lesson?
2. Do you think it is easy for the students to learn simile using the material?
3. Do you think the usage of popsicle simile interesting?
4. Did your students enjoy the lesson?
5. Did your students able to write simple descriptive writing using the popsicle simile?
6. Do you think the materials motivate you to use innovative materials in your ESL classroom?

The interviews answers were analyzed by identifying (1) teachers' motivation and (2) advantages of using the materials.

Sampling

Respondents are selected through purposive sampling. The study involved 5 pre-service ESL primary school teachers. All of them are experience pre service ESL teachers who have been teaching for 3-25 years.

Data Collection

The data is collected during and after the teaching and learning lesson. The skill for the targeted skill is taken from the Standard Document for KSSR; 4.3 By the end of the 6-year primary schooling, pupils will be able to plan, organize and produce creative works for enjoyment. Hence, the data for both instruments are based on the Content Standard in Standard Document KSSR stage two for primary school from Malaysia Education Ministry.

Data Analysis

Data analysis is document analyses which are divided into themes. The themes are (1) teachers' motivation (2) the advantages. The data is corresponding with RQ and RO.

FINDINGS AND DISCUSSION

The study was carried out on the third and fourth week of June during Language and Art for English Language subject. The findings below were based on two instruments which were observation and semi structured interview.

Observation - Students' Participation

Mastering the language skill for creative writing

The rational to have this lesson for the students is to get them to master the language skill as required in Standard Document of KSSR. During the lesson, it showed that the 4 students were able to master the language skill required. This was shown by (C1) how well the students participate in the class during the Q and A (Questioning and answering session). (C2) The students were able to apply the similes in for of list of words which were related with the topic taught for the week. The students also showed their passion in finding suitable similes in order to compose their very own creative writing. Another positive feature of the students' reaction to the new materials was that they saw more opportunities to voice their own thoughts and feelings. At this point the students are required to compose a poem based on their similes list. However, there is only one student who was having difficulties in using similes in her writing due to lack of vocabulary and she is not competent with the language. However, the result is amazing. (C3) Three of them managed to help their friends by finding the similes with meaning and sample of sentence. Their feedback for the lesson was encouraging and they like to do more on this particular skill.

Observation - Students' outcomes

For this area of observation, (C4) the students were able to create their own popsicles similes poem. (C5) They were also able to give comments to their friends' poem by rating them with similes and give their opinion on how to improve the poems.

Interview

The teachers interviewed by the end of the lesson, which was at the closure stage of teaching and learning process. Most of the teachers answered the question given based on their teaching in ESL classroom. This finding was supported by the interviews

What do you think of today's lesson?

4 out of 5 teachers gave almost the same answer to this question. They stated that it was an interesting lesson as suitable materials were used and the students participated actively during the lesson. The teachers also stated that the lesson was fun and interesting as their students can use similes to write creatively and the writing are more interesting to read However, one of the teachers believed that more similes should be introduced during the lesson using the materials.

Mr Paulus: The lesson was fun but the simile list inside the book is limited. Even the pupils asked the teacher to teach them how to make the pop up simile book.

Do you think it is easy for the students to learn simile using the material?

All of the teachers stated that it was easier for their students to learn similes as it can help to make the writing more interesting to be read. In addition, the teachers also mentioned that by applying similes in their writing, the students will get extra mark for sentence construct in their exam. According to one of the senior teachers, similes were challenging thing to be taught in the classroom. However, by learning it in a fun and entertaining way, the students had the

passion to produce more writing not only for poem but in other writing types such as short story and narrative story**.**

Madam Helena: This pop- up book makes it easier for the students to learn simile. I was having problem when I tried to teach them simile during previous lesson but..emmm.. Today I can see that the students were enjoying themselves making the popsicle simile.

Do you think the usage of Popsicle simile interesting?

All of the teachers thought that, by using interesting material in teaching simile, it does help the students to learn to write creatively. They also stated that the use of innovative materials using Popsicle can be applied in teaching other language skills especially grammar. One of the teachers, Madam Gita said that "… I think we can use this to teach antonym also…"

Did your students enjoy the lesson?

All of the teachers mentioned that their students enjoyed the lesson and some of the students were asking the same activities to be done during next lesson. The teachers also stated that they prefer to have hands-on activities with the students so that they can understand the topic better especially in language art and creative writing. Miss Pammy, who teach Year 2 classroom mentioned that even the low learner students can write simple shape poem using the popsicle simile.

Miss Pammy: *This material is colorful. My weak student participated actively during the lesson. They wanted to do the activities again.*

Did your students able to write simple descriptive writing using the popsicle simile?

4 out of 5 teachers stated that their students gave positive feedback in learning the similes. According to the teachers, the students enjoyed making the popsicle simile using the colorful and at the same time looking at the pop up books. The Year 5 teacher also mentioned that their students can compose a simple poem from the popsicle simile that they had done. The teachers also found the task was challenging and it was such a great fun for their students to explore more about similes.

Do you think the materials motivate you to use innovative materials in your ESL classroom?

All of the teachers agreed that they felt motivated to use the popsicle simile as a tool to teach creative writing. One of the teachers admitted that she was having problem when teaching creative writing to the Year 3 students. But when she used the materials in the classroom, her students participated actively and they can write simple poem using the materials. She felt motivated to use the material and will try to adapt the material for other language skills.

LIMITATION & RECOMMENDATION

The present study on using authentic materials at tertiary level has several limitations. First of all, the total number of sample is very small. If there were more population then the result could have been more valid. Moreover, the study is done with 5 pre-service ESL teachers in a rural primary school. The survey could be done with the teachers of other schools as well. It could also focus on students' perspectives on teachers' use of authentic material in classroom. The review of related literature in this paper contains a number of fruitful ideas that allow attention to focus on the following implications 1) teachers should encourage students to play an active role in the learning process; 2) instructional materials should be based on multiple strategy approach such as 'reciprocal teaching'; 3) teachers can make a good use of social technological tools to teach the culture of the target language.

CONCLUSION

Although some of the findings of the study were quite unexpected, they were considered by the researcher to provide support for incorporating suitable materials for writing creatively based on these young students' life experiences into their classes. English teachers at primary school need to have the expertise to engage their students with delightful experiences of studying a second language in general and reading and writing in particular. Learning to read and write are the indispensable educational achievements in the primary school pupils. Reading and writing are closely related and are the gateway to learning productivity in today's digital age. With the appropriate reading and writing materials, a conducive environment, and teachers with adequate educational qualifications, good reading skills will help produce pupils who perform well in other subjects. By using appropriate tool for teaching creative writing, students can engage in the lesson actively.

*Note:

All names of individuals discussed here are pseudonyms

REFERENCES

Belaid, A.M., & Murray, L. 2015. Using Authentic Materials in the Foreign Language Classrooms : *Teacher Attitudes and Perceptions in Libyan Universities*, vol. *5,* no. 3, pp 25–37.

Hong, S., & Kwek, D. (n.d.). Innovation in the Classroom : Design Thinking for 21 st Century Learning, 2011.

Lee, H. 2011. Using Picture Books in EFL College Reading Classrooms, vol. 1, pp 66–77.

Lira, B.J. 2012. Using Authentic Materials in Esl Classroom.

Lo, J., & Hyland, F. 2007. Enhancing students' engagement and motivation in writing: The case of primary students in Hong Kong. *Journal of Second Language Writing*, *16 (*4), 219–237. http://doi.org/10.1016/j.jslw.2007.06.002

Murali, M. 2016. Role of Short *Stories in English Language Teaching : An Emphirical Study*, vol. *3*, no.2, pp. 89–91.

Pickering, G., & Gunashekar, P. 2015. *Innovation in English Language Teacher Education*. *Innovation in English Language Teacher Education*. Retrieved from http://www.britishcouncil.in/sites/britishcouncil.in2/files/tec14_papers_final_online.pdf#page=275

Roschelle, J., Patton, C., Schank, P., Penuel, W., International, S.R.I., & Park, M. 2006. *CSCL and Innovation : In Classrooms , With Teachers , Among School Leaders , In Schools of Education Challenge : The Imperative for Innovation in Schools*, pp. 1–8.

Yunus, M., & Salehi, H. 2012. The Effectiveness of Facebook Groups on Teaching and Improving Writing : Students ' Perceptions, vol. *6,* no. 1.

Zakaria, S.M., Yunus, M., Nazri, N.M., & Shah, P. M. 2016. Students ' Experience of Using Storybird in Writing ESL Narrative Text, pp. 2107–2120. http://doi.org/10.4236/ce.2016.715210

The Analysis of Drawing Outcome that Made by Male and Female Children of Low Class in SD Negeri Dinoyo 4 Malang

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Abstract: The study to the free draw aims to describe drawing characteristic that made by male and female children which include many things related to the drawing theme, object, color, child painting style, and child fine arts composition. This research used qualitative descriptive approach in words, where it used data source of drawing outcome of low class students that support research focus. Data analysis was conducted by data reduction, data display, and data verification. To check data validity, it was conducted through theory triangulation. Research steps that used were preparation, research step, and report arrangement. Based on the collected data, it was obtained research findings as follow: male and female children tend to draw about nature theme of "mountain view". And then male children tend to draw about transportation theme because of role and activity that carried out by male children. Male children play robot, car toy, shoots which lead to the aggressive activity. Object that drew by male children such as (1) mountain; (2) car, for female children such as (1) mountain, flower; (2) human. Complement object of male children such as car, human, ship, flag, and for female children such as flower, butterfly, heart shape. Most of visualization for male and female children drawing color was almost the same used blue and green color. Color to the female child drawing outcome mostly was pink in every displayed drawing. Child painting style to the research result was found the difference.

Keywords: analysis, the outcome of boys and girls picture, low class, elementary school

Children learn the gender roles through imitation or observation by seeing what the adult saying or doing (Santrock, 2002:282). According to Supriaji and Siskel (in Amelia, 2013) gender is a social role where boys and girls roles are determined. In accordance with Sobandi (2012) a boy or girl has a character and phase of children development at school age (6-12 years). Based on types of gender is known that boys are more doing aggressiveness, activity, domination and impulsive (fast acting) in their behavior. As for girls is much doing the curiosity, but girls have verbal capability (which has good interaction skill with the environment) better than boys. The experience was obtained by researcher when the researcher taught extracurricular art painting in SDN Dinoyo 4 Malang. The outcomes are known that boys picture are different from girls picture. The tendency of boys picture was transportations object and the girls was drawing flowers. This shows us, there are the difference the picture outcomes that are constructed by gender difference. Therefore, the researcher did research with the title "The analysis of picture outcome boys and girls on low class at SD Negeri Dinoyo 4 Malang". The focus of this research is How is the characteristic of picture outcomes of boys and girls on low class in SD Negeri Dinoyo 4 Malang, especially in the theme, object, color, painting style of children, and picture composition of children?

METHODE

This research had been conducted for 2 months in SDN Dinoyo 4 Malang. The type of study in this research is Qualitative research. The researcher used this approach to know the characteristic of picture outcomes of boys and girls on low class in SDN 04 Dinoyo Malang, so that can be analyzed and examined descriptively in words form. Presence of the researcher in SDN 04 Dinoyo Malang was to encompass and collect the research data. The researcher also has a role as interpreter that is person who interprets data such as picture outcome of student. The main resource of data on this study is student outcomes on low class, those are class I, II, and II at odd semester 2015/2016.

The data collection is using *purposive* sampling. On this research, the outcomes of free drawing were selected by theme in order to be easy in the process of analysis. They were analyzed by theme, object, color, style of child's painting, and composition of students' picture. The election of picture, based on sub variables theme with indicator themselves, world of animal theme, environment theme, public place theme, transportation theme, cartoon figure theme and natural events theme.

The outcomes of image beyond the theme, were not used as resource of data. Checking data validity on this research used triangulation theory. Some theories which are used on this study are: (1) expressive free drawing. This theory is used as fundamental to connect the outcomes of image on some picture theme because the data resource is result of free drawing low on student. (2) Image of students theory. (30) Object of image theory. (4) Color theory. (5) theory of students painting style. (6) Theory of composition of student fine art. (7) image per iodization of student. (8) Characteristic of low students. And (8) gender theory. From some perspective of the theories, they will be obtained knowledge more complete about study which is researched.

RESULT AND DISCUSSION

Characteristic Theme On The Picture Outcomes Of The Students.

The variety of themes is visualized by children into their drawing. Theme is a heart expression or the essence of story which is drawn by children. While title is a sentence which delivers image enjoyer in the story that made through image (Sumanto, 2013: 59). Environment is closest object of children. Children see the mountain, around home, school and see seascape from their experience then poured into drawing.

On the results are found the tendency theme which is drawn by boys and girls. The boys tend to draw the environment theme. The diversity titles those are the scenery of mountain, sea and around home, then transportation themes those are with variety title of the tanker, car, ship, Vespa motorcycle. Another theme are Naruto, favorite cartoon of boys, who is full of running activity in the scene, jumping and fighting with his power, stance thousands shadow. The orientation of that activity is liked by boys. Next, theme their selves entitled skull that is scary. Animal theme (bird), and natural events theme. Meanwhile, the image theme of girls tends to same of boys drawing. The tendency is drawing environment but it have difference title that is drawn by girls. At this theme is classified again. The scenery of mountain is more tend to drawn by girls, then flowers, seascape and nature of around home. Next is their selves theme that has variation entitled my home, I, my friends and I, and my family.

It also has been found world animal theme by tending to Butterfly, fish and jellyfish, goat. Animal that was drawn by girls was smooth animal and colorful, public place theme with

restaurant visualization which is influenced by experience of children and their environment and imaginative theme with image of visualization. Below is the discussion.

By: Shakira Annora By: Jupiter By : Vania Akhnaf

Result of boys and girls picture tend to draw nature around that is mountain. This is cleared by Fsher (cited in Sobandi, 2012) that in general girls draw scenery which is completed by animal, plant, flower, building, people and sun. Meanwhile, boys draw war situation, car, boat or cartoon. Look likes picture below:

By: Danda Perdana By: Bimo Panji

On the pictures above are boys drawing with theme marine transportation and land transportation. The visualization of transportation theme which is drawn by boys are their role. Boys tend to more aggressiveness, activity, domination and impulsive (fast acting) in their behavior. The activity that was done by boys is such as game. The boys play robot, cars, shooting lead to aggressive activity, are dominated by running activity, hiding on shooting game that demand to fast moving. They sometimes do the racing car game individually and do the challenging game. While girls are more do curiosity behaviors, but the girls have verbal capability (good interaction skill with the nature around) than boys (Lamb, 1986 in Santrock 2002). Therefore, on the result of girls' picture did not found transportation theme but nature theme with the title flower. Girls have good capability that is drawn in the images, so their selves theme tends to the picture outcome of girls after nature around, like picture as follow:

By: Evita By: Luna

The girls have good verbal capability on language and the way to speak because the habit that is played by girls in their environment, so it is poured on girls' picture in them theme with the title my friends and I. According to Sobandi (2012) girls are more doing curiosity behavior. The girls tend to give dolls to play at children age and when they are old enough. Indirectly, a girl has curiosity behavior and keeps his sister or brother fully to not cry, by letting to talk or making the baby smile. This is cleared by Baumrind (in Santrock 2002), the girls are pushed to be more clever to nurture and more emotional than boys.

The Object Characteristic on Children Picture Outcomes

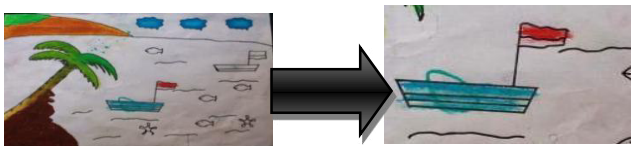
Object is a form which appears on the result of the picture. A thing is able to called picture if it has object. The object of image of children likes as environment, mountain, sea, cartoon figure and so forth. The main object which is drawn by boys those are (1) mountain (2) transportation, the visualization of tanker, car and ship. Then the others are visualizing the figure of cartoon, Naruto, and visualizing the imagination creature those are saver, skulls, birds and a fish with volcanic eruption object. The object picture of boys describes situation of war, car, boat and cartoon (Fisher, 1978: 5 in Sobandi 2012).

By: Zidan By: M.Firman By: Razel

Then the tendency of main object of girls' picture (1) mountain (3) animal (butterfly, fish) and found a little of cartoon figure like fairy, restaurant building object. While most of complement object on the result of are sun, cloud, house, highway. Being different in complement object on the result of boys and girls picture are: boys draw the complement object such as human, car, and flag. While girls draw the complement object such as flower, butterfly, and heart. The researcher found the complement object on the result of boys' picture in low class at SDN Dinoyo 4 Malang as follow:

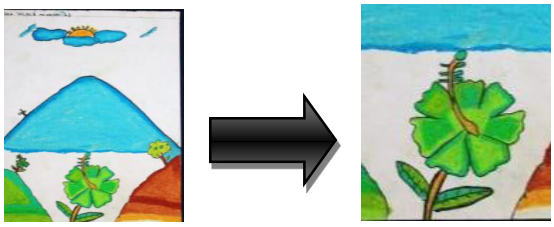
By : Zidan

By: Danda Perdana

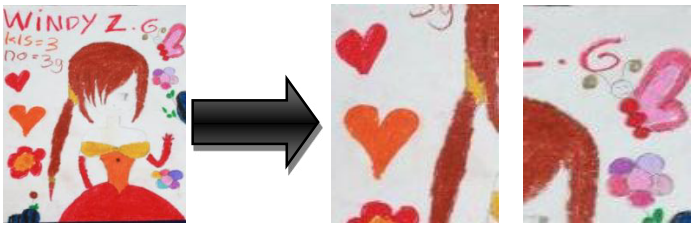


By: Kresna

The depiction of complement object car, flag, human and boat are the objects that is often played by boys in their daily life who plays toys car, war game and etc. Then the complement object which is drawn by girls as follows.



By: Lina



By: Windy

On the things that is used to draw the complement object which is played by girls, softer than boys. The girls are full of feeling that is showed at the complement object: heart form, butterfly and flower. According to Lamb (in Santrock, 2002) the characteristic can be formed from the environment, the character of children is adopted from the environment or imitation from the adult. The girls are accustomed to look their mother do the activity such as watering, planting flower and get affection from their mother. Therefore, depiction of flower form and heart form are adopted by girls in their image. The depiction as expression what they are felt and what they are remembered.

The characteristic of color on the result of children image

The characteristic of color from the result of research, the color which is used by boys and girls almost same, tends to blue. But it has difference both of them. The tendency of color is on the result of boys and girls picture. On the boys picture tend to blue, yellow, green, orange, and black. While on the result of picture of girls tend to colorful (blue, yellow, green, red, orange, purple, and bright red. Using blue is on the boys picture, blue is primary color or basic color. This color if psychologically, color is emotional and egocentric (Akmal, 2006). Both of these character are most commonly found than boys. The using color on the picture outcome of girls also tends to green then blue. Such as the result of research that is cited from A study in cColour Preferences of School Children by F.S and S.E kalts (in Darmaprawira, 2002) as follow:

The research is showed that color is liked by most of student, both of pre-teen or post-teen are blue. The color is liked by a third of sample and almost a half of each group. Red is second color which is liked by them and a third is green.

But on the result of picture from girls was found bright red on every pictures from children as follows.

By: Keiza By: Nurul By: Dewi Aisyah

By: Kanata By: Aisya By: Rahma

Color psychology based on Akmal (2006:81) color has many meaning accordance with daily experience or a certain events that negotiate the color to the certain feeling. Color can give impact to the feeling, behavior, and condition of physic of human. The bright red (*feminism, romantic, sensual*) easily, describe the surface of material which is soft. The bright red is identical with woman or *feminism* character. The bright red obtains many white colors which describes gentleness, smoothness, sensitive and romantic.

The Characteristic of Painting Style of Children

The characteristic style of children paintings in the research are obtained the differences of painting style between boys and girls that is caused by role and activity of children. A boy or girl has character and phase of children development at school age (6-12). The painting style, which is visualized by boys, tend to use *organic* style, then *lyrical* style, *comic* style, *structural form* style, *expressive* style. While on the girls' painting tend to *lyrical* style, then decorative, portrai, *structural form, rhythmical pattern*, organic and expressive style.

According to Sumanto (2013) *organic* style is image that includes in the type of visual picture (children who have the sharpness to feel an object and the their environment through sense of sight). Organic style is drawing style which has dynamic impression or moving. The influence of activity of boys through the result of their image is based on the gender. Being known that boys are more doing aggressive-ness, activity, domination and impulsive (fast acting) in their behavior. So, on the result of the picture also appears moving impression or dynamic. On the image, there is smoke of vehicle which causes car in the motion. Smoke which go off from muffler, back and upper part, are very support to the smoking impression the image so the image looks like a living.

Lyrical style is a style that tends to appear in the image of girls. Lyrical style is style on the visual type which is identical with static impression. As appearance on the picture above, the image shows mountain object and highway without motion impression. It looks like static without activity anything and doesn't look any complement object which is support the picture to be silent (Sumanto, 2013).

The Characteristic of Fine Art Composition of Children

The composition is a arrangement in the image. On the picture of children also have special composition every individual. The composition picture of boys and girls are more using

stereotype composition, and then a half of others draw with composition that focus on the basic line, rebahan style and *x–ray.* As on the picture below.

By: Rohma By: Nanda By: Trianti

The composition of stereotype image is the arrangements elements that are repeated with monotonous size. This symptom is called stereotype. On the periodization of drawing of children at low class age I, II, and III include in the time chart at 7-9 years. Time chart is the time where children have to know the simple perspective that is rebahan perspective. In this age, drawing becomes as play facilities and tells the story about the hero, and the children can catch the object detail, also this time is marked by stereotype or repetition forms because they are joy to forms that can draw their attention. Children forget to observe the real condition it causes they are drawing unconscious with repetition (Pamadhi, 2009:10.39).

CONCLUSION

The result of the research and the discussion of the picture outcome which is made by boys and girls in the low class at SDN Dinoyo 4 Malang can be drawn the conclusion as follow: the characteristic theme that is expressed by boys and girls students at low class in SDN Dinoyo 4 Malang most of their theme is about nature around that is mountain scenery which is drawn by varies with two twin mounts, three mounts event five twin mounts. Even though in the images were found the difference theme which is drawn by boys and girls students. Boy students choose nature around theme tend to scenery of mountain, then transportation theme, cartoon theme, and a little of others with themselves theme, animal (birds), natural events theme.

The theme that is chosen by girls students is nature around theme with scenery of mountains, flower, a half of little of them with seascape and scenery around house. Next the children draw with yourself theme, world of animal theme with tendency animal (butterfly, fish, jellyfish and goat), a few of the other with public place theme, cartoon theme.

The tendency of image object is expressed by students consist of: main object in image of boys students (1) mountains (2) transportation that is visualizing image of figure of cartoon, Naruto, and visualizing imagination creature those are saver team, skull object, bird and a picture of fish and volcano. Then the tendency of main object which is drawn by girls students (1) mountain, flower (2) human (3) animal (butterfly, fish) and a little of them was found figure of cartoon that is fairy, object of restaurant building. While the complement objects on a half of the result of research are sun, cloud, house, and highway. That becomes differences in the complement objects of boy students are human, car, boat, and flag. While girls student with complement object like flower, butterfly, heart shape.

Commonly, color visualization of boys and girls picture are almost same, that is blue, then the color which is visualized on the result of boys and girls picture are green and blue. While bright red, although this color does not become main color, has the tendency to appear in every objects of the result of girls images.

The painting style of children on the result of research had been found that there are differences. The painting style of boys is visualized by using organic style then lyrical style, and a few of it use expressive style, structural form style, and comic style. While in the painting

style of girls picture tend to lyrical style, then decorative style and a few of it use portrait style, structural form, rhythmical pattern, organic and expressive style.

Most of composition of boys and girls fine art in low class SDN Dinoyo 4 Malang more tend to stereotype composition then a few of it draw with composition that focus on basic line, decorative, rebahan and *x-ray.*

Suggestion

Based on the gap of expectation this study can be given suggestion to the teacher as follows: for the teacher, they can give knowledge about the equality of gender in the learning process in order to the concept of equality gender between boys and girls student are built. The expression of student is important of the student development. Therefore, teacher cannot limit the expression and imagination of student in order to the development of the student is not late and the expression of student can be realized well. The result of student image is original which has style and composition itself in accordance with periodization of children fine art. Therefore the role of teacher is a facilitator without teaching technique because the technique will poison and lethal the children creativity.

REFERENCES

Akmal, I. 2006. Menata Rumah dengan Warna. Jakarta: P.T Gramedia Pustaka Utama.

Darmaprawira, S. 2002. *Warna teori dan kreativitas penggunaannya.* Bandung: ITB.

Garha, O. 1980. *Pendidikan Kesenian Seni Rupa Program Spesialisasi I*. Jakarta: CV Angkasa.

Garha, O. 1980. *Pendidikan Kesenian Seni Rupa Program Spesialisasi II*. Jakarta: P. T Gramedia Jakarta.

Hume, H. D. 2011. Panduan untuk Guru Kesenian Sekolah Dasar dan Menengah. Jakarta: PT. Indeks.

Monk, et.al. 2006.*Psikologi Perkembangan.*Yogyakarta: Gadjah Mada University Press.

Pamadi, H, et. al. 2009. *Pendidikan Seni di SD.* Jakarta: Universitas Terbuka.

Santrock, J.W. 2002. Edisi ke lima *Life – Span Development* Perkembangan Masa Hidup jilid 1. Jakarta : Erlangga.

Sobandi, B. 2012. Mengenal Perkembangan Artistik Siswa Sekolah Dasar. (online).(mengenal_perkembangan_artistik_sekolah_dasar_(Materi).pdf).

Sobandi, B. 2012. Mengenal Perkembangan Seni Rupa Anak-Anak. (online).(mengenal_perkembangan_seni_rupa_anak-anak_(materi).pdf).

Sumanto. 2011. *Pendidikan Seni Rupa di Sekolah Dasar.*Malang: Fakultas Ilmu Pendidikan Universitas Negeri Malang.

Sumanto. 2013. *Estetika Gambar Anak Sekolah Dasar.* Malang: Fakultas Ilmu Pendidikan Universitas Negeri Malang.

The Development of Inquiry-based Teaching Model to Enhance Critical Thinking Abilities on Circles in Junior High School

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Abstract: This study aims to develop inquiry-based teaching model that can enhance students' critical thinking abilities. The teaching model was developed through four stages, namely: (1) Preliminary Investigation, (2) Design, (3) Realization, and (4) Test, Evaluation and Revision. Teaching model developed consisted of five components, namely: (1) the model purpose, (2) syntax, (3) reaction principle, (4) social system, and (5) support system. The model purpose was to enhance the critical thinking abilities. Syntax of inquiry-based teaching model consisted of six phases, namely: (1) Confronting problem, (2) Asking conjecture, (3) Collecting Data, (4) Formulating explanation, (5) Explaining conclusion, and (6) Conducting Reflection. The principle of reaction was to provide technical assistance, ask for a review, and provide feedback. The social system emphasized cooperative learning, the medium social structure, and discussion. Support system included learning instruments as well as the tools and materials supporting the model. Development of teaching model was expected to meet the criteria of validity, practicality, and effectiveness. The study also developed research instruments in accordance with the purpose of research. The results of expert assessment showed that the teaching model developed meet the criteria of validity with a value of 3.22 and can be implemented in the field. Field test did twice in SMP Negeri 2 Bojonegoro in a different class because an enhance students' critical thinking abilities at first test less significant, although the model was already practical. The result of teaching model realization was 3.12 so it can be said that the teaching model meets the criteria of practicality. The result of t-test analysis of the students' critical thinking abilities showed a p-value of 0.028. This meant that there has been an increase in students' critical thinking abilities significantly. The response of students to teaching model was positively associated with the percentage of 73.77%. Result of the assessment of student activity during the learning of 3.07 was included in the active category. Based on these things can be said that the inquiry-based teaching model has enhanced students' critical thinking abilities effectively.

Keywords: development of teaching model, inquiry, critical thinking, circle

In order to meet the golden generasion 2045 is projected to be a gift for the 100 years of Indonesian independence; education development policy has focused on efforts to prepare the future generation that has XXI century competences. As formulated in the 21th Century Learning Partnership Framework, XXI century competences man, among others: creativity and innovation, communication and collaboration, as well as critical thinking and problem solving [1]. All the competencies required of future generations to be able to compete in the modern world where the working and living environment is becoming increasingly complex. One goal is to show the attitude of learning mathematics logical, critical, analytical, meticulous, responsible, responsive, and does not easily give in solving the problem.

Critical thinking abilities students should possess. Students who have the ability to think critically will tend to respect and respect for others [2]. Critical thinkers also will not take it for granted way of doing things simply because during this time that was the way to do it and they

did not think a statement is true only because others justify it [3]. Characteristics like these are essential for the future generations who live in the modern world.

One model of learning that is expected to be able to train and improve critical thinking abilities is inquiry-based teaching model. Inquiry-based teaching means learning that involves the activities of inquiry in it. Inquiry is the act of collecting information about something. Victor and Kellogg explain that the inquiry is a process to answer questions and solve problems based on a logical test on facts and observations [4]. States that the inquiry is a process to formulate questions, cultivate ideas, explore and evaluate information, analyze data, and discover relationships and conclusions [5]. Inquiry-based teaching emphasizes the process of thinking critically and analytically to seek and find their own solution of a problem posed [6]. Inquiry-based teaching involves students actively to seek answers to questions or problems. Inquiry-based teaching model in this study meant as a guide for designers and educators which contain a series of systematic procedures for planning and implementing learning activities that involve formulating questions, finding information, process ideas, analyze data, and draw conclusions to solve the problem.

Their models and inquiry-based teaching tools are expected to motivate and direct the learning of mathematics oriented to building critical thinking abilities. Based on these explanations need to develop a Teaching Model that involves the activities of inquiry to enhance students' critical thinking abilities in learning mathematics. Furthermore, researchers will conduct research on "The development of inquiry-based teaching model to enhance critical thinking abilities on circle in SMP".

Thinking is a mental activity to help solve a problem, make a decision, or to meet the desires of curiosity [7]. Thinking as a mental activity is classified into several levels according Krulik and Rudnik described as follows:

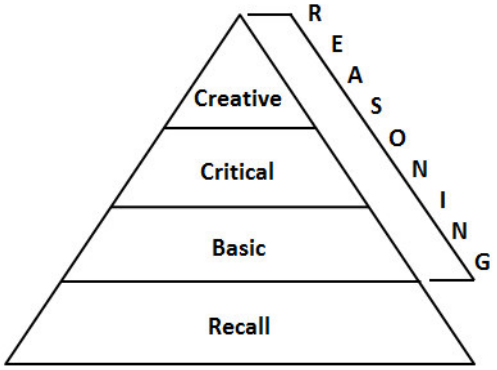

Figure 1 Hierarchy of Thinking

The third level of thinking is critical thinking. Krulik and Rudnick explains that critical thinking involves: Examining, relating, and evaluating all aspect of a problem; focusing on parts of a problem; gathering and organizing information; validating and analyzing information; remembering and associating previously learned information; determining reasonableness of an answer; drawing valid conclusions; and analytical and reflexive in nature [8].

Ennis classifies the ability of the principal of an ideal critical thinker into five ability groups, namely: elementary clarification; basic for decision; Inference; advanced clarification; and supposition and integration. The fifth group of critical thinking abilities is translated into twelve critical thinking abilities [9].

Based on twelve indicators of the ability of the critical thinking appears that rational thinking and reflective thinking cannot be separated in discussions about critical thinking. Skemp describes the process of reflective thinking consists of: (a) use any information or data that comes from within, (b) explain what he has done, (c) to realize the mistake and correct it

(if any), and (d) to communicate their ideas with symbols or pictures [10]. Indicators of critical thinking abilities that are used in this study refer to the opinion of Ennis and Skemp. Indicators of critical thinking abilities is to elementary clarification, basic for decision, inference, describe the conclusion, and revisiting.

Critical thinking abilities that a person has not acquired directly but need a process to train and develop these capabilities [11]. One model of learning that can be used to train students' thinking abilities in math is the inquiry training model. Inquiry Teaching Model training gives students the opportunity to invent freely, but in a disciplined way. At the beginning of inquiry training, the teacher presents to students a perplexing problem or incident. Students will naturally be motivated to solve those problems. The process towards completion can be used as an opportunity to teach the disciplinary inquiry procedure to students Inquiry learning model training gives students the opportunity to invent freely, but in a disciplined way.

However, inquiry training has some weaknesses in its application. The dominance of teacher in inquiry training is huge during the learning process. Joyce and Weil said that the inquiry training models can be quite highly structured with the social system largely controlled by the teacher; they have seen it used successfully with kindergarten children and encounter difficulty with third grades [12]. This high structured social systems less suited to the characteristics of junior high school students who began formal commissioning phase in cognitive development.

Syntax inquiry training mentioned their phase process and formulates an explanation. However, in the description of the syntax explanation of inquiry training is not mentioned in writing explaining the conclusions contained their activities. Whereas describe the conclusion of activity is an important part in order to train students' critical thinking abilities.

Teaching model in this study emphasizes the critical thinking abilities of students. The teaching model is designed with the needs analysis, inquiry training model analysis, and the development of learning models. Inquiry-based teaching model that was developed is a modification of inquiry training. The modified form of the activity lies in the addition of explaining the conclusions in the five phases of inquiry training. The whole series of activities in inquiry-based learning model mathematics is expected to train students' critical thinking skills. Activities of teachers and students in inquiry-based learning model to improve critical thinking abilities outlined in the following table 1 below

Tabel 1 Inquiry-Based Teaching Model to Enhance Critical Thinking Abilities

Phase	Teacher Activity	Student Activity	Critical Thinking Abilities
1 Confronting Problem	Provides an introduction to the material to be studied	Pay attention to the teacher's explanations	
	Presenting the initial problem	Observing the initial problem	
2 Asking Conjecture	Asks the students to write down conjecture	Asking conjecture or questions regarding the initial problem or concept to be studied	elementary clarification
3 Collecting Data	Guide and motivate students to do inquiry activities	Doing activities inquiry Recording the data obtained in the table	basic for decision
4 Formulating Explanation	Asking students discusses the answer of the question in a group discussion	Drawing conclusions based on the data obtained Answering the question of discussion Resolving problems early	inference
	Reminding students to revisit the work group	Revisiting the results of the work	revisiting

Phase	Teacher Activity	Student Activity	Critical Thinking Abilities
5 Explaining Conclusion	Setting the course of the presentation	Presenting the results of the work group Responding to another group presentations	describe the conclusion
6 Conducting Reflection	Inviting students to jointly reflect activity during the learning process	Delivering concepts or knowledge acquired during the learning	revisiting

RESEARCH METHODOLOGY

The subject of the trial is a class VIII-A and VIII-B SMP Negeri 2 Bojonegoro Academic Year 2015/2016. The instrument used in this study to assess teaching models and devices to collect data validity, practicality, and effectiveness of learning developed. The research instruments developed consists of three types, namely: validation sheets, observation sheets, and student questionnaire responses. This study uses a model of development that has been modified plump. This model consists of four stages of development, namely (1) early investigation, (2) design, (3) the realization, and (4) test, evaluation, and revision. Teaching model development and teaching instruments in this study can be illustrated schematically as shown in Figure 2

The analysis was conducted to assess whether the prototype models and teaching instruments have met the criteria of validity. The formula used is as follows:

$$K_i = \frac{\sum_{j=1}^{n} V_{ji}}{n} \quad \ldots\ldots\ldots\ldots\ldots\ldots(1)$$

Where K_i is average criteria to-I; V_{ji} is score validator assessment criteria j for all I; and n is number of validator. The criteria for the validity of the model and the quality of the learning device shown as follows:

$4 \leq \overline{K} < 5$: Very Valid
$3 \leq \overline{K} < 4$: Valid
$2 \leq \overline{K} < 3$: Less Valid
$1 \leq \overline{K} < 2$: Not Valid

Criteria for the quality of the model and the learning device is said to meet the aspect of validity if the average total valid votes of at least validator.

The analysis below was conducted to assess whether the prototype model and teaching instruments have met the criteria of practicality. Practicality is a model that describes the quality criteria realized teaching model. Data practicality obtained from observation sheet realized models. The formula used is as follows:

$$K_i = \frac{\sum_{j=1}^{n} P_{ji}}{n} \quad \ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where K_i is Average criteria to-I; P_{ji} is score assessment observer j for the activity of all I; and n is number of observers. The criteria for quality and practicality of the model learning device are shown as follows:

$3{,}5 \leq \overline{K}$: Very good
$2{,}5 \leq \overline{K} < 3{,}5$: Good
$1{,}5 \leq \overline{K} < 2{,}5$: Less good
$1 \leq \overline{K} < 1{,}5$: Not good

Criteria for the quality of the model are said to fulfill aspects of practicality if the average value of total minimum realized well.

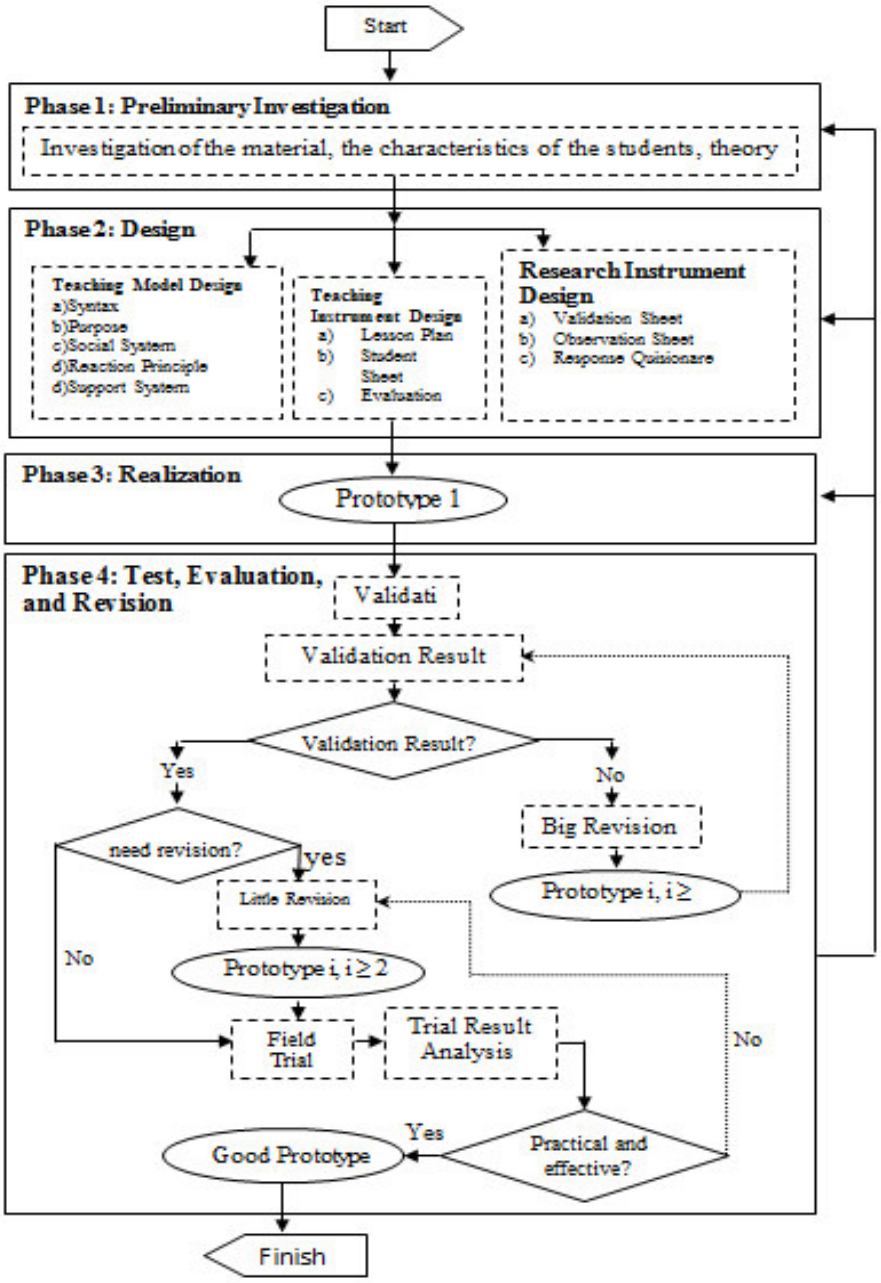

Figure 2. Learning Development Flowchart that modification of Tjeerd Plomp

The effectiveness of the model is measured by three indicators, namely: critical thinking abilities, student activities and student responses. In data analysis critical thinking abilities, criteria for the quality of students' critical thinking abilities are as follows:

$3{,}5 \leq A$: Very critical
$2{,}5 \leq A < 3{,}5$: Critical
$1{,}5 \leq A < 2{,}5$: Less critical
$1 \leq A < 1{,}5$: Not critical

Criteria for the quality of students 'critical thinking abilities are said to fulfill aspects of effectiveness if the score students' critical thinking abilities in classical minimal critical. In data

analysis of student activity, criteria for the quality of student activity during the learning with inquiry-based teaching model are as follows:

3,5 ≤ A : Very active
2,5 ≤ A < 3,5 : Active
1,5 ≤ A < 2,5 : Less active
1 ≤ A < 1,5 : Not active

Criteria for the quality of student activity is said to fulfill aspects of effectiveness if the average score for the entire active minimal activity. In data analysis of student response, calculating the percentage of the value of student responses from the response value of each answer with the formula:

$$\%NRS = \frac{total\ NRS}{NRS\ maksimum} \times 100\% \quad \ldots\ldots\ldots\ldots\ldots\ldots(3)$$

Where *NRS* is the value of student response; total *NRS* equal to *NRSS* + *NRS* + *NRS TS* + *NRS STS;* and *NRS* maximum equal to sum of responses times the best option score.

Result

This study focuses on the development of inquiry-based teaching model is valid, practical, and effective way to enhance students' critical thinking abilities. Besides teaching model, this development also resulted in the learning device in accordance with inquiry-based teaching model on circle. Activities undertaken during the research and development will be discussed in this section. The discussion includes the process and results of the development of research instruments, teaching instruments, and inquiry-based teaching model to obtain a valid model of learning, practical, and effective.

1. Development of Research Instruments
   a. Instrument Validation of Model

      The average value of the validity of the instrument validation teaching model is 3.43, this means that the instrument validation model developed included in the category of very valid. While the value of instrument reliability validation of the model of 0.90, this means that the instrument validation model developed included in the category of high reliability.

   b. Instrument Validation of Lesson Plan

      The average value of the validity of the instrument validation RPP is 3.38, this means that the instrument validation RPP included in the category of very valid. While the value of instrument reliability validation RPP by 0.87, this means validation instrument developed lesson plans included in the category of high reliability.

   c. Instrument Validation of Student Activity Sheet

      The average value of the validity of the instrument validation LKS is 3.42, this means that the instrument validation worksheets included in the category of very valid. While the value of instrument reliability validation LKS 0.89, this means validation instrument developed worksheets that are included in the category of high reliability.

   d. Observation Sheet of Model Realization

      The average value of the validity observation sheet of model realization is 3.50, this means that the observation sheet included in the category of very valid. While the reliability value of observation sheet of model realization 0.92, this means validation instrument developed observation sheet that are included in the category of high reliability.

   e. Observation Sheet of Student Activities

      The average value of the validity observation sheet of student activities is 3.35, this means that the observation sheet included in the category of valid. While the reliability

value of observation sheet of student activities 0.95, this means validation instrument developed observation sheet that are included in the category of high reliability.

f. Questionnaire of Student Responses

The average value of the validity of questionnaire of student responses is 3.22, this means that the instrument validation evaluation questions included in the category of valid.

2. Development of Teaching Model

The average value of the content validity of 3.25, this indicates a strong theoretical foundation of the Teaching Model. The average value of the construct validity of 3.21, it shows a consistency between components in the Teaching Model. The average value overall on Teaching Model developed is included in the category of 3.22 and is valid. Thus, it can be concluded that the inquiry-based teaching model has been qualified validity.

Activities fields test the model in real situations in class aims to determine the practicality and effectiveness of the model empirically. Practicality quality teaching model empirically obtained through adherence to a model. The quality of the teaching model effectiveness obtained from: (1) the observation of student activities, (2) the results of student responses, and (3) the results of students' critical thinking abilities. Implementation of the pilot study model requires teaching instruments. Development of learning tools that meet the criteria of validity, practicability and effectiveness will support quality learning model

3. Development of Teaching Instruments

The average value of the validity of the RPP is 3.55, this means that the RPP developed included in the category valid. The average value of LKS validity of 3.49, this means LKS developed belongs to the category very valid. The validity of the evaluation is about 3.25, this means that the developed evaluation questions included in the category of very valid. Field trial activities are essentially carried out to assess the practicality and effectiveness of the Teaching Model developed.

a. Results of Trial I

The trial results I obtained an average value of 2.85 realized Teaching Model. These values indicate that inquiry-based teaching model has been implemented well. Activities of students during study showed an average value of 2.71 so that according to predetermined criteria, student activities included in the active category. The percentage of students who responded to the Teaching Model based inquiry is 71.74%. These values indicate that the students' response to learning included in the category of positive. The results of the evaluation of student work on the matter shows that the results of the analysis of the t-test students' critical thinking ability scores showed a p-value of 0.065. It means that the critical thinking abilities of students have not increased significantly. So it can be said that the inquiry-based teaching model has not been able to enhance students' critical thinking abilities effectively.

b. Results of Trial II

Based on trial results II gained an average value realized Teaching Model is 3.12. These values indicate that the Teaching Model has been implemented well and supports the criteria of practicality. The average score of student activity based on observations is 3.07. Thus, student activity during the learning with inquiry-based teaching model is included in the active category. The percentage of students who responded to the inquiry-based teaching model amounted to 73.74%. These values indicate that the students' response to the model learning included in the category of positive. Analysis of the results of the evaluation of student work on the matter shows that the results of the analysis of

the t-test students' critical thinking ability scores showed a p-value of 0.028. The critical thinking abilities of students have increased significantly and are included in the critical category. It can be said that the inquiry-based teaching model has enhanced students' critical thinking abilities effectively.

DISCUSSION

Although the phase of collecting data on trials 1 performing well, but the time required to carry out this phase is relatively longer than the planned time allocation. As a result, the next phases in inquiry-based teaching model cannot be implemented optimally. Whereas phase of explaining conclusions and phase conducting reflection are the important parts of efforts to improve students' critical thinking abilities. Skemp stated that explains what has been done and communicate ideas are part of the process of reflective thinking, which is part of critical thinking [13]. Therefore, there should be improvements in the implementation of this third phase that the available time to be more effective and efficient, so that the next phase may be optimized.

Discussions in inquiry-based teaching model consist of two stages: a discussion group and inter-group discussion. Discussion among the group performed at the time of explaining conclusions. Unfortunately at some meetings in trials 1, students seem less eager to give its response. It is characterized by the low value of student activity on aspects provide feedback or questions to the group renderers and realization value of systems social on aspects of the discussion. Driver explains that knowledge and understanding are constructed if a person socially engaged in a dialogue or discussion [14]. In addition, Von Glasersfeld adding that the discussion activity is a way to create a reflection that demands awareness of what people thinks and does [15].

Reaction principle in inquiry-based teaching model has been mentioned reactions of teachers to provide feedback, including an appreciation of the students verbally. But based on results of trials 1, the reaction is less able to motivate students to be actively involved, especially in the phase of explaining the conclusions. Thus the need for additional reaction especially in giving awards for student involvement. One of the efforts to strengthen the expected behavior is to reward. Positive reward or reward can influence students to do something positive and be progressive. Also, it can be incentive for other students to follow. This is consistent with the view that behavioristic theory of learning as a change in behavior as a result of the interaction between the stimulus and response [16].

CONCLUSION

Inquiry-based teaching model to enhance critical thinking abilities meets the criteria of validity, practicality, and effectiveness. The results of expert assessment showed that the teaching model developed meet the criteria of validity with a value of 3.22 and can be implemented in the field. Field test did twice in SMP Negeri 2 Bojonegoro in a different class because an enhance students' critical thinking abilities at first test less significant, although the model was already practical. The result of teaching model realization was 3.12 so it can be said that the teaching model meets the criteria of practicality. The result of t-test analysis of the students' critical thinking abilities showed a p-value of 0.028. This meant that there has been an increase in students' critical thinking abilities significantly. The response of students to teaching model was positively associated with the percentage of 73.77%. Result of the assessment of student activity during the learning of 3.07 was included in the active category. Based on these

things can be said that the inquiry-based teaching model has enhanced students' critical thinking abilities effectively.

The components of the Teaching Model of the development consist of: (1) the model purpose, (2) syntax, (3) reaction principle, (4) social system, and (5) support system. The model purpose was to enhance the critical thinking abilities. Syntax of inquiry-based teaching model consisted of six phases, namely: (1) Confronting problem, (2) Asking conjecture, (3) Collecting Data, (4) Formulating explanation, (5) Explaining conclusion, and (6) Conducting Reflection. The principle of reaction was to provide technical assistance, ask for a review, and provide feedback. The social system emphasized cooperative learning, the medium social structure, and discussion. Support system included learning instruments as well as the tools and materials supporting the model. The learning instruments are lesson plan (RPP), student activity sheet (LKS), and the evaluation questions. The learning instruments also have met the criteria of validity, practicality, and effectiveness.

REFERENCES

[1] Soule, H. 2014. *Partnership for 21st Century Skills.* (online). (http://www.p21.org/), date accessed on September 20th 2014.

[2] Ennis, R.H. 2000. *The Nature of Critical Thinking: An Outline of Critical Thinking Dispositions and Abilities,* (Online), (http://criticalthinking.net/longdefinition.html), date accessed on Agustus 10th 2014.

[3] Ratuman, G. Tamwey, dan Laurens, Theresia. 2011. *Penilaian Hasil Belajar Pada Tingkat Satuan Pendidikan*. Surabaya: Unesa Press.

[4] Jacobsen, D.A., Eggen, P., & Kauchak, D. 2009. *Methods for Teaching -- Metode-Metode* Pengajaran *Meningkatkan Belajar Siswa TK – SMA*. Yogyakarta: Pustaka Pelajar.

[5] Callison, D. & Lamb, A. 2005. Online Learning and Virtual Schools. *Keyword in Instruction School Library Media Activities Monthly May 2005*, 21 (9): 29–35.

[6] Sanjaya, W. 2008. *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana Pranada Media Grup.

[7] Ruggiero, V.R. 1998. The Art of Thinking. *A Guide to Critical and Creative Though*. New York: Longman.

[8] Siswono, T.Y.E. 2008. *Model Pembelajaran Matematika Berbasis Pengajuan dan Pemecahan Masalah untuk Meningkatkan Kemampuan Berpikir Kreatif*. Surabaya: Universitas Negeri Surabaya Press.

[9] Ennis, R.H. 1996. *Critical Thinking*. New Jersey: Printice-Hall Inc.

[10] Suharna, H., Nusantara, T., Subanji, & Irawati, S. 2013. Berpikir Reflektif Mahasiswa dalam Menyelesaikan Masalah Matematika. *Himpunan Matematika Indonesia*, 2013 (5): 280 – 291.

[11] Rofiah, E., Aminah, N.S., & Ekawati, E.Y. 2013. Pengembangan Instrumen Tes Kemampuan Berpikir Tingkat Tinggi Fisika pada Siswa SMP. *Jurnal Pendidikan Fisika* 2013, 1 (2) : 17 – 22.

[12] Joyce, B. & Weil, M. 2009. *Models of Teaching (Eighth Edition*). Boston: Allyn and Bacon.

[13] Skemp, R. 1982. *The Psychology of Learning Mathematics*. USA: Peguin Books.

[14] Driver, R. 1994. Constructing Scientific Knowledge in The Classroom. *Educational Research*. 23(7): 5 – 12.

[15] Suparno, P. 1997. *Filsafat Konstruktivisme dalam Pendidikan*. Yogyakarta : Kanisius.

[16] Budiningsih, A. 2005. *Belajar dan Pembelajaran*. Jakarta: PT. Rineka Cipta.

Local Wisdom in Heritance for Grinding The Rice at Kampung Naga Indigenous, Tasikmalaya, West Java

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Abstract. Advances in technology have eroded the pattern grind the rice with traditional tools turned into machines. But it did not happen at Kampung Naga indigenous Tasikmalaya, West Java is retaining local knowledge for grinding the rice. The research aims to determine the inheritance of indigenous people grinding the rice at Kampung Naga indigenous Tasikmalaya, West Java. The method used was deep interviews and observations. Informants are housewives and young girls Kampung Naga indigenous Tasikmalaya, West Java. Data were analyzed by triangulation data. The results showed (1) The inheritance pattern of activities pounding rice is done naturally and hereditary, (2) Steps piling rice on Kampung Naga indigenous Tasikmalaya not be in writing but by inheritance verbally and direct practice, (3) There are economic benefits and other advantages of rice piled activities traditionally.

Keywords: Local knowledge, inheritance, grinding the rice

Advances in technology have eroded the pattern pound rice with traditional tools turned into machines (huller). It occurs in almost all regions in Indonesia. While many advantages of traditional rice pounding. As a result, many young people today who do not understand the process of pounding rice traditionally, because it is not inherited from the previous generation, or even feel that pounding rice traditionally is a quaint, time and effort. But it did not happen in Kampung Naga Indigenous Tasikmalaya, West Java, is retaining local knowledge pounding rice.

Pounding rice with traditional tools is the result of the culture of a society. But now many results of the local culture becoming obsolete. As in Java, Sudibyo (2006: 99-100) that the value of the local culture in Indonesia, especially Java culture poorly understood and internalized by society. Lately seen increasingly resignation is good and true mastery of the Java language mainly variety of manners by most of the Java community. To overcome this by Rahayu, Setyarto and Agus (2014: 56) the need for efforts to preserve the cultural values of Java through inheritance from one generation to the next. Inheritance local knowledge is very important, that local wisdom including rice pounding with traditional tools have not lost time. The research objective was to determine the inheritance of local wisdom pounding rice on Kampung Naga indigenous Tasikmalaya, West Java.

LITERATURE REVIEW

Local Wisdom Inheritance

Inheritance in Large Indonesian Dictionary (2007: 1269) is a process, a way, inherit or bequeath act. Inheritance can be in the form of property, the result of culture or traditions of a given society. Wignjodipoero (1997: 161) The inheritance process runs continuously so that

each descent into a new family of stand-alone that would in time have a turn as well to continue the process to the next generation (the offspring) as well.

Local wisdom in Law No. 32 of 2009 declared the noble values that apply in the governance of public life, among others, to protect and manage the environment sustainably. Maryati and Juju Suryawati (2014: 129) defines local wisdom as a way of life and science as well as various life strategies that intangible activities undertaken by local communities in addressing various problems in meeting the needs of the community. In this case the activity pounding rice with traditional equipment (mortar, pestle) in Kampung Naga Tasikmalaya Indigenous communities are also included local wisdom, inherited from his ancestors. Activity pounding rice according Suwarningdyah (2007: 28) is a process of mengola paddy into rice, through stages.

Activity pounding rice as a result of a society's culture passed down from generation to generation. According Koesnendah (2014: 2) is a cultural inheritance shipping activities or dissemination of messages from one generation to another generation of something that has become a habit and difficult to change. In this case there is not a society that does not perform cultural inheritance. Thus the activities of pounding rice in Kampung Naga Tasikmalaya indigenous that exists today is a form of local wisdom inherited from previous generations and will be passed on to subsequent generations.

RESEARCH METHODS

This study used an ethnography qualitative approach. The research location is Kampung Naga, Neglasari, Salawu, Tasikmalaya District, West Java Province. Key informants are housewives, young women and community leaders Kampung Naga Tasikmalaya, West Java. Data were collected using in-depth interviews and observation. Data were analyzed by triangulation data.

RESULTS AND DISCUSSION

The inheritance pattern of rice pounding activities done naturally and hereditary

Kampung Naga Indigenous in converting paddy into rice is still done traditionally. Traditional tools used to pound rice that is a mortar and pestle. The use of traditional equipment pounding rice is always maintained by Kampung Naga Indigenous, although in another village has been using a grinding machine (huller). Kampung Naga indigenous always preserve the use of traditional equipment is to pass this activity on the younger generation, so it can be sustainable all time.

The inheritance pattern of rice pounding activities on Kampung Naga indigenous done naturally and hereditary. On housewife mother who still have young children, the inheritance of the activity is performed while bringing the children to the point of pounding rice. This makes the distinct advantage that while caring for small children but also produces rice. Small children will naturally pay attention to the activities carried her mother, and tried to help where she can. Kids there who helped take the rice, put rice in a mortar, and some even tried to help the pound rice. Parents who know children want to help grind it, then make a small pestle to use children.

At this stage, children are already beginning to see and learn how to pound rice, to feed the fish with the result of pounding rice bran as a fun activity. In the early stages of inheritance, the children will love learning to pound rice because it is still under study and play. Kids love imitating her movements performed in a way that they are capable and they can enjoy participating parents when pounding rice. Children who are happy to follow the old man would

not cry and regard as a fun play activities. Parents do inheritance rice pounding is done indirectly, this means that this is done while caring for small children but also while conducting work that is pounding rice to make rice.

Furthermore inheritance to the younger generation performed in children adolescents. Teenage children help their parents pounding rice in school holiday time. Children also do not feel that learning pounding rice is a compulsion, but rather on instilling the motivation to live in order to learn more pounding rice appreciate how difficult it is to produce a single grain of rice. It means to be able to eat rice requires enormous sacrifices, good energy, time and emotion. By learning to pound rice also teaches the value of virtue that will provide supplies to be able to survive in the next generation such as hard work, patience, obey the rules, and so on.

The value of hard work reflected when they have to pound rice with a lot of energy, aside every grain that is not wasted and the results much. Values reflected when they must wait patiently waiting queue limited tool of others, patiently separating grain grain from the chaff. Value abide by the existing rules, which are reflected when they have to follow the steps in pounding rice, can not pound rice directly to the second step and do not pass the first step. Value virtue of pounding rice activity will make the next generation has a sublime mental and unyielding. According Koesnendah (2014: 2) inheritance effort is not simply pass or exert a material, but the most important thing is to convey the values that are considered the best that has become the standard guidelines in the community.

The teenagers who have finished school and did not proceed to a higher level and does not work outside the village, they more time to learn about all the economic activity of learning to grow rice, weeding, harvesting, pounding rice, cooking rice, and other such make crafts at leisure.

Teens at this age is more intense in order to inherit the activities pounding rice, because chances are they who would continue the tradition of pounding rice, and dwell in the village. Child adolescent girls is indeed to be able to pound rice, although they later do not live in the village. This is because, although they did not live in the village, when there is activity cultural activities, generally they come together for the success of cultural activities. Their contributions, particularly human could have done with rice piled together for use in the traditional ceremonies. This is because the rice used for this ceremony to be from the pounding rice in the village.

The rice piled steps on Kampung Naga indigenous Tasikmalaya not be in writing but verbally inheritance and direct practice

Rice pounding activities done by Kampung Naga indigenous, inherited by natural process and is done for generations. The activities undertaken pounding rice Kampung Naga indigenous and will always be maintained continuity by indigenous have followed the steps that have been defined and can not be skipped. Rice pounding steps is ingrained in every mothers and young adults so that they memorize and understand the sequence order of pounding rice. Rice pounding steps will indeed be maintained but not in writing, but through direct practice so institutionalized naturally. Rice pounding steps made Kampung Naga indigenous namely:

1. Rice is dry and there is still the trunk, placed on a dimple perforated rectangular. In this process, the rice pounded to separate the grains of rice with rice straw. Once they are separated then, rice straw is separated and collected in a separate place. The rice straw can dimanfaakan to shampooing, making brooms and more.
2. Grains of rice which has been separated, cleaned from a short stem that there might still be a way diangin wind with great winnowing.

3. Grain rice which has been separated from the stems then transferred to a conical dimple holes. Mashing process is carried out to remove the bran so that the finished rice. Having crushed the wind a few times and then cooling it to separate the skin from the rice. Bran (husk) is collected and can be used for fertilizer plants.
4. Process rice pounding is done several times so that a clean rice. In this process then aerated wind pounded rice so that the rice is cleaner. The process of wind blow when almost clean rice is done above the fish pond. The goal for this bran falling over the pond and eat fish. In this part of the process of mashing done many times and the wind blow too many times so that a clean rice.

Rice pounding steps is basically the same from one region to another region. Suwarningdyah (2007: 28) in his research mentioned steps traditionally pounding rice in four phases: (1). The initial stage is to shed the grain of the trunk; (2). The second stage is to solve bran; (3). The third phase is the sieve (napeni) to separate the rice has become with the remains of grain; (4). The fourth stage was to pound rice that has not been separated back in his skin.

The profits from traditional rice pounding.

The activities undertaken pounding rice Kampung Naga indigenous have economic benefits and other advantages. Some of the economic benefits of the activities of pounding rice are: (a) there is no charge for pounding rice as engine wear, (b) rice straw can be burned and used for shampooing to saving to buy Sampho, (c) of rice stalks are also often used to make small broom, which is commonly used by the people to clean her house, thus reducing the purchase of a broom, (d) the bran can be used to fertilize plants, so the cost of fertilizer can be reduced, (e) the remainder can (bran) can be used to feed the fish pond, so do not buy fish feed, (f) do while caring for a child so there was no charge for child care

In addition to economic benefits of this activity pounding rice, there are other advantages of pounded rice compared with rice milling results. The rice is healthier mashed result, a lot of protein, and fiber higher than milled rice. Koswara (2009: 9) in his research found that the more complete the mashed rice nutrition. The protein content mashed rice (brown rice) of 8.3 to 9.6 (% db) higher than milled rice (milled rice) is from 7.9 to 8.3 (% db). Mashed rice fiber content of 0.7 to 1.2 (% db) higher than the milled rice is 0.3 to 0.6 (% db).

CONCLUSION

1. The inheritance pattern rice pounding activities done naturally and hereditary
2. The rice piled steps on Kampung Naga indigenous Tasikmalaya not be in writing but verbally inheritance and direct practice
3. There are economic benefits and other advantages of the traditional rice piling activities.

REFERENSI

Koesnendah, H. 2014. Pewarisan Tari Topeng Banjet Grup Sinar Pusaka Warna Kabupaten Karawang. Bandung: Universitas Pendidikan Indonesia.repository.upi.edu Hal 2-4

Koswara, S. 2009. Teknologi Pengolahan Beras (Teori dan Praktek). eBookPangan.com 2009

Maryati, K. & Juju, S. 2014. Sosiologi SMA/MA Kelas XII. Jakarta: Erlangga

Pusat Bahasa Departemen Pendidikan Nasional. 2007. Kamus besar Bahasa Indonesia Edisi Ketiga. Jakarta: Balai Pustaka

Rahayu, S. & Agus. 2014. Model Pewarisan Nilai-Nilai Budaya Jawa Melalui Pemanfaatan Upacara Ritual. Jurnal Ilmu Komunikasi. Volume 12, Nomor 1, Januari- April 2014, hal.55-69

Republik Indonesia. Undang Undang No 32 Tahun 2009 tentang Perlidungan dan Pengelolaan Lingkungan Hidup

Sudibyo, I. 2006. Peranan Kebudayaan Jawa dalam Pengembangan Kebudayaan Nasional dalam Pernak pernik Budaya Jawa. Salatiga : Pusat Studi Budaya jawa FKIP UKSW kerja sama dengan Widya Sari Press

Suwarningdyah, N. 2007. Laporan Penelitian Tinggalan Budaya: Bidang Kesenian. Jakarta

Wignjodipoero, S.1997. Pengantar dan Azas-Azas Hukum Adat. Jakarta: Haji Mas Agung

An Analysis of Science Process Skills of Pre Service Biology Teachers in Solving Plants Physiology Problems

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Abstract: The lowest of Science Process Skills is one of problem in education. It was caused by the lack of awareness of lecturers to facilitate students to conducting activities to develop the skills of students at the Sulawesi Barat University. This study aims to proof at the science process skills of students. The methods used qualitative research approach to engineering tests, interviews, and questionnaires. Subject of the study consisted of 47 biology education student, Math and Science Faculty in Sulawesi Barat University. Based on the analysis of data was obtained the test results science process skills in solving problems which refers to indicators of process skills Science, showed that students' ability to answer to the percentage identified with control variables as much as 51%, definition operational as much as 57%, test hypotheses as much as 45%, designing investigations as 60%, and graphs with data interpretation as much as 44%. The results of the analysis in accordance with the results of interviews conducted with students, in which they reveal that recognize science process skills but indicators of Science Process Skills have not understood the term as well as the working process. Based on the analysis, it could be concluded that the science process skills of students it was still had been low.

Keywords: science process skills, plant physiology, student

This 21st century manifests a reformation and globalization era which is marked by the emergence of competition between countries. Indonesia is one of the countries which should be able to take part in the competition. Therefore, this country needs to improve the quality of its citizen either through formal or informal education. The preparation of creating high quality human resources has obviously become an absolute necessity of a country and education serves as weapon to realize this goal (Mulyasa, 2004). However, people have been facing serious problems related to education that is lack of quality of skills; one of which is the science process skills (Nurhadi & Senduk, 2004).

Process skills refer to a learning approach which is directed to the growth and development of certain skills of the pre-service biology teachers. These skills will help them process information to discover facts, concepts as well as behaviors and values. Through these skills, the information obtained is more meaningful as they develop their thinking skills. One way to improve process skills is the practicum method through which psychometric, cognitive, and affective skills are simultaneously upgraded.

Facts show that in studying science, students tend to memorize concepts, theories, and principles without deeper understanding the acquisition process (Depdiknas, 2003). This is one of the factors of the students' lack of skills, especially science process skills. Science itself is perceived from two dimensions, product and process. This rationale shows how important the skills for the future, assuring that our nation can become one of developed countries in the world (Holil, 2008). Learning models used in most of educational institutions are still teacher-centered. Therefore, students are not actively engaged in the process. The students are less motivated since they have barely a chance to develop their skills.

The students need the process skills both when doing scientific investigations and during their learning process (Harlen, 2000; Taconis, Ferguson-Hessler & Broek kamp, 2000). Science process skills is also believed to be able to ensure that students have the meaningful learning experience because they help students to develop higher order thinking (Germann & Aram, 1996; Lee et al., 2002). process skills would aid the understanding of the theoretical scientific knowledge if practical learning opportunities were put in place. The prospects of involving students in science practical activities may improve the mastery of science process skills and enhance the ability to understand the scientific concepts (Hodson, 1990). Rubin (1992) says that "... that people who are proficient in science process skills Scientists are not only better citizens but better...".Keil dan Jodi Haney (2009), "... Science process skills are not only important for those pursuing careers in science , but also most jobs in this new millennium using involve; these skills....".

These skills are divided into two groups: basic science process skills which include: observing, asking questions, classifying, measuring, and predicting. The second group was integrated science process skills which include; namely identifying and defining variables, collect and transform data, create data tables and graphs, describing the relationship between variables, interpret the data, manipulating materials, recording the data, formulating hypotheses, designing investigations, make inferences and generalization (Karamustafaoglu, 2011). Science process skills belong to a scientific method in which students are introduced to steps in discovering something through an experiment. These skills play an important role in assissting students in finding concepts of learning. Each of science process skills and its characteristics are related to each other, but there must be an emphasis in every distinctive skill such as in doing an experiment, performing scientific methods, and inquiring. The science process skills are essential in learning science (Sartika, 2015). Indicators of the skills that can be measured cover identifying and controlling variables, defining operational terms, testing hypotheses, designing an investigation, and interpreting data.

Plants physiology is one of the courses in college which is strongly related to natural science. This course contains analyses on the phenomenon of organisms. To observe the phenomenon, students are required to have skills which help them to acquire knowledge. The success of mastering a certain concept can be evaluated by a test. Therefore, this study aimed to evaluate students' science process skills through a plant physiology test. This study was expected to describe the ability of the students or the pre-service biology teachers in solving problems found in the test.

METHOD

This study was a survey approached qualitatively. The subjects of this research were the fifth semester students registered in academic year 2015/2014 who were being enrolled in plant physiology course. Data was collected through a test which consisted of 15 multiple choice items. The test lasted 30 minutes. In addition, interviews and questionnaires were also used in this study. Finally, data was analyzed using Miles and Huberman model.

Findings

The results of the test are depicted in table 1. Based on the results which refer to indicators of science process skills, it was found that the percentage of students' ability in identifying and controlling variables was 51%, defining operational terms was 57%, testing hypotheses was 45%, designing an investigation was 60%, and interpreting data was 44%.

Table 1. Result of Test

No.	Indicator	Persentase (%)
1	Identifying and controlling variables	51
2	defining operational terms	57
3	testing hypotheses	45
4	designing an investigation	60
5	interpreting data	44

Table 2 presents data from questionnaires about science process skills. Based on the results, it was found that 48% of the students were able to identify and control variables, 45% of them could define operational terms, 32% could test hypotheses, 43% could design an investigation, 45% could interpret data.

Table 2. Result of Quistionnaire

No.	Indicator	Persentase (%)
1	Identifying and controlling variables	48
2	defining operational terms	45
3	testing hypotheses	32
4	designing an investigation	43
5	interpreting data	45

The results of the interviews with the students about science process skills are depicted by table 3. Based on the results, it was found that 48% of the students were able to identify and control variables, 53% of them could define operational terms, 47% could test hypotheses, 52% could design an investigation, 50% could interpret data.

Table 3. Result of Interview

No.	Indicator	Persentase (%)
1	Identifying and controlling variables	48
2	defining operational terms	53
3	testing hypotheses	47
4	designing an investigation	52
5	interpreting data	50

DISCUSSION

According to the test of concepts mastering and science process skills, methods used in data collection have showed significant differences. The results of these three different methods of collecting data (test, interviews, and questionnaires) have showed the students' lack of knowledge. Each method showed different result on different indicator of science process skills. The highest percentage of the test was designing investigation that is 60% and the lowest percentage was interpreting data that is 44%. The students' knowledge based on science skill was categorized low. This was proven by the results of interviews and questionnaires which indicated that only a few respondents (students) recognized the description of science process skills. It indicates that the lecturer who taught the course rarely apply science process skills in learning.

Student's responses towards learning methods were positive. Every statement revealed through the interviews demonstrated the benefits of science process skills to make students

more active in learning, help them develop their creativity and improve their thinking skills. This learning method is considered effective in evaluating learning thoroughly from the cognitive, affective and psychometric domain. but this learning method would be more attractive if combined with some models of learning oriented constructivist theories. According to research relevant (Sartika, 2015) that the methods / learning model suggested to increase the Skills Process Science include: Problem Based Learning, Guided Inquiry, Learning-based Practicum, Methods Experiment, Project Based Learning (PjBL), and Collaborative Team Work Learning. Some of the learning model affect the acquisition of science process skills score.

CONCLUSION

Science Process Skills students of Biology, State University of West Sulawesi is still low, especially in the interpretation of data.

REFERENCES

Depdiknas. 2003. Kurikulum 2004 SMA: *Pedoman khusus pengembanga silabus dan penilaian mata pelajara kimia.* Jakarta: Ditjen Dikdasme Direktorat Dikmenum.

Germann, P. J., & Aram, R. J. 1996. Student performances on the science processes of recording data, analyzing data, drawing conclusions, and providing evidence. *Journal of Research in Science Teaching,* (Online), *33* (7), 773-798. http://dx.doi.org/10.1002/(SICI)1098-2736(199609)33:7<773::AID-TEA5>3.0.CO;2-K

Harlen, W. 2000. Teaching, learning and assessing science process skills. *Assessment in Education,* (Online), *6* (1), 129-144. http://dx.doi.org/10.1080/09695949993044

Hodson, D. (1990). A critical look of practical work in school science. *School Science Review, 71* (256).

Holil, A. *Pendekatan Keterampilan Proses Sains*, (Online), diakses dari http://anwarholil.blogspot.com/2008/04/keterampilan-proses.html. (7 Desember 2016).

Karamustafaoğlu, S. 2011. Improving the Science Process Skills Ability of Science Student Teachers Using I Diagrams, Eurasian J. Phys. Chem. Educ. (Online), 3 (1): 26-38, 2011. journal homepage: http://www.eurasianjournals.com/index.php/ejpce

Keil, Jodi and Jennifer. 2009. "Improvements in Student Achievement and Science Process Skills Using Environmental Health Science Problem-Based Learning Curricula", Electronic Journal of Science Education Volume 13, No. 1 (2009). Southwestern University.

Lee, A.T., Hairston, R.V., Thames, R., Lawrence, T., & Herron, D.S. 2002. Using a computer simulation t teach science process skills to college biology and elementary majors. *Compute Simulations Bioscene, 28*(4), 35-42. http://dx.doi.org/10.1081/SAC-120002714

Mulyasa, E. *Menjadi Guru Profesional Menciptakan Pembelajaran Kreatif da Menyenangkan*, Bandung: 2005

Nurhadi & Senduk. 2004. *Pembelajaran Kontekstual dan Penerapannya dalam KBK*. Malang: Universitas Negeri Malang.

Rubin, R. 1992. "Systematic Modeling versus Learning Cycle: Comparative Effects on Integrated Science Process Skill Achievement", Journal of Research in Science Teaching, v29, n7, pp. 715-727

Taconis, R., Ferguson-Hessler, M.G.M., & Broekkamp, H. 2000. Teaching science problem solving: A overview of experimental work. *Journal of Research in Science Teaching,* (Online), *38*, 442-468. http://dx.doi.org/10.1002/tea.1013.

Analysis Soft Skill of Chemical Education on Students Microteaching Course (PPL 1) Through Application Model Project Based Learning

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Abstract: This study aims to: (1) describe the students' soft skills majoring chemistry education, department of chemistry students in the course PPL 1 through the application of Project Base Learning (PBL) model, (2) Look at the relationship between the provision of project tasks with soft skills (3) look at the relationship between performance with soft skills. The subjects are chemistry education as many as 48 students that were divided into two classes, with the proportion are 9 men and 39 women. The data collection is done by using the instrument (1) Performance observation sheets, (2) project evaluation sheets and (3) soft skills questionnaire with 11 indicators of soft skills. Data analysis was performed with 1) a descriptive analysis with indicators description about soft skills and inferential analysis with correlation techniques (analysis SPSS 20.0 for windows). The results Showed 10 indicators included in the category of very high to soft skills high/very high such as communication (95.8%), Independent (95.3%), analysis (82.9%), ethics (92.7%), motivation (93.1%), initiative (90.6%), commitment (83.4%), problem solving (81.9%) , flexibility (84.7%), time management (89.6%). While the first indicator of the high category, leadership (78.1%). Soft skills of students in the department of chemical education programs for PPL 1 are at very high category. There was a low correlation between the nature of the assignment project and the students' soft skills of chemical education programming PPL 1. There was strong correlation between performance and students' soft skills programs for PPL 1. There was low correlation between the provision of project tasks and students performance chemical education programming PPL 1.

Keywords: soft skills, project based learning

Microteaching course (PPL 1) which has two SKS is one of the compulsory subjects that are programmed in the department of Chemistry education with the requirement has programmed pedagogic courses such as Teaching Profession, Chemistry Teaching and Learning Strategies, DDP MIPA, review the curriculum and others. According to Dimyati (2000) that the learning process in college besides demanding the academic skills *(hard skills),* students are also required to develop their personal skill *(soft skills)* so that are they ready to enter the job market when they have completed the study.

Soft skills are *skills* that enable a person achieve his or her potential and use its knowledge useful and integrated into his life. *Soft skills* are a combination of behaviors, including attitudes and motivations that drive behavior (Sharma, A 2009 and Syamsidah, 2014). It can be concluded that *soft skills* are personality traits that key to act success and serves to improve the effectiveness of the work.

Some of them has become opinion above indicated that soft skills associated with a personality that strongly influence on behavior, attitudes and motivation (motivation). Personality has contributed to the positive leadership traits, making decision, solve the conflict with the fair, more communicative, and increase productivity and high creativity. Mastery the soft skill ability reinforces the personality or the personality of a person in facing the challenges

of work and other life resistance.*Soft skills* are often also called an inseparable part of the personality, both intra-personalities and inter-personalities and with this person's personality can have the things that distinguish it from others in the community and distinguish those with level or job level or career in one job. Subsequently (Coates, ED 2006) distinguishes between intrapersonal and interpersonal. The first or intra-personal is a skill that someone has to organize him/herself, such as the setting time period *(time management)*, regulating stress *(stress management)* , governing the dynamics or changes , character transformation, creative thinking, have a positive reference purposes, and quick learning techniques. The second or interpersonal is a skill that relate to or interact with the environment, the community, and the work environment, as well as interaction with the individual so as to develop the performance of the maximally, the motivation skill, leadership skills, negotiation skills, presentation skills, communication skills , the ability to establish relationships, and public speaking skill.

Students majoring chemical education as a chemistry teacher candidates and other related professions require capabilities beyond in terms of communication, adaptation and others. Skill or ability can be sharpened with the application of models of innovative learning and engage students as PBL (problem based learning), project based learning (PBL), and other discovery learning.

Project-based learning (PBL) is one model of anticipation to develop the students' ability, especially *soft skill*. This project-oriented learning has been developed in developed countries like the United States. The development and approach of this model more emphasize on providing opportunities for students who have been taught to explore the theoretical aspects as well as reflecting the practice which they did. From various studies about lectures strategies and training for practitioners discovered that one approaches closer to the conception *softs kill* is the approach of the project known as *Project-based Learning* (Bhattacharya et al. 2006).

The phenomenon of juvenile delinquency which lately has penetrated the world of school is a challenge for prospective teachers prepare themselves better in terms of the handling of the child's character. Low acceptance of the world of work, both formal and informal when applying to be a professional workforce allegedly caused by poor *soft skills of* both students and alumnus and this fact begins when the lecture takes place in which the device and learning model less supportive towards the development of *soft skills* of students. The fact is of course a problem that needs to be solved, because if not then the outputs of education will face resistance not only to the alumnus itself but also on educational institutions and the business world.

Based on that background, the research of the Study of Soft skills of students with the application of Project Based Learning (PBL) model as part of efforts to improve the soft skills of students is important to do.

This study aims to:

1. Describe student soft skill majoring Chemistry education which are programming PPL 1 using project based learning (PBL) related to aspects; communication, independent, analytical, leadership, ethics, motivation, initiative, commitment, problem solving, flexibility and time management.
2. Know whether there is a correlation (correlation) between students task with soft skills of students
3. Know whether there is a relationship between the value of performance which the soft skills PPL 1 course majoring Chemistry education with the application of *project based learning (PBL).*
4. Know whether there is a relationship between the tasks of the student with a value of teaching performance.

Project-based Learning (PBL) Model

Learning Model is a part that cannot be separated from efforts to create learning objectives effectively and efficiently, in terms of how the teacher presents the material so that the material that can be accepted by learners is easy and fun, that kind of model make teachers and students easy to understand, understand and explain various materials despite the relatively large amount and may be a relatively long time.

Bruce Joyce, Marsha Weil and Beverly Showers (1992) describes the learning model is a plan that is used as a guide in the classroom learning or learning in tutorials and to determine the tools of learning and guide us in designing learning to help learners so that the learning objectives reached. Thus essentially learning model is a pattern of steps that include analysis, development and manufacture of materials and evaluation of learning outcomes in order to provide convenience to the students to achieve the learning outcomes.

Joice and Weil (1980) revealed that the learning model is a plan or pattern that can be used for curriculum (learning materials that long), designing teaching materials, and delivering teaching inside and outside the classroom. Furthermore Joice, Weil & Showers (1992: 14) suggests five essential elements as the description of a model of learning, namely (1) syntax, which is a sequence of events which is called a phase, (2) the social system that is the role of teachers and students as well as the type of rules required, (3) the principles of reaction, which give an overview to the teachers about how to view or respond to questions students, (4) support system, the condition required by the model, and (5) the impact of instructional and companion; instructional impact is the learning outcomes are achieved directly by directing the learners on the expected goal, while the companion impact is learning outcomes produced by a process of learning, as a result of the creation of a learning environment that directly experienced by students without direct guidance from the teacher.

Suyanto (2013) states that *Project-based learning* is a teaching approach that was developed based on the principles of constructivism, problem solving, inquiry-research, integrated studies and reflections that highlight the aspects of theoretical studies and applications. At the approach of Project-based Learning, students develop a project either individually or in groups to produce a product-such as a portfolio or journal (Clarke, 2003) and the results were presented/were presented and being reviewed. To support Project based Learning, lectures or training can use a variety of sources/resources including the field observation and reflection activities (Markham, T, 2003).

Table 1 Syntax Learning Project Based Learning (PBL) Model (Markham, 2003)

	Learning Activities	
syntax PBL	Lecturer	College student
Phase I Selecting a topic of academic problems	1. Explaining learning objectives, scenario and how to implement it. 2. Assisting students in dividing the group 3. designing project planning	1. Forming a group (2-4 people) heterogeneous academically. 2. Determining or selecting projects that are of interest
Phase 2 Implementing of learning	1. Guiding students in preparing projects, tasks and learning objectives based on the selected topic. 2. Leading the students, how to work in groups.	1. Making work sheet procedures, projects and learning objectives based on the selected topic. 2. Following the teachers' instruction about how to work in groups.

stage 3 Monitoring the learners and the progress of the project	1. Monitoring the progress of the project each group. 2. Offering help a (if needed)	1 .Collecting information according to subject matter through strategies, models, time, and evaluation forms to solve their problems. 2 .Consulting their findings that emerged during the project.
stage 4 Testing results *(Assess the outcome)*	1. Appraising/observing and coordinating the percentage of projects that have been implemented.	1 .Some or all groups exhibited and present the project results in front of the class.
stage 5 evaluating the experience (Evaluate the Experience)	1. Reflecting on the activity and results of projects already executed, either individually or in groups. 2. Lecture and learners develop the discussion in order to improve performance during the learning process, so in the end found a new finding (new inquiry) to address issues raised at the stage of first learning.	1. students were asked to express their feelings and her experience during the project completed 2. Lecture and learners develop the discussion in order to improve performance during the learning process, so in the end found a new finding (new inquiry) to address issues raised at the first stage of learning.

Students' Soft Skills

Many experts give insight about *soft skills*, there is a mention as to the nature and personality, behavior and so on. As a personality trait and the *soft skills* that are attached to a person, and when it was repeatedly carried out to form a personality. Everyone will have certain qualities and traits that are what often distinguishes one person to another, for example, leadership, *human relations*, activity and creativity and so on.

Furthermore, in the literature found a lot of opinions about *soft skills*, for example (Leung, 2008; Kaipa, 2005) cited by (St. Hamida, 2012), stated that in general *soft skills* are a group of personality, or ability that someone need to be able to work effectively in the workplace, and improve themselves. Furthermore *Soft skills* are the key to success, including leadership *(leadership)*, decision making, conflict resolution, communication, creativity, and presentation skills (Leung, 2008).

Soft skills are *skills* that enable a person achieve his or her potential and use its knowledge useful and integrated into his life. *Soft skills* are a combination of behaviors, including attitudes and motivations that drive behavior (Sharma, A 2009 and Syamsidah, 2014). It can be concluded that *soft skills* are personality traits that become key to success and serves to improve the effectiveness of the work.

Some of the opinion above indicated that the *soft skills* associated with a personality that is strong influence on behavior, attitudes and motivation *(motivation)*. Personality or personalities have contributed to the positive leadership traits, making the right decision, solving conflict with the fair, more communicative and increasing productivity and high creativity. Mastery ability *soff skill* reinforces the personality or of a person in facing the challenges of work and other life resistance.

Soft skills as explained above are very clear and it is important to get attention because in it contains the potential to be used of a person in interaction with others. Interaction requires managerial skills and technical a good skill, for example of how to manage in terms of time, in terms of stress, creative thinking and so on, all of this being an example and helpful in negotiation, presentation and in all forms and models of communication.

Furthermore, almost the same opinion was expressed by Sharma. A, (2009), that *soft skills* are all aspects of *generic skills* that also include elements of cognitive associated with

nonacademic skills. Added to that, based on the results of the study, seven *soft skills* were identified and important developed in learners in higher education institutions , include; Communication skills *(communicative skills),* thinking skills and problem solving *(thinking skills and problem solving skills)*, the power of team work *(team work force)* , lifelong learning and information management *(life-long learning and Information Management)*, business skills *(entrepreneur skills)*, ethical, moral and professionalism *(ethics, morale and professionalism)*and leadership skills *(leadership skills).*

What is proposed by Sharma above emphasized that *soft skills* are part of a skill that although strongly associated with cognitive domains but he is in the area of *non-academic skills* , it means that a person's skills cannot be separated from academic intelligence, may be made a proposition that there a strong tendency that one's who has academic intelligent when skill trained soft will give birth to a smart and skilled, has a good academic skills as well skilled in certain respects in accordance with the interests of the user.

It is hard to imagine how one can be successful without skill, because it was realized that academic intelligence is not enough to interact or negotiate with another person or business colleagues. Because it was in the middle of the phenomenon that soft skill is needed to face national and global challenges.

Material PPL I

PPL 1 (microteaching) is one of the compulsory subjects with a certainty 2 credits are given to the education department of chemistry with the purpose to give provision to student was will become teacher to be skilled and competent in teaching in the classroom. This subject is given after the students follow a course pedagogic as prerequisites such as Strategy Learning Teaching Chemistry weighs 3 SKS, Fundamentals of Education Mathematics 2 credits, Profession of Teaching 2 credits, development Participants learners 2 credits, Teaching and Learning 3 credits, Review curriculum 3 Credits and Chemistry planning 3 Credits.

PPL 1 aims to give provision for students Prodi chemical education to engage in the implementation of the actual field practice in the course PPL 2, where its implementation in schools partner. Competence to be achieved in this course is students able to prepare the lesson and apply it in the micro classroom by applying knowledge that has been acquired. Course is provided by giving the task of project such as designing a learning device, choosing the model of learning and assessment. Next apply the learning in the form of micro learning in class by 45 minutes for each student.

RESEARCH METHOD

Types of research

This research is the descriptive analytical abilities to reveal *soft skills of students* to apply *Project Based Learning* on the subject PPL I majoring Chemical Education Department of chemistry UNM.

Research subject

Subjects in this study were students of department of chemical education class A that is divided into two classes, namely A_1 and A_2 Department of Chemistry UNM which is programming course PPL 1 even semester year 2015/2016. The number of students is 48 people; 24 students in grade A_1 female 21 and male 3 student, A_2 class; girls 18 and 6 men

Research procedure

This research uses descriptive analytical research design to study variables that *soft skills of students* with aspects of communication, independent, analytical, leadership, ethics, motivation, initiative, commitment, problem solving, flexibility and time management. The steps of learning as in Table 2

Table 2 Steps Teaching and Learning Project Based Learning (PBL)

Lecturer's activity	**Students' activity**
Initial activity Explaining the purpose of learning, scenario and how to implement it. 1. Helping students in dividing the working group 2. Designing the project planning Lecturer gives motivation 3. Checking for the presence of students 4. Providing a perception related to the material to be covered 5. Delivering the learning objectives	**Event Start** 1. Forming a group (2-4 people) heterogeneous academically. 2 .Determining or selecting projects that are interested
Core activities Lecturers do lectures learning by solving problems as follows: 1. Delivering the learning contract on students about the process of learning 2. Guiding students in preparing projects, tasks and learning objectives based on the selected topic. 3. Guiding the students about how to work in groups. 4. Monitoring the progress of the project from each group. 5. Offering helps (if needed). 6. Assessing / observing and coordinate the percentage of projects that have been implemented 7. Giving reflection on the activity and results of projects already executed, either individually or in groups. 8. Teachers and learners develop the discussion in order to improve performance during the learning process, so in the end found a new finding (new inquiry) to address issues that have been raised at the beginning.	**Core activities** Students follow the following steps: 1. Noting 2. Arranging work procedures, projects and learning objectives based on the selected topic. 3. Following the guidance of lecturers on how to work in groups. 4. llecting information according to subject matter through strategies, models, time, and evaluation forms that have to solve their problems. 5. Consulting their findings that emerged during the implementation of the project. 6. Presenting or exhibiting and presenting the results. 7. students were asked to express their feelings and her experience during the project completed 8. Teachers and learners develop the discussion in order to improve performance during the learning process, so in the end found a new finding (new inquiry) to answer which has been filed at the beginning.
End activities Directing students to me paraphrase the concept and giving follow-up	**End activity** Summing

Data collection technique

The data collection phase of this research is done by providing test and non-test: (1) the test is given is the test performance (performance) that is student's performance according to the task of the project given. (2) non-test is provided in the form of a soft skill questionnaire of

students consisting of 31 items by loading aspects: (i) communication, ii) independent, iii) analysis, iv) leadership, v) ethics, vi) motivation, vii) initiative, viii) commitments, ix) problem solving, x) flexible and xi) management of time. 3) project course PPL 1 which includes aspects of 1) election topic (competence); 2) the selection of models; 3) completeness RPP component based Curriculum 2013; 4) Steps of project; 5) the use of the MFI; 6) selection of media and 7) component usage Assessment.

Data analysis technique

Data analysis technique used is descriptive statistical analysis and inferential analysis.

1. Analysis of descriptive statistics

After collecting the data, the data obtained will be analyzed using descriptive statistical analysis performed to illustrate how big the *soft skills of* students of department of education classes A. Descriptive statistical analysis of the data includes the highest value, lowest value, average value, and standard deviation.

The ability of *soft skills* is determined by calculating the percentage then put into five categories for every aspect of *soft skills.* According to Arikunto (2010) the predicate five categories is as follows:

Table 3. Category Soft skills Students

Interval Percentage (%)	Category
80-100	Very high
65-79	High
55-64	Medium
45- 54	Low
0-44	Very low

2. Analysis Inferential

Analysis of inferential used to se the relationship (correlation) between the *soft skills* of students in the application of the PBL with chemical education student is performance on the course PPL 1 with correlation technique *Product Moment.* Statistic technique used is SPSS for windows 20.00.

Table 4 Criteria Value of Correlation

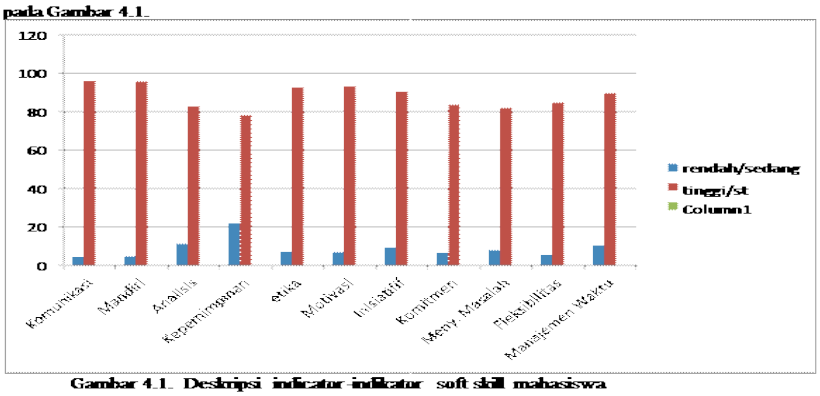
No.	Value	Criteria
1	1	Perfect
2	0.75-0,99	Very strong
3	0.5-0.74	Strong
4	0:36 to 0:49	Moderate
5	0-0.35	Low

RESEARCH RESULT

Overview Soft Skill Student Majoring Chemical Education contains programs PPL 1

There are two kinds of analytical results presented are the analysis using descriptive statistics and results analysis using inferential statistics. Data from descriptive analysis of the description of soft skills of students Study program study chemistry as shown in figure 4.

Based on Figure 4 shows that the average soft skills of students chemical education which learning with project -based learning models in the course PPL 1 is for the category of soft skills of high and very high at 84.5% of students were in the category very high. While the category of low and very low at only 15.5% of students. If seen the percentage of each indicator soft skills of 11 indicators of soft skills of students 10 indicators included in the category of extremely high for soft skills high / very high, namely: communication (95.8%), Independent (95.3%), analysis (82.9 %), ethics (92.7%), motivation (93.1%), initiative (90.6%), commitment (83.4%), to solve the problem (81.9%), flexibility (84.7%), management time (89.6%). While the first indicator of the high category, leadership(78.1%). Description of soft skills student department of education chemistry class A can be seen



Gambar 4.1. Deskripsi indicator-indikator soft skill mahasiswa

Correlation between Tasks Project Problem Based Learning (PBL) with Soft Skill Students Prodi P. Chemistry Course PPL 1

The relationship between the tasks given to a student project with a soft skill on the course PPL 1 can be seen in Table 5. Based on the processed data is seen in Table 5 that the correlation *Product Moment* of 0.282 which showed that the correlation is relatively low. If associated with a big contribution of variable assignment project towards soft skills of students can be seen from the test double regression.

Table 5 Correlation & Coefficient contributions Tasks Project with SOFTSKILL Students

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

Predictors: (Constant), Project Tasks

Seen the contribution of the task project amounted to 7.9% against the soft skills of students and many variables other that helped influence the student's soft skills that researchers have not been thorough.

Correlation between Performances with Soft Skill Students Prodi P. Chemistry

The relationship between the Performance of students in practice microteaching given at least twice to appear for every student with the subject soft skill PPL 1 can be seen in Table 6. Correlation between Performances in teaching in the micro classroom with soft skill student department of chemistry education in subjects PPL 1 of 0609 with a strong relationship category.

Table 6. Coefficient Contribution towards Soft Skills Students

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.619 (A)	.383	.370	7.58728

Predictors: (Constant), Value Performance

According to Table 4.5 shows the contribution of variable performance of students by 38.3% against the soft skills of students. If the comparison between the variable duty project with the performance of students, then that contributed greater is the performance. Although it's true that what the tasks project the students that will be shown as a performance, but once again soft skills is associated a lot with the ability to internally from within the students themselves as motivation, flexibility, and commitment.

Correlation between Project Tasks with Student Performance of Chemical education

The relationship between project tasks students in practice microteaching given at least twice to appear for every student by student performance on the course PPL 1 can be seen in Table 7

Table 7 Correlation between Task Performances with the Project Students

		value Performance	task Project
Pearson correlation	value Performance	1,000	.295
	task Project	.295	1,000
Sig. (1tailed)	value Performance	,	.021
	task Project	.021	,
N	value Performance	48	48
	task Project	48	48

It can be seen that the correlation between the task of the project and the performance was in a category low. The second variable is the variable smoking that affects the soft skills of students. Thus do not need to see the coefficient of contribution between these variables.

DISCUSSION

The model of learning that is applied to the student department of chemistry education programmed PPL 1 PBL (Project Based Learning) is a model that is based on the theory of constructivism (Slavin, 2009). By giving the task of project such as the design of the device micro learning in every presentation, then students at least will be challenged to create and showcase the best in terms of selection of models, methods and techniques as well as the suitability steps. The suitability of material and competency is achieved, the selection of appropriate media, preparation of the RPP which according to the model, learning until the application in micro learning.

Students based learning model by using the lecture method, is considered irrelevant and is not suitable for improving the soft skills of students. The conventional model not only eliminates the potential for creativity, but also do not foster self-reliance, motivation, and initiative of students, and therefore required the models more innovative and constructive so that potential students, both potential cognitive, affective and psychometric can develop optimally, and through approach to project known as Project-based learning (PBL) learning outcomes that can produce intelligent, skilled, and have a good soft skills (Lucas, George, 2005; Daniel K. Schneider, 2005).

Based on the descriptive analysis on the 48 students who undertaken the program PPL 1 shows that the average soft skills of students amounted to 84.5% with a very high category. From the 11 indicators of student soft skill seen that the 10 indicators included in the category of very high, namely communication, independent, ethical, initiative, motivation, commitment, analysis, time management, problem solving and flexibility. While only one indicator of which belongs to the category of high-namely leadership. Very likely occur due to stages of the PBL model indicators students' soft skill are very appreciated and stimulated. The execution of the project certainly requires independence, initiative and motivation. In completing the project requires good time management, communication skills and analytical and problem solving. Ethics and flexibility will be the effect of concomitant/follow up of other indicators.

The results of the analysis of the correlation between performances with soft skill shows the strong relationship, while correlations between tasks project with soft skills and project tasks with performance shows the low relationship. This shows that the appearance as the realization of the project has influenced more to soft skills compared to the completion of the project itself. Therefore, of a student more less animate or not involved mentally in the construction of the project so that the soft skill internalization not optimally appear. This is in line with the opinion of the cognitive psychology (Slavin, 2009) that the child or student who involved mentally will have an understanding and effect transfer the good one. Performance or appearance in accordance with the theory is very strongly influenced by the ability of the child and influenced by internal and external factors.

CONCLUSIONS

Based on the results and discussion of the study, it was concluded:

1. Students' soft skill of department of chemistry education programmed PPL 1 are in the very high category.
2. There is low correlation between the provisions of duty project with student's soft skill Prodi chemical education programmed PPL 1.
3. There are stronger correlations between performances with students' soft skill that programmed PPL 1.

4. There is low correlation between the provision of project tasks and the students' performance of chemical education programmed PPL 1.

Recommendations

Soft skills necessary to always stimulated by the educators and learners to produce a golden generation, it is important to implement innovative models of learning lectures.

REFERENCES

Arikunto, S. 2005. *Fundamentals of Educational Evaluation.* Jakarta: Earth Literacy.
_____. 2006. Procedure Research: A Practical Approach. Jalarta:
Rineka reserved
Butcher, C., Davies, C., & Highton, M. 2006. *Designing learning from outline to effective teaching module* .New York: Routledge, Taylor & Francis Group.
Coates, D.E 2006. People Traning Skill: Are You Getting a Return on Your Investmen. Cited 15 July 2010
Google Translation of http://www.2020insight.net/Docs4/PeopleSkills.pdf
Daniel, K. Schneider. 2005. *Project-based learning* . [On line]. Accessed on 18 October 2011 in http://edutechwiki.unige.ch/en/Project-based_learning .
Dimyati, M. 2000. Democratization of Institutions of Learning in dalamMasyarakat
Directorate General of Higher Education - 2004. Term Strategy for Higher Education
Length, 2003 - 2010. The Ministry of National Education, Republic of Indonesia, Directorate General of Higher Education Gregory, RJ 2000. *Psycological Testing History* . Principles and Application. Singapore:Allyn & Bacon Inc.
Lucas, G. (2005). *Instructional Module Project Based Learning* .Online: accessed 13 July 2010 Google Translation http://www.edutopia.org/modules/PBL/whatpbl.php.
Markham, T. (2003). *Project-Based Learning Handbook* (2 nd ed.). Novato, CA: Buck Institute for Education.
Rusman, 2013. *Models of Learning Developing Teacher Professionalism* . Jakarta: Rajawali Press
Suyanto, et al. 2013. *"Becoming a Professional Teacher".* Jakarta: The Essence Erland Grop.Suryabrata, Sumadi. 2008. *"Educational Psychology".* Jakarta: Rajawali Pers.
Slavin. R. E. 2009. *Educational Psychology* Theory and Practice. Eighth Edition. New York: Hopkins University
Hamidah, S. 2012. Integrated Learning Model Soft Skills Students of SMK Prodi Catering. *Journal of* Vocational Education. Vol. 2 No. February 1, 2012. FT UNY pages 53-60.
Syamsidah. 2014. *Soft Skill and Improvement of Labor Quality.* Paper presented at the International Seminar in Bandung UPI.
Trianto, 2009. *Models innovative Learning-progressive* . Jakarta: Kencana
Wagiran. Model 2013. Strengthening Soft Skills in Realizing Candidate Master of Professional Vocational Character. *Journal of Education,* Vol. VII. No. 2 may 2013.
Pages 199-217.

The Effectiveness of Using Sentence Makers in Improving Writing Performance among Pupils in Lubok Antu Rural Schools

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Abstract: ESL writing is a critical problem in Lubok Antu. This study investigated the effectiveness of using Sentence Maker in improving ESL writing among the Year 5 and Year 6 pupils in Lubok Antu rural schools. For this study, quantitative data were required. A number of 22 ESL learners were asked to write an essay as the pre-test. All the 22 essays were carefully rated and pre-test data were obtained. The results revealed the low performance in ESL writing. Then, intervention was introduced in the while-process. Learners were introduced to the Sentence Maker tool to visually aid them to understand sentence pattern more clearly. Post-test was conducted to collect data on the grades after intervention was done. Comparison between the pre-test and the post-test data revealed that Sentence Maker has been a useful tool that aids in improving learners' ESL writing. The findings of this study may benefit the primary ESL learners particularly those from among the rural schools in Lubok Antu. Educators may also find this tool as beneficial as it is easy to use. In the near future study should include the common errors in ESL writing among the rural ESL learners in the district and their perception in using Sentence Maker to address the errors.

Keywords: esl learners, esl rural learners, esl writing, writing performance, sentence construction

The English language, being the second language of the nation is being formally taught in every level of education – from the preschools, the primary schools, and the secondary schools right to the varsities. The English subject is a compulsory subject to take from Primary 1 to Form 5. The English language functions to equip students with the necessary language skills to enable them to continue their schooling to the higher levels, as well as to prepare them for employment. Acquiring cetain levels of the English language enables them to look for online resources from the Internet. They can also network with students from all over the world to gain access to systematic way of learning.

One of the most crucial ESL skills is the writing skills. Having being given much emphasize within the curriculum, it is vital that students are comfortable with their ESL writing. However, it is easier said than done because compared to L1 learners, L2 learners have to bear the struggle of putting accurate grammar together to produce structurally-correct sentences. This is due to the fact that L2 learners have less knowledge and confidence in using the language compared to the L1 learners. In general, teaching and learning of the English as the second language is a big challenge for both teachers and learners in Malaysia.

The Malaysian Education Blueprint 2013 – 2025 (MOE, 2012) has endorsed the implementation of the new Standard Curriculum that gives an additional allocation of time (300 minutes) for the English Language subject in both primary and secondary schools. This is mainly to address the issue of low level of competency in the particular subject which used to be taught in shorter time of 210 minutes. The new curriculum has been designed and developed to have such emphasis to encourage the aspects of learners' literacy and critical thinking.

Comprehension and essay writing comprising the critical thinking elements are being absorbed into learners' ESL learning and evaluations.

"Writing stimulates thinking, compel students to concentrate and organise their ideas, and cultivate their abilities to summarize, analyse and criticise. It also gives emphasis to constant learning in, thinking in, and doing reflection in the English language" (Maghsoudi & Haririan, 2013). In Malaysian primary level of educations, it is compulsory for learners to sit for a public examination known as the Primary School Achievement Test, known also as "Ujian Pencapaian Sekolah Rendah (UPSR) before they move on to the secondary level of their education. The English Language comprises of two sets for evaluation papers, namely the Comprehension (Paper 1) and the Writing (Paper 2) papers. The English subject has proven to be the most difficult subject for the students to score well. Incompetency to write well for the Writing paper is one of the main contributing factors to that. Starting 2016, Paper 1 and Paper 2 are being graded separately, unlike previous practice of combining marks of both papers to come up with a single grade for the English paper. For the writing paper, the sets of questions are divided into three main sections. In Section A, students are required to fill in the blanks of a passage using appropriate answers. 10 marks are allocated for this section. In section B students are required to write three answers and write an email, where 15 marks are allocated. Whereas for Section C, students are required to write a short essay of 80-120 words using given stimuli as guide. 25 marks are given for this section. Students find themselves having a hard time to score well in Section C due to their inability to build varieties of written text using various styles, incorporating imaginative elements into their narrative writing, using different language functions to address the difference in purpose, and giving ample content to write relevant content in sufficient, precise manner. It is a complex cognitive activity involving attention at multiple levels: thematic, paragraph, sentence, grammatical and lexical (Lavelle, Smith & O'Ryan, 2002).

Writing is a series of processes namely the planning, production, editing and revision of a written text; with integration of contents and coordination as a whole. The Malaysian government has carried out many programmes to attract particularly rural area learners to learn and master the English language (Ilyana, et all, 2015). One of them has been the First Step Program, a program that emphasized on reading and writing among the rural students to help improve their level of English writing skills. Learners in the rural schools, particularly in the district of Lubok Antu, Sarawak find it difficult to have any significant interest in the English language learning. The language itself, to them is not seen as having any immediate significance and importance in their daily lives. According to Mustapha, "a great number of Malaysian students are passive learners" (1998). This is especially true in Lubok Antu rural schools. The command of the English language is still poor among rural learners in Lubok Antu. It is only seen as an examination subject; and ESL educators in Lubok Antu find it difficult to maintain any genuine interest in the subject among their learners after examination is over. Learners in rural Lubok Antu are highly dependent on their teachers for sources of revision and information. This is due to the lack of important and basic facilities available such as the Internnet connectivity, power supply and public linking roads in Lubok Antu rural schools.

This study aims to investigate the usefulness of the Sentence Maker in helping the Year 5 and Year 6 ESL learners in Lubok Antu rural schools overcome problems in constructing correct sentences.

LITERATURE REVIEW

What is Second Language writing?

According to Grabe and William (2001), second-language writing is the study of writing performed by non-native speakers or writers of a language as a second or foreign language. Myles in 2002 stated that SL writing involves composing, which implies the ability to tell or retell pieces of information in the form of narratives or description, or to transform information into new texts, as in expository or argumentative writing. Writing is an essential skill in ESL teaching and learning and it will never go obsolete in education (Riswanto and Putra, 2012). By telling and retelling information, this of course would involve composing of the written piece, or transferring of information from one form of test to a different form of text. As writing skill requires ideas development and organization, it tends to be a tedious and difficult task for the rural ESL learners to accomplish. Dunsmuir, et al (2014) states that the key domains of writing reflect a focus on ideas development, vocabulary, sentence structure, grammar, spelling, punctuation and handwriting mechanics. This is where it explains that in order to become good writers, learners must be frequent in practising their SL writing.

Why is it important?

Writing is an integral and necessary skill when learning a second language as communication is not only done orally. Writing is necessary if a person is looking to study or work in a particular country. Writing also results in increased practise using the language (AbiSamra, 2002). Therefore, the key domains of writing reflect a focus on ideas development (rhetorical skills), vocabulary, sentence structure and grammar (writing processes), spelling, punctuation and handwriting mechanics (Dunsmuir, et all, 2014).

How does it help?

Teaching materials "contextualize" the language learning. In addition, teaching materials help to bridge the gap between the language being taught in the classroom and the language used by real people (Genhard, 1996). Being explorative and fun are essential parts of students' learning experiences, interactive learning environment also helps the students to develop positive learning behaviours in the learning process (Kung and Pui, 2012)

METHODOLOGY

The study has been carried out upon 22 rural ESL learners in the district of Lubok Antu, Sarawak. The learners consist of 13 Year 5 pupils and 9 Year 6 pupils who have undergone at least 5 years of ESL learning during their schooling life. Out of 22 participants, 8 are females and 12 are males. The levels of competency among the participants vary from low-achieving learners to below average. The study has been an action research whereby it involves a pre-test as an initial evaluation, an interventional step where the Sentence Maker is being utilized, and a post-test to measure the effectiveness of the Sentence Maker in improving essay writing among the study participants.

For the pre-test, participants were given a short essay question. The tool was a guided narrative essay typically featured in the Section C of English Paper 2. Participants were required to write between 80-120 words of narrative essay based on the pictures and keywords given in the question. The written essays were checked and marked according to the latest UPSR KSSR

marking scheme. The scores of the pre-test served as initial data to serve as a comparing tool against the data obtained from the post-test (which will be administered after 5 weeks of intervention). Writing errors were identified to check for any similarity in error types committed by the participants. This is important to ensure that the right approach is to be chosen and used during intervention.

The intervention took place in 5 weeks. Details on the intervention program (steps 2 – 6) are shown as follows:

Table 1: Steps & Procedures

STEP	ACTIVITY
Step 1 (Week 1) 11 July 2016	• Revisit previous lessons on tenses (Present Tense, Past Tense, Present Continuous Tense, Past Continuous Tense) • Pre – Test
Step 2 (Week 2- 1st Session) 18 July 2016	• Teacher introduced the Sentence Maker to the pupils. • Explained (with demonstration) how to use it. • Explained why pupils need to use it/the purpose of the sentence builder.
Step 3 (Week 3 – 2nd Session) 25 July 2016	• Constructing simple sentences using Present Tense • Teacher showed some example • Pupils explore the sentence builder and build their own sentences. (In groups) • Discussion on their works.
Step 4 (Week 4 – 3rd Session) 1 August 2016	• Constructing simple sentences using Past Tense • Teacher showed some example • Pupils explore the sentence builder and build their own sentences. (In groups) • Discussion on their works.
Step 5 (Week 5 – 4th Session) 15 August 2016	• Constructing simple sentences using Present Continuous Tense • Teacher showed some example • Pupils explore the sentence builder and build their own sentences. (In groups) • Discussion on their works.
Step 6 (Week 6- 5th Session) 22 August 2016	• Constructing simple sentences using Past Continuous Tense • Teacher showed some example • Pupils explore the sentence builder and build their own sentences. (In groups) • Discussion on their works.
Step 7 (Week 7 – 6th Session) 29 August 2016	• Post- Test

Finally, a post-test was administered in the 7th week of the study to evaluate the participants' essay writing after 5 weeks of intervention program. The post-test scores determine the effectiveness of using the Sentence Maker in addressing the ESL writing incompetency among sample participants.

RESULTS AND DISCUSSION

Among the 20 participants who were involved for the study, 8 participants, or 40% were female and 12 participants or 60% were male. Participants belonged to the age of 11 and 12 years old. They either belong to the very low/limited users to below average users of ESL. As shown in Table 2, participants' pre-test and post-test sores were collected. The data captured in both tests were later interpreted using the paired samples T-Test to determine whether the is any significant effect in using the Sentence Maker in the intervention stage to improve writing performance among the study participants.

Table 2: The Pre-Test & Post-Test Scores of the Participants

NAME	PRE TEST	G	POST TEST	G
S1	9%	E	16%	E
S2	49%	D	80%	A
S3	40%	D	86%	A
S4	8%	E	12%	E
S5	32%	E	60%	C
S6	55%	C	100%	A
S7	30%	E	54%	C
S8	27%	E	50%	C
S9	56%	C	100%	A
S10	66%	B	88%	A
S11	50%	C	80%	A
S12	55%	C	86%	A
S13	14%	E	36%	D
S14	64%	B	88%	A
S15	54%	C	72%	B
S16	50%	C	68%	B
S17	48%	D	62%	B
S18	68%	B	80%	A
S19	35%	D	49%	D
S20	24%	E	40%	D

Based on the pre-test scores, only 45% of the participants passed the writing test. The 55% failing scores clearly showed the low-level writing competency among the samples. 7

participants scored an E, 4 participants scored D, 6 scored C and 3 managed to score B. After five weeks of intervention using the Sentence Maker, a significantly improved scores were recorded where 9 samples managed to score an A, 3 scored B, 3 scored C, 3 scored D and only 2 scored E. This means that the passing percentile has increased to 75% from the initial 45% before the intervention of the Sentence Maker.

To compare the participants' scores for the pre-test ad the post-tests, a paired-samples T-Test was done. Based on **Table 3.1** and **Table 3.2**, it is shown that there was a significant increase in the post-test after the administration of the Sentence Maker.

Table 3.1: Paired Samples Statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test	41.70%	20	18.496%	4.136%
	Post-Test	65.35%	20	25.580%	5.720%

Table 3.2: Paired Samples T-Test

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-Test - Post-Test	-23.650%	11.811%	2.641%	-29.178%	-18.122%	-8.955	19	.000

CONCLUSION AND IMPLICATIONS

Based on the analysis result done upon the scores of the pre-test and the post-test of the 20 study participants in a rural primary school in the District of Lubok Antu, it was concluded that the Sentence Maker is a useful interventional tool to assist the lower-competence ESL learners in their ESL writing. Writing is not an easy task as it is a highly complex and demanding task that requires a number of skills to be performed (Ilyana, et al, 2015). It is a complex cognitive activity involving attention at multiple levels: thematic, paragraph, sentence, grammatical and lexical (Lavelle, Smith & O'Ryan, 2002). The Sentence Maker consists of segmented, visual sentence-building tool that is easy to use and serves the purpose of helping ESL learners in their sentence-constructing in a very easy way to understand.

The findings of this study may help other rural ESL educators in solving the similar problem of having lower-competency ESL learners with their sentence and essay writing problems. However, no matter how beneficial the Sentence Maker seems to be in addressing the low writing proficiency level among the rural ESL learners in Lubok Antu, there is always room for improvement particularly where writing is concerned. It is suggested that the future research to include the types of common errors commonly done among the rural ESL learners in Lubok Antu, and the perception of learners and teachers towards using the Sentence Maker to address the problem of English writing. It is also suggested that the researcher include a wider scope of participants in the future to include more rural primary schools in Lubok Antu so as to have a wider view and result of the study.

REFERENCES

Bandura, A. 1986. Social foundations of thought & action: A social cognitive theory. New Jersey: Prentice-Hall.

Bottomley, D., Henk, W., & Melnick, S. 1997. Assessing children's views about as writers using the writer self – perception scale. *The Reading Teacher* 51.4, 286-291.

Ilyana, J., Melor, Md-Y & Hamidah ,Y. 2011. Improving Malaysian rural learners' writing skill: A case study. *Procedia Social and Behavioral Sciences* 15, 1845-1851.

Lavelle, E., Smith, J. & O'Ryan, L. 2002. The writing approaches of secondary learners. *British Journal of Educational Psychology* 72.3, 399-419.

Malaysia Ministry of Education. 2012. Preliminary Report Malaysia Education Blueprint 2013-2025. Retrieved from http://www.moe.gov.my/userfiles/file/PPP/Preliminary-Blueprint-Eng.pdf

Melor, Md-Y. & Nur R.K.R.A. 2011. Motivation and Attitudes for Learning English Among Year Six Students in Primary Rural School. *Procedia Social and Behavioural Sciences*, 15: 2631–2636.

Siti, S.C.M., and Melor, Md-Y. 2014. *Attitudes and motivation towards learning English among FELDA school Students*. Aust. J. Basic & Appl. Sci., 8(5), 1- 8.

Akinwamide, T.K. 2012. The Influence of Process Approach on English as Second Language Students' Performances in Essay Writing. *ELT*, 5, 16-29.

Dunsmuir, S., Kyriacou, M., Batuwitage, S., Hinson, E., Ingram, V., & O'Sullivan, S. 2015. An evaluation of the Writing Assessment Measure (WAM) for children's narrative writing. *Assessing Writing*, *23*, 1-18.

Firmansyah, A. 2015. The Influence of Mind Mapping Technique and Students' Attitude toward Students' Ability in Writing a Recount Text of the Eighth Grade Students of State Junior High School 45 Palembang. RIPTEKSI KEPENDI- DIKAN PGRI.

Yunus, M.M., & Chien, C.H. 2016. The Use of Mind Mapping Strategy in Malaysian University English Test (MUET) Writing. *Creative Education,* 7, 619-626. http://dx.doi.org/10.4236/ce.2016.74064

A Visual Art Education Curriculum 2013 in Junior High School Based Entrepreneurial on the to Draw Ornament

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Abstract: National Education Indonesia aims to educate the nation's life. Art education aims to refine the manners learners and to growing hibiscus the sensitivity of taste, aesthetic, artistic, critical, appreciative attitude and creative in every learner thoroughly. Art education in Junior High School levels is education through art. The problem is that art education especially visual art from time to time has not experienced significant changes. So the development of the world of visual art education in Indonesia appears to be static. Some of the factors that affected the old mindset is the teacher of art subjects, only that teachers deliver material (content based learning) and not the competence achieved or "what can students" (competency based learning). Process analytical study is still centered on the teacher, whereas in the curriculum 2013 of teacher as a facilitator, and the lesson activities centered on students. In the curriculum 2013 of visual art education adapted to the development of the students and the times so it needed an innovation in learning visual art. Learning in the visual art, students learn through art, students can develop or optimize the capabilities or potentialities of the other are inside each learner, sharpen the imagination or the expression of students. Learning is an effective learning and support student success. Entrepreneurial learning is a model to facilitate learners to be creative, innovative, productive and oriented added value. Learning that is useful for the development of the students and the world of visual art education.

Keywords: visual art education, entrepreneurial

National Education Indonesia aims to educate the nation's life. Art education in the curriculum of the lesson of Seni Budaya (*the lesson of art and culture*) in the Junior High School mentions that art education aims to refine the manners of learners and to growing hibiscus the sensitivity of esthetic taste, artistic, critical, appreciative and creative in the every learners thoroughly. As for the learning model of entrepreneurial facilitate learners to be creative, innovative, productive, and oriented on added value. That is proper to the characteristic of art and culture lesson which closely relates to the creativity of learner.

The curriculum is compilation of lesson that is delivered by teacher and learned by learners. Curriculum 2013 is curriculum that can produce Indonesian people which are creative, innovative, through the strengthening of attitude, skill, and integrated knowledge. Therefore, the process of learning in the education units is conducted interactively, inspirative, fun, challenging, and motivate the learner to active participation, and give them enough room to the initiative, creative, and independent which proper to the talent, interesting, and physic development and psychology of the learners.

The principle of Seni Budaya learning (art and culture learning) is recreated which have usefulness value, aesthetic, and artistic to build learners harmonious. Seni budaya education (art and culture education) encourage the learners to reach multi intelligence that consist of intrapersonal intelligence, interpersonal, visual partial, musical, linguistic, logical math, intelligence adversity, kinesthetic intelligence, intelligence of spiritual and moral, and

inelegance of emotional. This intelligence can help in developing of creativity, both of in the thinking process, appreciation, and art creation.

The subjects of Seni budaya has main role in the development and need of learner because of the unique, meaningfulness, and usefulness. Seni Budaya learning is conducted to give aesthetic experience that cover of conception ability aspects, appreciation, creation, and art creating two and three-art dimensions. The fourth things synchronize with the main competition in the curriculum 2013.

The characteristic of Seni Budaya lesson (art and culture lesson) is developed by challenging in the century 21st, where acquisition and utilization information technology and communication become part of learning. Therefore, the ability in acquisition and utilizing information communication technology can be customizable with the characteristic learning Seni budaya (art and culture) who answer the challenging of century 21st must attend the need of region and learners. So this lesson can be filter of foreign culture also encourage the learners to have wisdom to local culture.

CONCEPT OF ART LEARNING IN JUNIOR HIGH SCHOOL

Art education is formed from art education. This takes implications that process of art education is not only functioned to train children in order to be able to master in the art process and technique but through this process is also functioned as education tools in developing learner in order to be optimal. Learning concept is conducted to give experience and prowess in creating art and appreciating the art is conducted in appreciating the process (Soebandi, 2008: 44).

Generally, the art education, there two is education of art and education through art. An education of art is learning about art, someone learns art to master the art. This learning is applied in the vocational schools (SMSR or SMK) or in the college with the purposes the learner can master the art. Education through art is leaning through art, the learners learn art to get another, for the example by learning art the learner can refine the manners learners, grow the hibiscus the sensitivity of aesthetic taste, grow the creativity, balancing between right and left brain (logical, math, and taste), making sharp the imagination, expression, appreciation and to developing and optimizing the other ability of learners. Education through art is implemented at the elementary school, junior high school, and senior high school. Thus, learning subjects of art at level of junior high school is education through art.

In the curriculum is mentioned that the subject of art have multilingual, multi ddimensional, multicultural and multi intelligence. The fourth aspects are supporting each other in the learning of art at elementary school to senior high school.

1. Multilingual
   The multilingual develops the ability of student in their self-expression creatively with any kinds of way and media, utilizing the visual language, sounds, moving, roles or the combination.
2. Multidimensional
   The Multidimensional develops the ability of student about art concept, including of knowledge, understanding, analysis, evaluation, appreciation, and creation by combining harmonious of the elements of aesthetic, logical, and ethics.
3. Multicultural
   The multicultural develops the awareness and the ability of student to appreciate the kinds of culture in this country and abroad this is the formation of democracy that enable to the student to have good behavior and tolerance to the diversity value in the community. This

attitude is needed to build the awareness of student about the several of culture value that is living in the middle of community.

4. Multi-intelligence
   The multi-intelligence that is the art role builds the harmonious which is proper to the development of student psychology is the intelligence of intrapersonal, interpersonal, visual spatial, verbal linguistic, musical, logical math, physique-kinesthetic, and so forth.

The learning is in the middle of 20th century is interpreted as a process of giving guidance and advancing the ability of learner which becomes center is the teacher. In the next development of learning is more directed to student center or student centered learning. Teacher as facilitator encourages the student to find the meaning themselves through solving the problem in the real terms, in order to the learner can construct their knowledge. The facilitator roles as follows:

- To help the learner get their self-understanding about the subjects.
- To give the guideline and creating the environment of learner to draw conclusion themselves.
- The Facilitator, curiously, make dialogue with the learners
- The facilitator can adapt the best studied experience by using initiative of the learners to control the studied experience goes to the value that the learner create (Barnawi & Arifin, 2012: 71-72).

Follows are the differences between content based learning and competency based learning can be seen in the table below:

Content Based Learning	Competency Based Learning
The learning orients to the subject and content Teacher centre Only assess in the product or the result of the study	The learning orients to the mastery of the competency Student centre, teacher as facilitator The assessment use authentic assessment

The setting of the art and culture curriculum in 2013 response to the challenges of education in the 21st century that emphasize the conception with technique understanding and work of art procedural. Attitude aspects is conducted through appreciation activity in the formation of individual culture that have character as honest, responsibility, empathy, and appreciation to the other people. Skill aspects through expression activity and creation are conducted with implementing the art works that is useful to the community, so it can optimize the creativity of innovative art work.

The standard competency of graduation (SKL) for art-culture subjects in the SMP is regulated in the Permendikbud No. 54 2013 as follows:

a. Attitude competence
   Means their behaviors which are expressed that they are good people, noble, bookish, confidence, and responsibility in interacting effectively with the social environment and socialize and the existing.
b. Social competence
   Having factual knowledge, conceptual, and procedural in the knowledge, technology, art-culture with insight knowledge nationality, statehood, and civilization relates to the phenomenon and the events that seemed.
c. Skill competence
   Having thought and acts ability that is effective and creative in the realm of the abstract and concrete that is learnt in the school or other resources.

The curriculum 2013, in the subjects of art-culture emphasize at creativity, where the intelligence based learning will not give the significance result, but only increasing 50% that based creativity. Therefore two-thirds of someone creativity ability is obtained through

education, another third comes from genetic, and the converse is true for intelligence capability. Based on the explanation of the creativity, the creativity is the important aspects in curriculum and development of art-culture learning, especially in the visual art.

Therefore, the learning of visual art education in the curriculum 2013 use competency based learning approaches. The effective learning can support the success of the students. According to Soebandi (2008: 46) the principles that must be considered to conduct the learning activity those are paying attention the explanation of the subjects systematically, gradually, adjusted to the level of development of the learner. For the example, in order to the student can draw a shape, for the first they are trained to make line, learning shading technique, mastering the impression of light and dark and etc.

According to Sani, (2013:41) in his book (Inovasi Pembelajaran" (innovation of learning) says that the condition of the learning which is effective must include of three factors, those are:

1. Motivation in the study (why must learn)
2. The purposes of the study (what will be learnt)
3. Suitability of learning (how the way to learn)

In the learning visual art, the learner will study well if they are ready to study. Giving learning motivation on the first learning must be considered by learner. The learning motivation is the combination of learner focus about what must they learn. The purposes, what is going to reach will give the clearness to what the learner learns. A good learning is also supported by suitability of learning material with curriculum and environment condition, the availability of facilities and infrastructures to support in the learning process. With the condition of the differences of geography environment with the subject of art-culture in the other region that must give good contribution for environment and world of education

THE MODEL OF ENTREPRENEURIAL LEARNING

The model of entrepreneurial is concept framework of learning that describes the steps of learning which is center on the student to reach the certain purposes and get the entrepreneurial competency that are creative, innovative, productive, and orienting in added value.

The steps of entrepreneurial learning are:

1. Exploring: the student fined the information with observing, asking, collecting data through video/image that is asked by teacher.
2. Planning: the student make a work planning.
3. Doing: the student implements the planning.
4. Communicating: the student communicates the work outcomes.
5. Reflecting: the student give the assessment to the friend's creation (Pranata).

The activity of the students in the entrepreneurial learning:

The Stages of Entrepreneurial Learning Model	The Contents of Student Activity
1. EXPLORE Observation	➢ Listening and recognizing the ideas, creations, phenomena have in order to understand fully, thoroughly creation or phenomena's that is learnt. ➢ Train to the senility and responsive to the ideas, creation, and phenomena in the around.
Asking	➢ Recognizing the ideas, creations, and phenomena's deeply with submitting the critical and creative questions.

	➢ Submitting the questions about ideas, creations, phenomena's and themselves in order to find problem, need, or opportunity to build a new creation which is innovative.
Collecting the data /idea	➢ Finding data, information and ideas to the possible built a new creation which is innovative. ➢ Finding new ideas about an innovative creation which is produced. It is better the creation have added value.
2. PLAN	➢ Planning the new creation which is innovative in the form of model or sketch or that is completed by information about the size and material that is used, ➢ Making work plan and providing the equipment's, materials and procedure to make innovative creation that will be produced.
3. DO	➢ Realizing the works with implementing the planning to realize the design works which is produced. ➢ Organizing themselves to be as compact team that works collaboratively and consistence based on work plan to realize the creation with noting the standard of attitude. ➢ Calculating the value of work profit with make details of the financing and the advantage and set the cost of production per unit/dozen and selling prize per unit/dozen.
4. COMMUNICATE	➢ Communicating innovative works which have been produced to friends, teacher, or work users in order to get response, suggestion, criticism, or prices. ➢ Training communicating skills and recognize the response from community.
5. REFLECT	➢ Doing the assessment themselves to the process and work outcomes based on the personal experience, group, friends, teacher, or work users. ➢ Recognizing the weakness and the strength themselves or group to improve to the next learning cycle.

THE CONCEPT OF DRAW THE ORNAMENTS

Indonesia has wealth diverse that is ornaments. The cultural diversity of Indonesia is a reality and wealth of country. The cultural diversity is the characteristic that is pride. That diversity creates the unique, beauty and pride. Every region has ornament which is difference, neither of form, characteristic of ornament, meaning and implementation of ornament. Ornament of Indonesia can be found in the batik art, sculpture, weaving (tenun), architecture, temple, and webbing.

The ornament (English) is also called with ornament (Bahasa Indonesia). The ornament comes from Greek that is "ornare" the meaning is ornaments or jeweler. The Ornaments have several of motifs and the motif is used as trimmer that we decorate. Therefore, motif is basic to decorate the ornament. The ornament is to decorate fields or objects, so the objects become beauty (Soepratno, 1997: 11).

In the wide understanding, the ornament is the composition of decorative patterns which uses motif with certain rules in the fields or space so it produces the beautiful form. Decorative patterns is the basic elements that can be used as guidance in the designing the garnish. Decorative motifs is the essence of mind and basic form in the ornaments, which covers of creating God such as Human, animal, plants, mountains, rock, water, cloud, and etc. also the outcomes of creation of human. Form of ornaments in the Indonesia is forms that are stylized shape but it is not leaving the original characteristic.

The ornament can be differenced into three motifs:
1. Geometric motif those are double volute, tumpal, meander, swastika and kawung.
2. Non-geometric motif those are human, animal, and plants.
3. Motif inanimate those are water, fire, cloud, rock, mountains, and sun.

Recognizing Indonesian Traditional Ornament

Generally carving motifs which are in Java and Bali always uses tilasi technique from plants, animals and even sometimes from humans also. Carving motif has the graceful shape, the rhythm with flexible style, noble and dignified, as if describe the character of the king and the people. The names of the carving motif as follows:
The names of motif associated with the names of the kingdom: (1) Motif Pajajaran, (2) Motif Mataram, (3) Motif Majapahit, (4) Motif Bali. There are some typical regional patterned motifs which are known in the further development, namely: (1) Motif Jepara, (2) Motif Madura, (3) Motif Cirebon, (4) Motif Pekalongan, (5) Motif Yogyakarta, (6) Motif Surakarta, (7) Motif Semarangan.

Beside of the royal motifs and typical with regional, there are motifs which in the development influenced by the common motifs, namely: (1) Lotus Motif, (2) Cloud Motif, (3) Coral Motif, (4) Clove Flower Motif, (5) Flowers Motif, Fruit Motif and so forth

Tools And Materials For Drawing Ornament

In general, the tools and materials that used in drawing ornament are pencil, ruler, dye and paper. There are various types of pencils, and they are pencils type H, B, 2B, 3B, 4B, 5B, 6B, 7B, 8B and EB. Pencil type H (hard) is a pencil with the lowest blackish intensity, B (black/soft) and EB is a pencil type with the highest blackish intensity (Apriyatno, 2007: 2).

Ornament Application And Work Technique

Materials that can be used to draw ornament are the paper media with the pencil and colored pencils and also poster paint or acrylic paint. The application of the ornament can be applied to the textile media, wood and other natural materials. For the textile material can be seen in the batik works, t-shirts design, bags, and in the wood material, e.g. household furniture carving works, wall hangings relief, etc.

Thus, the fine art education in curriculum 2013 is an education which teaches students toward mastery of the attitude competency, the knowledge competency, and skill competency with the student-centered learning. Fine art learning provides added value for learners, explore and develop the potential of learners in accordance with the development of education. Ornament which is as the rich heritage of Indonesian nation can be known by the youth generation, so that it can be maintained the continuity and developed for the country's progress and the fine art education in Indonesia.

REFERENCESS

Apriyatno, V. 2007. *Cara Mudah Menggambar dengan Pensil*. Jakarta: Kawan Pustaka.

Asmani, J.M. 2015. *Tips Menjadi Guru Inspiratif, Kreatif, dan Inovatif*. Yogyakarta: Diva Press.

Barnawi & Arifin, M. 2012. *Etika dan Profesi Kependidikan.* Yogyakarta: Ar-Ruzz Media.

Kementrian Pendidikan dan Kebudayaan. *Buku Guru Seni Budaya Kelas VII SMP Edisi Revisi* . 2016. Jakarta: Pusat Kurikulum dan Perbukuan Balitbang.

Pedoman Penulisan Karya Ilmiah: Skripsi, Tesis, Disertasi, Artikel, Makalah, Tugas Akhir, Laporan Penelitian . Edisi Kelima. 2010. Malang: Universitas Negeri Malang.

Soepratno, B.A. 1997. *Ornamen Ukir Kayu Tradisional Jawa 1*. Semarang: PT Efhar.

Soepratno, B.A. 2000. *Ornamen Ukir Kayu Tradisional Jawa 2*. Semarang: PT Efhar.

Sobandi, B. 2008. *Model Pembelajaran Kritik dan Apresiasi Seni Rupa.* Solo: Maulana Offset.

Widyastono, H. 2015. *Pengembangan Kurikulum di Era Otonomi Daerah dari Kurikulum 2004, 2006, ke Kurikulum 2013.* Jakarta: Bumi Aksara.

Sani, R.A. 2013. *Inovasi Pembelajaran.* Jakarta: PT Bumi Aksara.

The Linkage between Vocational Schools and Industries Cooperation a comparison in Developed and Developing Countries

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Abstract*:* The Lack of skills valuable in local and global labor markets has been a root cause of high youth unemployment thus being a constraint to economic growth, employment and income. So, many countries embrace vocational education as a solution to this problem. Since the main aims of vocational education are: preparing the graduates with skills, knowledge, competencies as well as the right attitude for the world of work where graduates can work independently or recruited in the existing job vacancies which can lead to improvement in the national income and productivity of the country making it competitive in the global economy. However, many vocational school graduates have not been fully absorbed by the industries or world of work leading to questions of "why is it like that vis-a-vis TVET objectives of employable skills?" Therefore, this paper analyzes this problem in relation to the linkage between the vocational schools' cooperation with industries as a solution to improving competence skills, knowledge and attitude of learners required by the industries through matching TVET programs with the industry needs thus bridging competence and quality standard for high performance exploring comparison case studies in developed and developing countries.

Keywords: vocational school, developed and developing countries, vocational schools' cooperation with industries.

According to Gary Becker (1995) & Joel Spring (2015), Education, Skills and Knowledge have become crucial determinant of a persons' and a nation's productivity in this century. It is now even worthy for one to call it an "Age of Human Capital" in the sense that the primary determinant of a country's standard of living is how well it succeeds in developing and utilizing the skills, knowledge, health and habits of its population. Therefore, it is in the consensus of many researchers that Human Capital development is major determinant of a nation's standard of living however, this human capital development is influenced by the quality of a nation's formal education that is; the better and higher the quality of a nation's education, the higher is its Human Capital development. That is why the International Organization such as ILO, UNESCO, World Bank endorses the quality of Education more so vocational education for economic and social development purposes for instance focusing on the eight Millennium Development Goals (MDGs) adopted at the United Nation's summit in 2000, two of them focus on education (UN 2000, 2005, 2010, & 2015). Many countries in this twenty first century have embraced Vocational Education as an appropriate strategy for human capital development.

Vocational school or *vocational college* is a post- secondary educational institution designed to provide *vocational education or technical skills* required to perform tasks of a particular job or offering instruction and practical introductory experience in skilled trades such as mechanics, plumbing, carpentry, construction, businesses, and information technology. Vocational Education is part of tertiary education and training that provides accredited training in job related and technical skills covering a number of careers and industries.

According to UNESCO Recommendations 2001, TVET as preferred word for VET means a comprehensive term of those aspects of educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. It can also be understood as a means of preparing for occupational fields with effective participation in the world of work, including an aspect of lifelong learning and preparation for responsible citizenship as well as being an instrument for promoting environmentally sound sustainable development (Greening TVET international Framework); and a method of facilitating poverty alleviation. An Industry is a commercial field in nature that use job skills and technology to produce a product with the purpose of obtaining profit. Industry can be manufacturing (for product) or service (for services) such as banking, insurance, transportation, courier services and so on. *Vocational Schools'* cooperation with *Industries* refers to the relationship and partnership between the school learning activities and the activities of the industry as in relation to the competency, and high quality performance. It is the means by which an industry participates in the school activities on a mutual benefit.

A Developed country also referred to as "More Economically Developed Country" (MEDC) is any sovereign state with highly developed economy and advanced technological infrastructure in relation to those less industrialized states. They are states with high per capita incomes based on gross domestic product (GDP), high level of industrialization with advanced technologies, and high human development index (HDI). Also with high level of standard of living, higher life expectancy and high technologies with the service sector dominating the economy, such as Australia, Germany, France, Canada, Italy, Japan, South Korea, Spain, United Kingdom and United States. Developing/ Underdeveloped country (LEDC) is any country/ state with a less developed industrial base, low human development index (HDI), and low per capita income (low GDP) they have not yet achieved a significant level of industrialization in relation to their populations, have low/ medium standard of living and low income. Examples include most of African countries with an exception of Seychelles and South Africa, Indonesia, Malaysia, Vietnam, Thailand, Cuba, Argentina, Chile, Hungary, Moldova, Bulgaria. Although there is no universally agreed upon criterion for categorizing developed or developing countries however, International Organizations like World Bank, UN, IMF use the Economic criterion in grouping countries. The *Economic Criteria* in discussion focuses on the nation's (i) income per capita (GDP), (ii) Industrialization level, and (iii) Human Development Index (HDI) where countries with high gross domestic product, high industrialization level such as tertiary and quaternary sectors of industry and also with high human development index which is a combination of the economic measure, national income and life expectancy coupled with education indices.

The high rate of youth unemployment is a global alarming tragedy which has allured great concerns in many countries both nationally and internationally. This serious challenge is affecting developing countries due to poor quality education system more so the quality of vocational education as a result of mismatch between vocational programs and labor market needs. The purpose of this paper is to discuss the relationship/linkage between *Vocational Schools' cooperation with the Industries as a solution to the above mentioned problem through vocational education in skilling and improving youth's competencies and expertise by observing the changes in labor market needs. This comparison is between Developed and Developing countries* with cases in Europe, America, Asia, Africa and Australia with two countries taken as Case Study, one country representing developed and the second Developing countries. For example in Europe, a case study of developed countries will be represented by Germany and Macedonia as a developing country. In Africa, case studies of Mauritius as developed while Uganda as developing country. Indonesia is developing, and Singapore as

developed country in Asia. More so, US representing developed, and Brazil for developing countries will be the case studies in America.

DISCUSSIONS

Vet In Australia

Since 1990s, Australian VET system has changed from a system largely run by states and territories to a one at national level where all VET policies are determined by the nation's government. For instance the government set up a national competence-based system of qualifications through the Ministerial Council for Vocational and Technical Education (MCVTE) to regulate the vocational qualifications which led to an increase in proportion of working age in the vocational institutions. Industry is actively engaged in VET policy making and development of standards and delivery for instance the national training system is underpinned by commitment to competency-based training based on the standards set by Australian industry. VET competencies and qualifications cover 80% of Australians occupation. Australian VET system is flexible which allows people of all ages to participate for example in 2007, 11.3% of the population between 15 and 64 years participated in VET, VET programs range from a single module or unit of competency to advanced diploma with the training programs ranging from formal classroom to work-based learning which include flexible, self-paced learning, and online training. VET programs also is provided in both private and public registered training organizations (RTOs), in schools, universities or other higher education levels, adult and community education, as well as various cultural, religious institutions. Australia has over 4000RTOs and has a well-developed apprentice system that include traditional apprentice in trades and "traineeships" in other more service oriented occupations.

Vet in Germany

Germany is widely known for its high quality vocational education and training (VET) system. The Dual system of Germany TVET is a vocational education system provided by the vocational schools as well as the company with dual support of both the government and the industry. Vocational schools and the company can coordinate learning avenues which can take the form of learning workshops, company (trade, production and administration) according to the curriculum framework in order to provide an effective combination of theory and practice to reduce on the mismatch of skills hence narrowing unemployment gap among the young people.

The two key features of that system are (a) firm-based training programs accompanied by a school-based component (of one to two days per week), in which apprentices acquire upper secondary general education in core subjects (like math and German) and theoretical knowledge in their training occupation. This duality of practical and theoretical knowledge acquired at the workplace and at vocational schools is (b) accompanied by the private-public duality in the governance structure (i.e. public governance of the vocational schools, provide governance of the firm-based training). The impact of VET systems on school-to-work transitions is made possible by the German dual system as the main entry to labor market. In 2012, 66% of the apprenticeship graduates remained employed by the firm in which they were trained. This rate has even increased by 8 percentage points since 2000. This indicates that the German dual system still works well as a training and screening device for youth labor market entry. The increase reveals that, today more than in the past, firms train for their own labor

supply. The participation in VET programs (including prevocational measures) and the internal hiring of apprenticeship graduates are main reasons why youth unemployment and the so-called NEET (Not in Employment, Education, or Training) rate are low in Germany.

Tvet in Macedonia

The current system of vocational education and training in the country demonstrates both systemic and programmatic shortcomings. A huge number of persons without qualifications, problems in the relevance of syllabi and curricula, VET which is unattractive to youth and adults, poor collaboration between education institutions and the business sector, the need for new profiles and skills for continuation of education and/or successful transition to the labor market and euro-integration processes highlight the need for modernization of the country' VET. As part of the process, Republic of Macedonia initiated important steps in the reform of its education system as it relates to TVET and higher education, particularly as it relates to the upper secondary system within the education sector. Many of these initiatives, however, remain underfunded and unfinished. Profiles and curricula are still too narrow and are considered partly outdated, with too little emphasis on practical work experience. In order for young people to develop necessary practical skills, they need access to adequate workshop equipment and closer links with employers.

The most pronounced problem the country faces is high unemployment. The official unemployment rate, according to the Workforce Survey (ILO definition), amounted in the third trimester of 2012 to 30.6% and is the highest in Europe. In the third trimester of 2012, the activity rate was 56.3%, with an activity gender gap of 22.2% affecting mostly young people although the country has learnt some lessons like: Partnerships with industry and the private sector need to meet labor market demands. Skill needs are identified through effective partnerships and coordination with local industry/sector and industry associations. Local planning authorities are engaged in the development, implementation, and evaluation of new programs.

Tvet in US

TVET in US is called Career and Technical Education (CTE) a name adopted in 1998 by the Association for Career and Technical Education (2011) and it is an elective form of education that students are not required to participate in to earn a high school diploma or a college/ university degree. Historically, TVET has a focus on job preparation for entry-level positions and defined as educational courses and programs offered at less than the baccalaureate level. Ninety-six percent of all high school students in U.S. take at least one TVET course and one in four of all high school students take three or more courses in a single TVET program. Students engage in TVET programs in community and technical colleges while adults engage in the short-term postsecondary occupational training or retraining (Levesque et al., 2008). US TVET takes place in public education system largely limited to high school; community or technical colleges serving a wide range of public needs; various government programs; a miniscule apprenticeship system; and a large business-based training system disconnected from all of the others. *Career Pathways (CPs)* is a strategy applied by TVET providers in US to specify the knowledge and skills that students must acquire at the secondary and postsecondary levels in order to be better prepared for occupations within various career clusters. CPs are adopted by the Office of Vocational and Adult Education (OVAE) and defined as a coherent, articulated sequence of rigorous academic and career courses, commencing in the ninth grade. A Career Pathway is developed, implemented, and maintained in partnership with secondary

and post-secondary education, business, and employers. CPs is available to all students, including adult learners, and are designed to lead to rewarding careers.

Tvet System in Brazil

Brazil's Vocational and technical education and training (VET) is integrated into traditional education at secondary and tertiary levels, and offered as separate program by different public and private educational providers, especially for those who are already outside traditional education trajectories. This complexity led federal government's decision to massively scale it up, to institute *Programa Nacional de Acesso ao Ensino Técnico e Emprego* (PRONATEC, National Program for Access to Technical Education and Employment) in 2011. Coordinated by the *Ministério da Educação* (MEC, Ministry of Education), aiming at dramatically expanding the supply of VET students and providing an umbrella for the country's overlapping VET policies through market research of labor needs and required skills which can trained by TVET providers with the help of employers (OECD 2011), engaging employers and unions in curriculum development, sharing inputs and apprenticeship opportunities to ensure link and match of skills taught and modern workplace needs, developing and implementing qualification frameworks, standardized national assessments frameworks to ensure the quality and consistency of teaching and training. Brazil follows Australia, India, United Kingdom, Canada, and the European Union experience. Workplace learning is one of the best ways used to promote VET learning relating to the labor market needs as well as building and strengthening socio-emotional skills benefiting both the student and the employer as the student will have strong learning environment offering real on-the-job training experience making it easier to acquire hard and soft skills, facilitating a two-way flow of information, making recruitment more effective or less costly for the employer. In addition, employer willingness to offer workplace training is a verification signal that a VET program has labor market value.

Singaporean Tvet System

Technical Education in Singapore started as a single vocational institution in 1964 (Law, 1990: 4). The national system of technical education was adopted to support the growing needs of human resource during industrialization after independence as a means of economic diversity and growth. This was supported in as efficient-driven model concentrating on providing mass education to equip the young with employable skills especially in the early phase of industrialization which lasted in 1972 with technical education delivered through vocational institutes within school system under the Ministry of Education Control. The *"factory school*" is a common idea in Singaporean TVET system and very powerful because it enables Singapore to train its workforce to truly state-of-the-art standards, engaging industry as a close partner in training, enabling students to learn in an environment that is designed for training and it combines the advantages of a first-rate apprenticeship system with those first-rate school-based VET system. This shows a strong link between the VET schools and the business since the factory school model is itself based on and designed to foster close links between the VET system and business. The design of the apprenticeship system also requires teachers in the school-based system to work periodically with in the firm in the same field they teach, requiring students to spend time working in firms, as well as the deep involvement of employers in advising the various VET institutions on programs and setting occupational standards, assessing candidates for diplomas, in providing state-of-the-art equipment for instruction. Industries as potential employers greatly contribute in defining the skills, competence standards and values required however, the nature and levels of industry participation will ensure relevance, quality

of skills and cost effectiveness in school. In this respect, various Industry-based Training (IBT) Schemes (ie Traineeship, Approved Training Centers and Certified On-Job-Training Centers) have been established to facilitate training by industry. Another form of partnerships is the joint establishment of Centers of Excellence in various technologies to facilitate exchange of technology, expertise and training resources.

Tvet In Indonesia

According to Asian Development Bank projects reviews in VET across Asia and Pacific, reveal that industry cooperation with VET providers is the basis of successful training. In Indonesia, vocational schools rely much on industry partners like Chambers of Commerce, local government and local business community in matching with the labor market needs. These partners are included on the school committee board to advise on the course content (curriculum), provide instructor and work placement opportunities like internship vacancies, provision of learning materials like equipment, scholarships and others. Vocational schools in Indonesia have increased their cooperation with industries to an international level including industries like Caterpillar, Cisco, Nivea, Philips and others. These help in work internship for students, certification and job opportunities as well as assessing students' practical skills. Dual System of Education (PSG) [in form of internship] is a common form of education professional expertise, which combines systematic and synchronized between educational programs in schools (SMK) through direct work activities in the workplace to achieve a level of professional expertise. Implementation of a dual system of education in Indonesia, has been running long enough but there are still many problems to be solved like: (1) many vocational schools do not have the cooperation with industry, (2) the time that is not the same organization, (3) a long time practice of different industries, (4) still many students do not earn a place in accordance with industry practice expertise, and (5) lack of monitoring of school counselors to industry. Implementation of the dual system of education, it is necessary to get the attention of all parties, particularly vocational education, with some of the following: (1) the coordination of the industry's practice to fit the students' areas of expertise, (2) the timing of policy on industry practice, and (3) the efforts of the school to continue to work closely with industry continuously, and (4) completion of a task force for monitoring on an ongoing basis and the reward for implementers /teachers (Sutikno, 2013).

Tvet In Mauritius

In Mauritius, education is free from pre-primary up to tertiary level and compulsory up to the age of 16 years. The country has a literacy rate of 89.9% among the population aged 12 years and above.

The Mauritius Institute of Training and Development (MITD) operates a network of 25 Training Centers comprising of 15 vocational training centers and 9 dedicated NTC Foundation/Pre-Vocational centers. The vocational training centers offer technical and vocational courses at National Certificate up to higher national Diploma level in a number of different fields. The courses are provided through different modes including: apprenticeship training, full time training, part time training and targeted training. In 2012 the total number of people trained by MITD was 10,168. Training under Apprenticeship System introduced by the IVTB in the TVET sector yielded relatively high employment rate among TVET graduates. The Dual Apprenticeship System combines on-the-job training with Centre-based learning to develop the necessary skills and knowledge required for a trade which is extended to include Diploma and Degree programs as from 2014.On the other hand, the number of unemployed

youth who have attained tertiary education level has increased significantly from 1,300 in 2006 to 5,000 in 2012. According to a report prepared by the MEF, one of the main causes of youth unemployment is the lack of adequate education, training and employable skills.

Btvet System in Uganda

Although Uganda recognizes the importance of Skills development as a tool for reducing poverty and enhancing productivity, competitiveness, and employability as highlighted in a series of ILO discussions and conclusions limited efforts shows its reality. It is also clear that Employers play an important role in improving effectiveness and relevance of skills training however as revealed in Youth Map Uganda, 2011:19 report by IYF, skills mismatches are witnessed by an interviewed employers who confirmed that there is a huge gap between what students learn in formal education system and what the economy needs. High youth unemployment is closely linked to the lack of skills, which arises from weaknesses in education and training. For example in Mbale town, one hospitality sector employer explained that they need individuals who have a set of skills like plumbing, refrigeration, and electrical/mechanical engineering, but schools are not producing such graduates with practical skills. Also, one telecommunications sector employer explained, "Graduates have no prior technical skills to join our company and they need further training during our staff development programs while on the job.". Skilling Uganda is an ambitious reform program aiming at overhauling the current system of Skills Development in Uganda. It outlines the framework for a modern, state of the art open system for skills development in the country Strengthen employer-based training supporting training activities by employers either in-house or delivered by external training providers since internships provision currently is not sufficient to meet the growing demand. With employers, training authorities will develop a plan to improve the availability of internships including a flexible academic calendar to ensure that internships can be provided year round, support of pilot programs for partnerships development in training (e.g. dual training).

COMPARISON AND CONCLUSION

In this 21st century, both developed and developing nations are faced with the demands of a rapidly changing and more globally competitive world due to major forces driving this change in the world of work, such as advances in information and communication technology (ICT), the introduction of new manufacturing processes, increased economic integration between countries, and increased competition due to trade liberalization. The impact of economic globalization, however, has been uneven for instance in developing countries, China and India, have considerably improved their stand in the global economy, yet others not. Many are seeing expansion of the informal economy, characterized by a reliance on unskilled labor force combined with formal economy stagnation. Recent progress in education development meant that there is more skilled workers in the world than available job prospects increasing the global unemployment, as shocks provoked by the international financial crisis continue to reduce the capacity of the global economy to add new jobs making technical and vocational education and training (TVET) an agenda of governments and donor agencies internationally. The political and policy communities in many low-and middle-income countries (LMICs) are attracted to TVET due to its linkage to unemployment reduction through equipping individuals with relevant skills and knowledge to respond to employment opportunities. UNESCO is an advocate of TVET highlighting its policy importance of higher-order skills and its central role in the global knowledge-based economy, particularly with regard to poverty reduction,

economic growth and social stability (UNESCO, 2010a). There is a shift in priorities evidenced in Global Monitoring Report 2012 on Education for All (EFA), which strengthens the focus on TVET and skills development that might expand opportunities for marginalized groups (UNESCO, 2012). TVET has become a key area focus and investment in developing countries and many initiatives have been implemented to address unemployment issues and improve economic growth.

Considering several research results from various countries shows that there is a better TVET system in developed countries like in Australia, Germany, Singapore, Mauritius and US with more emphasis on industry cooperation with vocational schools in form of dual system, teaching factories, on-job training and apprenticeship and work-based learning right from high school to tertiary institutions and universities. This close linkage has reduced skills mismatch improving quality skills and competency by matching vocational education with labor markets needs hence reducing on the unemployment gap in these countries.

Similarly, there has been a close relationship and linkage between vocational school and the industry also in some developing countries like Indonesia, Brazil though more efforts and appropriate strategies are needed for example periodical curriculum synchronization in all vocational schools with industry needs and increase in duration of dual system. However, there are less evidences of vocational school cooperation with the industry in Uganda that explains why there is high rate of youth unemployment in comparison to similar developing countries like Indonesia, Tanzania, Kenya and others.

Conclusively therefore, cooperation between the vocational school and industry is pivotal and crucial turning point to both the school as it enables the school to produce quality output through updated curriculum and better learning models based on the industry needs, while enabling the industry also to get skilled and competent workforce at reduced costs as well as increasing the productivity that increases the nation's GDP hence leading to economic growth and development and full employment.

Suggestions

Vocational schools can improve their cooperation with industries according to the conclusion through: (1) Implementing the learning model applicable in both places like work based learning, teaching factories. (2) Including Industrial personnel/experts on school committee boards to advice on the learning content through developing appropriate curriculum students' assessment and provision of updated learning equipment.

REFERENCE

Australian Bureau of Statistics, 2004. Moving on: Report of the High Level Review of Training Packages, viewed 4 August 2004, <http//www.anta.gov.au>.

Brooks, L 2004, Australian vocational education statistics: Trends in 'traditional apprentices', NCVER, Adelaide.

Depdiknas. 1997.Keputusan Mendikbud RI Nomor 323/U/1997 tentang Penyelenggaraan PSG pada SMK. Jakarta: Departemen Pendidikan dan Kebudayaan.International Labor Organization, "Uganda Decent Work Program 2007-2010," (May 2007), p. 9.

Dietrich, H., and Hans-Dieter, G. 2008. Betriebliches Ausbildungsverhalten und Geschäftserwartungen. Sozialer Fortschritt 57 (4): 87-93. https://bibliothek.wzb.eu/pdf/2014/i14-502.pdf

Google.com 2016, Basic Understanding of industry. https://translate.google.co.id/translate?hl=en&sl=id&u=http://www.prosesindustri.com/

2015/02/pengertian-dasar-dunia-industri.html&prev=search
http://keydifferences.com/difference-between-developed-countries-and-developing-countries.html

Heike, S, et al 2014. The German vocational education and training system: Its institutional configuration, strengths, and challenges. https://bibliothek.wzb.eu/pdf/2014/i14-502.pdf

IYF, 2011, Youth Map Uganda: A Cross-Sector Situational Analysis on Youth in Uganda report http://www.iyfnet.org/sites/default/files/YouthMap_Uganda_Vol1.pdf

Joel, S. 2015. & G. Becker, S. 1995. Economization of Education: Human Capital, Global Corporations, Skills-Based Schooling.https://books.google.co.id/books?hl=en&lr=&id=ZJmsBwAAQBAJ&oi=fnd&pg=PP1&dq=ilo+human+capital+pdf&ots=d3c_W8zCid&sig=agDw1Zp53wOrgIV3Yx8hPEb7aaM&redir_esc=y#v=onepage&q=ilo%20human%20capital%20pdf&f=false

Josie, M. 2005. Linking vocational education and training with industry in Australia and China, NCVER Adelaide, http://files.eric.ed.gov/fulltext/ED494057.pdf

Kirya, M.M. 2016. Improving the quality and competence of technical vocational education and training output through vocational school cooperation with industry: A case study of Uganda. http://aip.scitation.org/doi/abs/10.1063/1.4965794

Law, S.S. 2011. Case Study on "National Policies Linking TVET with Economic Expansion: Lessons from Singapore"

Law, S.S. 1990. Vocational Training in Singapore, VITB Paper No. 6, Vocational & Industrial Board, Singapore, Levesque et al. 2008 in Matthias Pilz, 2012. The Future of Vocational Education and Training in a Changing World. https://books.google.co.id/books?isbn=3531187570

Hussain, M.N. 2000. Linkages between SMEs and Large Industries for Increased Markets and Trade: An African Perspective www.afdb.org/fileadmin/uploads/afdb/Documents/.../00157640-EN-ERP-53.PDF

Ministry of Education and Science, strategy for vocational education and training in a life long learning context 2013-2020 and action plan. http://www.seecel.hr/UserDocsImages/Documents/VET%20STRATEGY%20AND%20ACTION%20PLAN_EN.pdf

MoES in Skilling Uganda: BTVET Strategic Plan final version p.20 pdfhttp://planipolis.iiep.unesco.org/upload/Uganda/Uganda_BTVET_Strategic_Plan_Final%20Draft_8July2011.pdf

OECD. 2010. "Good Practices in TVET Reform." http://unesdoc.unesco.org/images/0018/001870/187038e.pdf.

OECD. 2013. *Skills Development and Training in SMEs*, *Local Economic and Employment Development (LEED)*. Paris: OECD Publishing. http://dx.doi.org/10.1787/9789264169425-en.

Republic of mauritius. National employment policy for mauritius, 2014. http://labour.govmu.org/English//DOCUMENTS/FOURTH%20DRAFT%20NEP%20-%2015.10.2014.PDF

Sutikno, T.A. 2013. Building Cooperation between Vocational High School and Industry for Suitability of Graduates Competence.

TVET MODELS, STRUCTURES AND POLICY REFORM EVIDENCE FROM THE EUROPE & EURASIA REGION

UN 2015, Millennium Development Goals
http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf

UNESCO 2011, UNESCO TVET definition and strategy

www.uis.**unesco**.org/.../2011.../10_TVET_UNESCO_OREALC_EN.pdf

USA Public Law, 1994. The School-to-Work Opportunities Act of 1994. http://nces.ed.gov/pubs/web/95024-3.asp#ft49

Wong, A. 2000. Education in a Multicultural Setting –The Singapore Experience. Keynote address by Senior Minister of State for Education, Singapore, Web site: http://www.moe.gov.sg/speeches/2000/sp24112000.html

Wikipedia.com 2016, Vocational school, education https://en.wikipedia.org/wiki/Vocational_school

World Economic Outlook. Human Development Report. 2010, and World Development Indicators (October 2010). https://www.imf.org/external/pubs/ft/wp/2011/wp1131.pdf

The Integration of Language, Social Work, and Technology in Tourism Destination Management: Lessons learned From Japan

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Abstract: Japan has a long history on courtesy that is implemented in everyday language and behaviors. This can be seen in public places such as train stations, bus stations, airports and other places of how public employees serve the domestic and foreign visitors. How the Japanese government educates the society is clearly seen in rules and regulations in public places, too. There are many lessons we can learn how the Japanese live their lives in public places. This paper aims at giving several illustrations of how the Japan government is truly present in facilitating their people by integrating language, social education, technology, and tourism destination management. There are lessons we can learn from them to reflect our existing condition.

Keywords: language, social education, technology, tourism destination management

People know that Japan is famous for its strong cultures that, borrowing the words of high tech and high touch from (Naisbitt, 1982) can go hand in hand with the high technology. In the world where we are afraid of something and glorify technology, we obscure the difference between facts and imitations. We accept cruelty as something normal; and we live our lives as remote and inattentive. Concerning high touch, it is material things we are in despair grappling them when we are adjusted in to the technological world: achievement and anxiety, tenderness and mercy, character and immateriality.

Concerning the characteristics of the Japanese language, there are five strong characteristics: "sensitivity to the verticality or power in interpersonal relationships; 2. a group culture orientation that often uses announcements in interpersonal relationships; in human relations; 3. A vagueness that smoothest the rough edges in human interaction called aimsa, 4) A recognition of the importance of face, 5) a grammatical structure that by putting the verb at the end of the sentence emphasizes the concrete over the abstract"(Berglund, 2004 p.7). Those five characteristics can be seen in their culture today.

Japan technology is undoubtedly sophisticated and it is because the technology literacy of Japanese is high so there is no difficulty for them to learn western technology. In addition, consumers and markets are the crucial consideration as the influence of history and the contribution of Y generation who does not want to be far left to take something new (Matsukawa, 2009)

The courtesy, the language, and the technology which are inserted in social education and tourism destination management with the full support of the government result in integrated enjoyable Japan tourism spots with all good facilities that can be easily accessed by any tourists visiting.

ETIQUETTE AND CUSTOMS

Japan has a long history of etiquettes& customs, and has implemented them in their everyday life for ages. Therefore, in public places such as train stations, bus stations, tourist

destinations, restaurants, trains, tourist information centers in shops and whatever public places, the people in charge welcome serve the visitors in a friendly manner. They never get bored to bow their body and explain what the guests need. When everything is clear, they will serve very quickly. From the implementation, Japan has the rules of etiquettes that can be classified into meeting etiquettes, Japanese hierarchy, gift giving etiquettes, dining etiquettes, and table manners! Japan also has business etiquettes and protocols that consist of understanding foreign ways relationships and communication, and business meeting etiquettes. In addition, in integrating language and courtesy Japan have many verbal and nonverbal expressions. As verbal expressions in serving the guests, there are some expressions as in other languages; however, Japanese people rely more on nonverbal languages. The examples are evident in these: silence, eye contact, and gestures. Silence shows the indirectness which has the purpose of understanding other peoples 'words and what the implied meaning of the expression that they say and these should be understood by the partner (business in japanonken.com /classroom)

There are still other etiquettes foreigners have to learn when they want to communicate successfully with the Japanese such as the Japanese and face, harmony and Japanese society, Japanese hierarchy, dining etiquettes, business cards, dress etiquettes, business negotiation (http://www.commisceo-global.com/country-guides/japan-guide) This means that for successful interactions with Japanese, understanding language and Japanese people are not enough when communicating with them.

RULES AND REGULATIONS IN PUBLIC PLACES

Rules and regulations in public places are obvious. Here are some examples that we have to obey when we are on the public places .The rules and regulations are on the train, on the bus, on the taxi and on the restaurant.

On the train

When we are in the train, it is prohibited to smoke a cigarette in such a place. There is a special area for smoking. Also, it is not allowed to talk on your mobile phone on the train or subway, and we have to turn our cell phone on 'manner mode 'or silent mode. Another example is the priorities of seat are for old people, pregnant women or people with small children. As the train is almost full specifically in rush hours, body odor has to have high priority (Mineta, 2013**).**

On the bus

What about on the bus? Just like 'social rules' on the train, there are also so many things that we foreigners have to pay attention to when we are on the bus: 1) turn down the volume when using ear/head phones, 2) not to push the front seat with your legs, 3) turn off your cell phone or switch it to silent mode, 4) keep your voice down when talking to your companion(s).5) not to bring any food that gives off a strong smell., 6) not to throw away any trash, but bring it back with you, 7) cover your mouth when you sneeze or cough, 8) not to throw away any trash, but bring it back with you, 9) not to fight, 10) use the waste bag if you feel sick, 11) ask the passenger behind you when reclining your sea, 12) not to spit on the floor, 13) not interfere with the safe operation of the bus or touch the bus driver in motion 14) not deface the property of the bus or do graffiti,15) not to place any items in the aisle or any places that are considered to be dangerous, 16) not put your hands or any parts of your body

out of the window, 17) stay buckled up while seated, 18) not to walk around after the bus starts moving, 19)keep the valuables with you(Rules, Regulations and Rider Tips https://japanbusonline.com/Etiquette). Although these rules are also found in other cultures, Japanese people are very observant to these social rules and exercise them accordingly in the bus.

On the taxi

As in other countries, the fare of taxi services is more expensive than that of the bus or train services. Taxi is said to be expensive in Japan. Taxi is paid by cash so always carry cash. Bring a map or your destination address because the driver does not speak English. Sometimes we will find taxi drivers wear a surgical mask to protect from disease and bacteria. Japan taxi doors are automatic. So, we do not need to open it or close it as the driver will control it. Also, be safety conscious to identify whether a taxi is vacant or not by looking at the sign above the taxi. If the sign is red, the taxi is vacant. If it is green, the taxi is occupied. The last one is please do not give any tip to a taxi driver (http://miner8.com/en/7274)

In the restaurant

When we are in a restaurant, there are also rules that we have to obey. Japanese restaurants have the unique rules that other countries do not have. If we do not know the rules, we might be ashamed of the mistake we make. Tipping which is common in other countries is not required in Japan. Another rule is *Otoshi*or *tsukidashi* that is a small dish will be served as a sign the first order was taken or giving the guests something to eat while waiting for other menus already ordered to be served later. We need not to pay the water, and we will be given a surprise to taste expensive food with a very reasonable price. Other low price foods we can have are sushi, ramen and tempura. Soft drinks and alcoholic beverage can be purchased until you cannot drink anymore (https://matcha-jp.com/en/1420).

In tourist information centers

In almost every train station and airport there is always a Tourist Information Center with the staffs that will happily and readily serve us. The information that is available is offline and on line so visitors with limited knowledge of technology can access the information easily. There are bunches of booklets, brochures which are very easy to understand. And those who want to access via on line there are many computers that are available to seek the tourism spot. What you can do is just show your passport and the staffs will give you information with the tourist special price. We will be given tourist special cards which we can use for train tickets (private experience in Osaka and Kyoto, October 2016).

Accomodation information

There are 7 types of budget accommodations. They are as follows: 1) pension that provides breakfast and dinner,2) *minshuku* which is the same as pension but in a Japanese style, 3). temple lodging or *shukubo*, based on history in the Edo era when Japanese travelers need to stay they knock the door of a temple, 4) business hotels that focus on traveling at competitive prices, 5) capsule hotels with the low price for single travelers and 6) youth hostels that are for young people in which decoration is Japanese in style, and the last is 7) manga café which is an accommodation in karaoke or manga bu Tit is not advisable (Spacey, 2015).

WHY SO MANY OLD JAPANESE PEOPLE PARTICIPATE IN SOCIAL EDUCATION?

In Japan life expectancy is the first world rank with male 80.3 and female 86.8 total 83.7 (http://www.worldlifeexpectancy.com/japan-life-expectancy). With this condition, there are many people who are still productive in the age of 60 above. Social education and social work are two choices among many activities. "Social work is education is an academic and professional discipline that seeks to facilitate the welfare of communities, individuals, families and groups"(socialwork-Wikipedia,https://en.m wikipedia.org.2016). The reasons are social works: diverse career, the never get bored career, flexible career, it is not a desk job, you get the person who changed someone's life for better. The fields that they can work are in the field of poverty reliefs, life skills, social skills, community development, rural development, urbanization adjustment (https:www.the guardian 2016)

IMPLEMENTATION OF LANGUAGE INTEGRATED WITH MORAL EDUCATION

The implementation of language and moral education is integrated in character education. This is actually almost the same as character education in Indonesia the difference is that Japan has started long time ago and Indonesia has just started. The way how to implement in Japan is simpler but implemented routinely since at the first grade of the elementary school level. What the students are targeted to master curriculum and character building which have been decided by the government. This premise is based on all children have the same potential; the distinction lies on persistence, strictness and the parallel of struggle not from the personal capacity. The first graders are taught how to raise, how to sit, how to arrange the desktop to study. Japanese believes that this is the base for the mindset throughout the child's school life: urgency of tidiness, uniformity, collaboration, introspection, commitment, behavior, and value for public attribute. All those result survival, tough duty, and high ambition in a good way. The students also have liberty, rightfulness, justness, claim, tasks, belonging, strong belief, balance with nature and scientific attitudes to human life which will be beneficial in the struggle of life ((http://members.tripod.com/h_javora/jed6.htm)

Concerning reading and writing, Japanese emphasize the first year of elementary school, children learn to read and write the two 48-character phonetic systems and a few Chinese characters. Each year thereafter, approximately 200 Chinese characters are added. Practice in public speaking or speaking starts at the 1st grade. Formal grammar is taught beginning in the 3rd grade, and by the 6th grade has advanced through auxiliary verbs, preposition, and conjunctions. Thirty percent of the time in language class is devoted to composition. Ethics program supported by NHK broadcasted weekly and it is implemented for almost all elementary schoo (http://members.tripod.com/h_javora/jed6.htm).

THE IMPACTS ON TOURISM DESTINATION MANAGEMENT

Let discuss from the beginning how etiquette, custom, technology, social education and rules in public places influence the quality of tourism destination management. One of the important aspects of tourism destination management is human factors. Japan prepares human resources' attitude since the first grade of Elementary School concerning efforts to achieve something and is implemented at schools and fully supported by parents and a television program broadcasted NHK. One of the results is the Japanese courtesy is timeless and still implemented as high Japanese cultures until now. So do courage and strength to achieve

something. This is in line with the 21st education that prioritizes character qualities which cover curiosity, persistence, adaptability, leadership, social and cultural awarenesshttp:// www3.weforum.org/docs/WEF_New_Vision_for_Education.pdf) which can be concluded as character building. Therefore, it is not quite surprising that Japanese children are quite independent, polite, and aware on environment cleanliness in the classroom. These manners impact on cleanliness in general which is highly needed in the developing of tourist destination.

The long life expectancy of Japanese in the average of 83.7 which is the highest in the world influences Japanese to be active in many kinds of sectors, including tourism. Many of them are still quite active and in the age above 70 by becoming volunteer guides, and what make destinations attractive are attractions, accessibility, human resources, image, character and price, (Hassan, Hamid and Bohairy, 2007) In relation to human resources here is the comment of European tourists guided by Japanese old volunteer guide:

> …….”You could never learn what we learnt that day from any book or you tube or whatever. Ichiro taught us and showed us things that were well off the guidebooks radar we could ask him anything and vice versa. We enjoyed each other’s’ company. The purpose of the organization to assist understands Japanese culture and nurture cross cultural understanding was achieved” (Dave & Dabe, 2013)

This means that meeting someone in a certain occasion means a lot to everybody though they have different background, religion and culture. The European tourist feels that he learns more than a book, YouTube or whatever. If this happens to many people in the world there will be no violence, people will make a friend, create peacefulness, and humanity that can be developed through tourism. As what is stated in the purposes of Indonesia tourism:1) to develop the culture, to develop the nation spirit, to enhance the image of nation, to strengthen the national identity, to tighten the international friendship, to create a sense of humanity and peace (Tourism Constitution no.10,2009)

All of those activities concerning the aspects of tourism destination management are supported by technology that facilitates those who have high, mid and low literacy in technology. For those who have low literacy, the Japan government that is represented by Tourism Information Center provides tourists with abundant information in the form of booklet, brochures and other information which involves expertise who work together so that the information can be understood easily. Some expertise’s are as follows: language for specific purpose, marketing, tourism, history, transport management, graphic design and ICT. When it is carefully observed the integration of information is the result of multi cooperation: government, tourism industry, university, NGO, community organization, businessman. One of the examples is the work of *‘Discover Museum in Shiga’,* which is the result of the cooperation of The Kambiwako University Regional Consortium Shiga Association of Museums the Shiga Guidebook Editing Committee (Shinohara and Niren, 2014).

CONCLUSION

Japanese starts the education based on moral and character building. The achievement of success of highly depends on the effort. Moral education has been started since the first grade of Elementary School. Therefore, Japanese are accustomed to the rules and regulations, courtesy at home, at school and in public places that are applied orally in written forms. This activity influences a lot in the way how to behave with other people including foreign tourists. These are supported by technology and information in tourism destination resulted from various network which facilitate both domestic and the foreign visitors, and foreign tourists are given

special price in terms that they are given lower price than Japanese**.** This is the way how Japan government welcomes and respects the guests.

Japan government is truly present in educating the people at school and in the family which has the impact on the community. These can be seen in the integration of language, technology, social work. This integration results well in well-managed tourism destinations.

REFERENCES

Berglund, J. 2004. *Japan its People, its language, and its culture*, Retrieved from http://www.lib.tezuka-gu.ac.jp/kiyo/p.7

Business in Japan (n.d). Retrieved from http://www.onken.com/classroom/ inter-nationalmanagement/Japan/Nonverbalcommunication.html

Dave and Dab. 2013. *Discovering tokyo with volunteer guides. Retreived from the planetd.com/discovering Tokyo-with a volunteer tour guide*

Japan bus online (n.d) Retrieved from https://japanbusonline.com/Etiquette

Hassan,S, Hamid, M, and Bohary, H. 2007. *Perception of destination branding measures: A case study of Alexandria Destination Marketing Organizations*. Retrieved from http://www.emuni.si/press/ISSN/1855-3362/3_269-288.pdf

Lower –Secondary (Grade1-6) Retrieved from (http://members.tripod.com/h_javora/jed6.htm)

Rules in taxi (n.d). Retrieved from http://miner8.com/en/7274

Japan guide (n.d) Retrieved from http://www.commisceo-global.com/country-guides/japan-guide

Matsukawa, S. 2009. *Japanese consumers as technology innovators*. Retrieved from https://digital.library.txstate.edu/bitstream/handle/1087

WHO. 2014. *World health rankings* Retrieved17 January from http://www.worldlifeexpectancy.com/country-health-profile/japan

Mineta, G. B. 2013. *Train etiquette in Japan: Do's and Don'ts of Riding a Train or Subway*. Retrieved from http://howibecametexan.com/2013/03/21/5-rules-of-train-etiquette-

Naisbit, J.1982. *Megatrends : Hightech and Hightouch*. Retrieved January from https://bookpage.com/reviews/779-john-naisbitt-high-tech-high-touch#

New Vision for Education. 2015. Retrieved from, (http://www3.weforum.org/ docs/WEF_New_Vision_for_Education.pdf)14

Nine reasons to become social workers. 2016. Retrieved from https:www. the guardian.

Private experience in Osaka and Kyoto, October. 2016. Spacey ,J. 2015. The 7 Types budget accommodations in Japan, Retrieved from http://www.japan-talk.com/jt/new/7-types-of-budget-accommodations-in-Japan

Socialwork-Wikipedia. 2016. Retrieved from https://en.m wikipedia.org

Shinohara, T., and Niren, T. 2014. *Discover the Museums in Shiga*. Shiga : The Shiga History Tourism Constitution no.10, 2009

Uematsu, H. 2015. *Rules in the restaurant*. Retrieved from (https://matcha-jp.com/en/1420)

WHO. 2014. *World health rankings* Retrieved from http://www.worldlifeexpectancy.com/country-health-profile/japan

Effect of Method Method Versus Jigsaw Teams- Student Achievement Divisions (STAD) and Style Cognitive Learning Outcomes Of Discourse Reading Comprehension Grade SMPN 10 Kota Kupang.

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Abstract: The research problem, namely (1) whether there are differences in learning outcomes reading comprehension of discourse between groups of students that learned through the methods of Jigsaw with STAD method?, (2) whether there are differences in learning outcomes reading comprehension among a group of students who have the cognitive style *field dependent* group students who have the cognitive style *field independent?* And (3) whether there is an interaction between method Jigsaw and STAD method with cognitive styles?. This study aims to (1) examine the differences in learning outcomes reading comprehension of discourse between groups of students that learned through the methods of Jigsaw with a group of students that learned through the STAD method, (2) examine the differences in learning outcomes reading comprehension of discourse between the student group that styled cognitive *field dependent* group student *field independent* cognitive *style,* and (3) testing the interaction between method Jigsaw and STAD method against cognitive style. This research method is a method using a quasi-experimental design 2 x 2. Number of samples in the experimental class 73 students consisting of 21 students who have the cognitive style of *field independence* and 53 students who have the cognitive style of *field dependent.* The results showed that (1) There is an effect method STAD Jigsaw versus the learning outcomes of reading comprehension of discourse. (2) Results of learning reading comprehension discourse of groups of students who have the cognitive style *field dependent* lower than the result of learning reading comprehension discourse of groups of students who have the cognitive style *field independent,* and (3) there is no interaction between method Jigsaw versus STAD method with cognitive style the learning outcomes of reading comprehension of discourse. Based on these results, the researchers suggest (1) methods jigsaw and STAD by utilizing the cognitive styles of students in learning can improve learning outcomes language skills at the junior high school students, (2) In order to maintain the consistency of the results of student learning, teachers need to prepare a lesson plan to implement measures of the second-step learning method, (3) Teacher gives confidence to students that the students get good learning outcomes if together in mutual support groups, (4), further research is recommended to compare the effect of Jigsaw versus STAD method involving cognitive styles and achievement motivation on learning outcomes.

Keywords: jigsaw method, student teams achievement divisions, and cognitive style

This article is a summary of the results of studies that tested the three variables, namely the independent variable methods jigsaw and STAD method, a moderator variable cognitive style, and the dependent variable learning outcomes reading comprehension of discourse. Method is a way of working that applying to facilitate the implementation of an activity in order to achieve predetermined objectives (KBBI, 2005). The learning method is a way of working that applying that facilitates teachers and students to achieve the learning objectives. The learning method gives a role to the teachers to build learning environments that facilitate active role

constructivism students understand the material by controlling and directing the activities of learning. Involvement of students actively in learning teachers should do things (1) provides a variety of examples and representations of the subject matter on the part of learners, (2) encourage the high level of interaction in teaching, and (3) linking the subject matter to the real world (Enggen & Kauchak (2007). the same opinion was delivered Ormrod (2000) build a learning constructivist, teachers do (1) environmental-learning environment that is challenging and complicated tasks are authentic, (2) the negotiation of social and shared responsibility as part of learning, (3) representations of multiple subjects, (4) the understanding that knowledge can be built, and (4) student-centered teaching.

According Degeng (2013: 11) learning always see the relationship between the variables of mutual support, namely the conditions of learning, teaching methods and learning outcomes. Learning conditions act as a factor influencing the effect of the method in improving learning outcomes. Learning conditions interact with leaning method as different ways to achieve different learning outcomes under different learning conditions.

According to Eggen and Kauchak (2012) that the Jigsaw method designed to teach systematic knowledge building *(organized bodies of knowledge)* and the specialization of tasks *(task specialization).* Jigsaw method has a plan of activities that need to be teachers, first determine the learning objectives, both prepared a study guide, the three formed a team of students, and four support the presentation of the experts. Jigsaw has two main characteristics: first jigsaw designed to teach systematic knowledge building *(organized bodies of knowledge).* Second, jigsaw includes one element specialist task *(task specialization).* Plan a learning activity with jigsaw method includes five steps: (1) determine the learning objectives, (2) to prepare a study guide, (3) establish a team of students, (4) support the presentation of "experts", and (5) applying the lessons using a jigsaw ,

Slavin (1986) describes STAD cooperative learning is a strategy that gives the team a compound capable of practice to learn the concepts and skills, together with the students. STAD method has the steps of learning, namely (1) students follow a pre-test, (2) the student is ranked from top to bottom, (3) students are divided into groups, (4) the teacher presents the material, (5) the students receive a worksheet, (6) the teacher checking groups for the advancement of learning, (7) teachers manage individual quizzes, and (8) the teacher gave a score groups based on scores obtained individually (Jacobsen, dkk.2009).

According Witkin (1976) cognitive style is generally used by humans to understand the environment there are two, namely cognitive style *field dependent* and *field independent* cognitive style. Cognitive style *field dependent* is a cognitive style that is owned by individuals who exhibit the characteristics (1) tends to think globally, (2) tend to accept the existing structure, (3) has oriented social, (4) to choose a profession that emphasizes social skills, (5) follows the existing objectives, and (6) learning with external motivation. Cognitive style *field independent* cognitive style is an individual who shows characteristics (1) has ability analysis, (2) have the ability to organize, (3) to choose a profession that is individualized, and (5) give priority to internal motivation. Kogan (1980) (in Langgar, 2015) cognitive styles as individual variation in how to perceive, remember, and think to understand, storing, transforming, and using information. A similar opinion was expressed that Keefe (1987) cognitive style is part of the learning styles habit of behaving relatively fixed in a person in receiving, processing, and deduce information. Waber (1990) states the term cognitive style refers to the style of a person, and describe the ways a person to understand, think, remember, reason, and solve problems. Wikipedia (2008) indicated that cognitive style is a term used in psychology to describe the way people think, accept, and remember information, or prefer the approach they use to solve problems. Ausburn & Ausburn (1978) (in Kozhevnikov, 2012) describes the cognitive style refers to dimensions that represent individual psychological consistency of cognitive function,

particularly with regard to how to acquire and process information. Messick (1976) defines cognitive style as a stable attitude, preference, or located which determines how people absorb, remember, think, and solve problems.

According Witkin (1978: 8) that the cognitive styles are generally used by humans to understand the environment there are two, namely the *field independent* and *field dependent.*

a. Cognitive style *field independent* is a cognitive style that is owned by individuals who demonstrate characteristics (1) have the analytical skills to separate the objects and the environment, (2) have the ability to organize objects, (3) has oriented impersonal, (4) select professions individual, and (5) give priority to internal motivation and internal reinforcement.
b. Cognitive style *field dependent* is a cognitive style that is owned by individuals who exhibit the characteristics (1) tends to think globally, (2) tend to accept the existing structure, (3) has oriented social, (4) tends to choose a profession that emphasizes social skills, (5) tends to follow the existing objectives, and (6) tend to learn by external motivation and more interested in the external reinforcement (Ramirez and Castenada, 2005: 3).

Learning outcomes are all effects that can be used as an indicator of the value of learning method under different learning conditions. Learning outcomes can be tangible results *(actual outcomes)* and the desired result *(desired outcomes).* Tangible results are the tangible results achieved from the use of a method under certain conditions. Learning outcomes are the abilities of the students after receiving their learning experience (Sudjana, 2008). Student learning outcomes that satisfy tend to show the results of which are characterized by (1) the satisfaction and pride that can developed learning motivation intrinsic to the students, (2) increase the confidence in the ability of self, (3) learning outcomes are achieved meaningful to him as would be durable remembered , forming behavior, useful for studying other aspects, can be used as a tool to obtain information and other knowledge, willingness and ability to learn by themselves, and develop their creativity, (4) the results of learning by the students as a whole, and (5) the ability of students to control or assess and control himself, especially in assessing the results achieved as well as assessing and controlling of business processes and learning.

PROBLEM

This study was conducted to answer the questions as follows.

1. Is there a difference in reading comprehension learning outcomes for the group of students that learned using jigsaw with a group of students that learned with STAD method?
2. Is there a difference in reading comprehension learning outcomes between groups of students who have cognitive styles with the group F D F I cognitive style?
3. Is there an interaction between the use of methods J igsaw and methods STAD and cognitive style on learning outcomes reading comprehension of discourse?

OBJECTIVE

1. This study aims to examine differences in reading comprehension learning outcomes between groups of students who learn to use methods J Igsaw with a group of students who learn by using STAD.
2. This study aims to examine differences in reading comprehension learning outcomes between groups of students who have cognitive styles F D with a group of students who have cognitive styles F I.

3. This study aims to test the interaction between the use of methods J igsaw and methods STAD and cognitive style on learning outcomes reading comprehension of discourse.

RESEARCH METHODS

This research method is to experiment with quasi-experimental research design that uses *control - group pretest - posttest non-random.* This design was chosen because the research conducted is not possible to change the existing class. Pre-test was conducted to determine the state of learning outcomes before treatment and post tests were conducted to measure the learning outcomes after treatment.

Research design

variable Moderator	Teaching methods (X)	
	Jigsaw (X1)	STAD (X2)
Cognitive Style *Field Independent* (1)	Y1.1 Y1.1, 2 ... .Y2, 1. N	Y1.2.1 Y1.2,2 ... Y1, 2 n
Field Dependent Cognitive Style (2)	Y2,1,1 Y2,1,2 ... Y2, 1.N	Y2,2,1 Y2, 2, 2 ... Y2, 2n

The study involved two independent variables, namely the method of Jigsaw (X1) and the method of STAD (X2) and one moderator variables are cognitive styles (Z) with two dimensions, namely the *Field Dependent* (Z1) and *Field Independent* (Z2) and the dependent variable is the result learn reading comprehension of discourse (Y). The design is the design of 2 × 2. The research was done in class VIII SMPN 10 Kupang with one experimental class and the control class. The number of students in the experimental class there are 21 students who styled FI and FD and 53 students in the control class No 6 FI cognitive style of students and 16 students whose cognitive style FD.

DISCUSSION

Effect of Learning Method Jigsaw Against STAD vs. Learning Outcomes Discourse Reading Comprehension

Results of research and hypothesis testing was known no significant difference in reading comprehension discourse of learning outcomes between groups of students that learned with Jigsaw method versus the method STAD. These findings are based on the calculation results of data pre-test and posttest the experimental class were treated with both methods were compared with the results of pre-test grade control. The results of pre-test control grade students scored an average of 9.74 with a standard deviation of 1.51 and pretest experimental class students scored an average of 9.75 with a standard deviation of 2.02. Results value - average pre-test control class is 9.74 with a standard deviation of 1.51, and the average value of the experimental class of 9.75 with a standard deviation of 2.04 shows that learning outcomes did not differ significantly.

The results of pre-test grade control and pre-class experimental test reading comprehension of discourse tested by ANOVA showed F value of 1.72 with a significance value of 0.193. F value of 1.72 with a significance value of 0.193 indicates that the value is not proven to have average values were significantly different.

The results of the posttest control class *field dependent* cognitive style shows the average value of 5.187 with a standard deviation of 2.007 and post test results of the control class *field*

independent cognitive style shows the average value of 9.666 with a standard deviation of 1.211. The results of the posttest experimental class *field dependent* cognitive style shows the average value of 4.380 with a standard deviation of 2.791 and post test results of experimental class *field independent* cognitive style shows the average value of 12,095 with a standard deviation of 2.681.

The argument that reinforces that method Jigsaw have a positive influence on learning outcomes reading comprehension of discourse is shown by the results of the analysis of learning outcomes discourse student group that styled cognitive *field dependent* shows the average value of 5.055 with a standard deviation of 2.338 and the learning outcomes of the student group that stylish cognitive *independent field* shows the average value of 12,000 with a standard deviation of 3.346. The results of experimental study cumulative grade students that learned with Jigsaw method shows the total average value of 6.791 with a standard deviation of 3.988.

Learning outcomes with STAD method for a class of students experimental *field dependent* cognitive style shows the average value of 4.339 with a standard deviation of 2.638 and a group of students whose cognitive style *independent field* shows the average value of 12.181 with a standard deviation of 2.575. The results of experimental study cumulative grade students that learned with STAD method shows the total average value of 6.640 with a standard deviation of 4,437.

The results of the analysis of learning outcomes of students' reading comprehension class discourse that learned experiment with methods of Jigsaw and STAD method shows the total average value of 6.676 with a standard deviation of 4.413 can be interpreted that learning with both these methods provide a significant impact on learning outcomes. Results of learning methods Jigsaw and STAD methods provide a positive influence for the implementation of this method of learning by student's experimental group was given a role to take advantage of prior knowledge to construct new knowledge by leveraging the capabilities of the group.

The influence of the use of methods Jigsaw on learning outcomes reading comprehension discourse of class VIII SMPN 10 Kota Kupang *field dependent* cognitive style shows the average value of 12.23 while the value of the effect of the jigsaw method on learning outcomes discourse reading comprehension of students who have the cognitive style *field independent* shows the average value of 12.51. Jigsaw method results influence on learning outcomes reading comprehension of discourse to a group of students whose cognitive style *field dependent* than the value of its influence on the learning outcomes of students' reading comprehension discourse stylish group cognitive *independent field* there is a difference of 0.28. The difference in learning outcomes of students' reading comprehension discourse of group cognitive style *field independent* of 0.28 against the student group that *field dependent* cognitive style could be interpreted that the influence Jigsaw method to groups of students and *field independent* cognitive style higher than in the group of students whose *field dependent* cognitive style ,

STAD method influence on learning outcomes of students who read the discourse *field dependent* cognitive style shows the average value of 10.28 while impacting to STAD method on learning outcomes of students' reading comprehension *field independent* cognitive style shows the average value of 10.67. The difference in value 0.39 learning outcomes of students' reading comprehension discourse *field independent* cognitive style to the learning outcomes of students' reading comprehension discourse *field dependent* cognitive style can be interpreted that the learning outcomes of students' reading comprehension discourse *field independent* cognitive style is higher than on learning outcomes for reading comprehension discourse *field dependent* cognitive style. The result of a difference of 0.39 between groups of students and *field independent* cognitive style with groups of students and *field dependent* cognitive style

may indicate that the method STAD greater influence on the student group that *field independent* cognitive style.

Jigsaw influence teaching methods and learning methods STAD on learning outcomes reading comprehension discourse of class VIII SMP with the value f of 10.34 and a significant value of 0.002 confirmed that there is significant influence because of significant value of 0.002 <0.005.

Differences in Reading Comprehension Learning Results discourse between the Student Groups *Field Dependent* Cognitive Style with a group of students who Stylish Cognitive *independent Field*

Results of learning reading comprehension discourse of the student group that styled cognitive *field dependent* that learned with the method Jigsaw shows an average value of 5.055 with a standard deviation of 2.338 while the yield learn reading comprehension discourse of the student group that styled cognitive *field independent* shows an average value of 12,000 with a standard deviation of 3.346. The difference amounted to 6.945 learning outcomes between groups of students and *field independent* cognitive style learning outcomes of students' group *field dependent* cognitive style shows the differences in learning outcomes.

Results of learning reading comprehension of discourse between the student group that styled cognitive *field independent* and student groups are stylish cognitive *field dependent* that learned with STAD method showed that the group of students who styled cognitive *field independent* shows an average value of 12.181 with a standard deviation of 2.575, while group student *field dependent* cognitive style shows the average value of 4.339 with a standard deviation of 2.638. Of learning outcomes between groups of students and *field independent* cognitive style with groups of students and *field dependent* cognitive style shows the difference of 7.742, we conclude that there are differences in learning outcomes according to students' cognitive styles

Total result of learning reading comprehension of discourse that learned by both methods in a class experiment showed that the group of students who styled cognitive *field independent* shows an average value of 12.142 with a standard deviation of 2.690, while the group of students who styled cognitive *field dependent* shows the average value of 4.521 so that the total difference in average value between groups of students and *field independent* cognitive style with groups of students and *field dependent* cognitive style gained an average value of 6.676 with a standard deviation of 4.313.

With the difference in the average value of 6.676 with a standard deviation of 4.313 shown by groups of students and *field independent* cognitive style, we conclude there are significant differences between the results of learning reading comprehension of discourse among groups of students based on cognitive style.

Interaction Learning Method (Jigsaw and STAD) with Cognitive Style *(Field Independent* and *Dependent Field)* On Discourse Reading Comprehension Study Results

Statistical analysis of the interaction between the learning method with cognitive styles show f value of 0.323 with a significance value of 0.571. A significance value of 0.571 is greater than 0,005, it can be concluded that there is no interaction between the learning methods with a cognitive style that is owned by the students. Interaction significant value 0.571> 0.005 does not mean that a teacher in the learning process does not need to get the data of cognitive styles of students that learned.

The results of data analysis showed that there were significant differences between the learning outcomes of students' reading comprehension discourse stylish group cognitive *independent field* with groups of students and *field dependent* cognitive style. The findings indicated by the calculation results of the study group of students *field dependent* cognitive style that learned with the method Jigsaw gets F value of 1.176 with a significance value of 0.002, while groups of students and *field independent* cognitive style with F value of 1.348 with a significance value of 0.001. Student groups are *dependent field* cognitive style that learned with STAD method with F value of 1.826 with a significance value of 0.003 and a group of students whose cognitive style *independent field* with F value of 1.947 with a significance value of 0.000. Conceptually that cognitive style *field dependent* and cognitive style *field independent* effect on student learning outcomes, so it can happen students who have cognitive style *field dependent* higher learning results when compared to the learning outcomes of students who have the cognitive style *field independent* or otherwise of students who have style *independent field* of cognitive learning outcomes in higher than student learning outcomes that have a *field dependent* cognitive *style.*

CONCLUSIONS AND SUGGESTIONS

Conclusion

The conclusions in this study (1) There are differences in learning outcomes reading comprehension of discourse between groups of students that learned through the methods of Jigsaw with a group of students that learned through the STAD method, (2) There are differences in learning outcomes reading comprehension of discourse between groups of students who have the cognitive style *field dependent* with a group of students who have the cognitive style of *field independence,* and (3) there is no interaction between the method of Jigsaw and STAD method with cognitive style on learning outcomes for reading comprehension of discourse.

Suggestions

a. Use of jigsaw method by utilizing the cognitive styles of the students were examined in this study provide a significant impact on learning outcomes of reading comprehension discourse of junior high school students should be considered by teachers Lessons Indonesian language and literature or other subjects as one of the alternative methods that can be used in learning in junior high school.
b. The use of STAD method by utilizing the cognitive styles of the students in this study provide a significant impact on learning outcomes of reading comprehension discourse of junior high school students should consider language and literature teacher Indonesia or teachers of other subjects as one of the methods used in teaching in junior high / high school / SMK.
c. Before using both methods by utilizing the cognitive styles of students, teachers need to be trained how to carry out cognitive tests and grouping of students in the group
d.

REFERENCES

Anderson, J.R. 1995. *Learning and Memory: An Integrated Approach.* New York: John Wiley & Sons.

Anderson, J.R. 2005. *Cognitive Psychology and its Implications* (6 th ed). New York: Worth

Anderson, J.R. 1995. *Learning and Memory.* New York: John Wiley & Sons

Ashcraft, M.H. 2006. *Cognation* (3 rd ed.) Upper Suddle River. NJ: Prencite-Hall

Ates, S & Cataloglu, E. 2007. *The Effect of Students Cognitive Styles on Conceptual Understanding and Problem-solving skills in IntroductoryMechanics.* (online) http: www.tandf.co.uk/journals/default.html.diakses June 2015

Anwar, S. 2010. *The reliability and validity.* Yogyakarta: Student Library.

Aronson, E; Blavey, N; Sikes, J; Stephans, C & Snapp, M. 1975. "Busing and the Racial Tension: The Jigsaw Route to Learning and Liking." Psykology Today. 8: 43-59.

Bandura, A. & Walters, RH 1973. *Social Learning Theory and Personality Development.* New York: Holt Rinehat and Winston.

Cornelius, W.J. 2007. *Learner- Relation Student-Centered Teacher- Ships are Effective: A Meta-Analysis.* Review of Education Research, 77 (1), 113-173.

Deutsch, M. 1949a. "A Theory of Cooperation and Competition." Human Relations.2: 129-152

Degeng, I.N.S. 1989. *Variable Taxonomy Science Teaching.* Jakarta: Department of Education, Director General of Higher Education. P2LPTK

Degeng, I.N.S. 1993. *Applied Cognitive Technology in Teaching.* Jakarta: Department of Education, Director General of Higher Education. P2LPTK

Degeng, I.N.S. 2013. *Learning Sciences Classification Variables for Development Theory and Research.* Bandung: Publisher Kalam Hidup.

Department of Education and Culture. 2005. *Indonesian dictionary.* Jakarta: Balai Pustaka.

Eggen, P.D. & Kauchack, DP 1993. *Learning and Teaching.* 2 nd ed. Needham Height, Massachusetts: Allyn and Bacon.

Gredler, M.E.B. 1986. *Learning and intruction Theory Into Practice* Translated by Munandir , Jakarta: CV. Rajawali.

Globerson, T. 1990. *What`s is the Relationship between Cognitive Style and Cognitive Development?* In Globerson and Zelniker T. (Ed). Cognitive Style and Cognitive Development. Nerwood. NJ. Abtex Publishing Corporation.

Jacobsen, D.A., Eggen, P., Kauchak. 2009. *Methods for Teaching: Promoting Student Learning K-12 Classrooms* .Pearson Education, Inc., Publishing as Allyn & Bacon, New Jersey, USA.

Johnson, D.W. & Johnson, R.T. 1998. *Cooperative in the Classroom.* USA: Interaction Book Company.

Johnson, D.W & Johnson, R.T. 1999. *Learning Together and Alone: Cooperative, Competitive, and individualistic Learning* (ed -5). Boston: Allyn & Bacon.

Kagan, S. 1990. *Cooperative Learning Resources for Teachers.* San Juan Capistrano, CA: Recources for Teachers.

Keefe, J.W. 1987. *Learning Style: Theory and Practice.* Reston Virginia: National Association of Secondary School Principals.

Kogan, N. 1980. *Cognitive Style and Performance.* Bulletin of Orton Society, 39.63-70

Kozhevnikov, M. 2007. *Cognitive Styles in the Context of Modern Psychology: toword and Integrated Framework of Cognitive Style.* In Psychological Bulletin, 2007, Vol. 133, 3, 464-481.

Violated, Dorcas. 2015. *Effect of Content Organizing Strategies Learning and Cognitive Styles Of Learning Outcomes Concept Training Course On* .Malang *Citizenship Education:* Graduate.

Messik, S. 1976. *Individuality in Learning.* San Francisco: Joosey-Bass

Mohamad, S. 2009. *The Early Adult Learning Styles of Students From Different Cultural Bacgrounds In Malaysia Distance Education.*

McCombs, B. & Miller, L. 2007. *Learner-Centered Classroom Practices and Assessment.* Thousand Oaks, CA: Corwin.

Riding, R. 2002. *School Learning and Cognitive Style.* London: David Fulton Publishers.

Reed, K. Stephen. 2007. *Cognition Theory and Applications.* Tr. Aliya Tusyani , Jakarta: Publisher Salemba Humanika.

Sharan, S. 1980. *Cooperative Learning in Small Groups:* Recent Methods and Effects on Achievement, Attitudes, and Etnic Relations. Review of Educational Research, 50 (2) 241- 271.

Sharan, S. & Hertz-Lazarowitz, R. 1980b. *A Group Invertigatioan Method of Cooperative Learning in the Classroom.* In S.Sharan, P. Hare

Smtith, E. Edward and Stephen M.K. 2007. *Cognitive Psychology Mind and Brain.* Yogyakarta: Student Library.

Slavin, R.E. 2005. *Cooperative Learning Theory, Research and Practice.* Tr. Marianto Samosir. Bandung: Publisher Nusa Media.

Waber, D. 1990. *The Biological Boundaries of Cognitive Style: A Neuropsychology Analysis.* In Globerson T. and T. Zelniker (Eds) Cognitive Style and Cognitive Development. Nerwood. NJ. Abtex Puplishing Corporation.

Wijaya, T. 2010. *Multivariate Analysis. Data Imaging Techniques for Theses, Dissertations Using SPSS.* Yogyakarta: Atma Jaya University.

Witkin, H.A, Oltman, P.K, Raskin, E, & Karp, S.A 1971. *A manual for the Embedded Figures Test.* Palo Alto, CA: Consulting Psycologist Press.

Witkin, H.A. 1976. *Cognitive Style in Academic Performance in Teacher and Student Relations.* In Messick, (ED). Individually in Learning. San Francisco: Jossey Bass

The Effect of Contextual Learning Strategy on the Basis of Language Exposure Ecology and Learning Motivation on the Matery of English Vocabulary

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Abstract: Students' English achievement in schools in general is still low. There are many factors affecting this. One of the factors lays on the strategies that English teachers use in class. Most teachers still apply conventional strategies, including direct learning strategy which is teacher-centered and product-oriented. English language exposure which is very important in foreign language learning is limited. Then, it is necessary to find a strategy which is potential to provide more English language exposure and motivation for students. This study aimed to examine: (1) the difference in the mastery of English vocabulary between students taught with contextual learning strategy on the basis of language exposure ecology and those taught with direct learning strategy; (2) the difference in the mastery of vocabulary between students having high motivation and those having low motivation; (3) interaction effect of the learning strategies and motivation to students' mastery of English vocabulary. This study used a quasi-experimental research design. In particular, it employed factorial 2x2 version non-equivalent control group. The subjects were the seventh grade students of SMP Negeri 11 Kupang, Indonesia. Of eight classes, two classes were randomly chosen, one as experimental group and the other as control group. Contextual learning strategy on the basis of language exposure ecology was applied in experimental class whereas direct learning strategy was used in control class. Data taken from both classes were then descriptively and statistically analyzed (ANOVA) using SPSS version 16.0 for windows. Results showed that (1) there was a significant difference in the mastery of English vocabulary between students in experimental group and control group. Contextual learning strategy on the basis of language exposure ecology was more effective; (2) there was a significant difference in the mastery of vocabulary between students in high motivation group and those low motivation group. High motivation students were more successful; (3) there was no interaction effect of learning strategies and motivation to students' mastery of English vocabulary. Based on these results, teachers of English in general and those teaching at SMP level in particular are recommended to use learning strategies that provide more language exposure and motivation for students.

Keywords: contextual learning strategies, language exposure ecology, motivation to learn, vocabulary

The quality of education in Indonesia is considered low. There are many factors affecting this. One of the main causes lies in the way teachers organize the learning process. Most teachers only apply conventional learning strategies, including direct learning strategies. In general English learning strategies in schools tend to have the following characteristics: (1) the learning tends to be product-oriented so that it becomes less attractive; (2) the interaction in class is teacher-centered, which makes the students not active, not creative, and even tend to be lazy to learn; (3) the teachers in the learning process do not give enough time for students to express and demonstrate their ability and achievement; (4) lack of variety in learning strategies which

results in lack of motivation for students to learn; (5) English language exposure to students is limited.

More specifically, Kolo (2013) says there are two classic problems often found, namely (1) the lack of English language exposure after school time, and (2) the distortion on the interaction among related components, e.g., the inadequate competence and dedication of English teachers. Furthermore, he says, students are practically no longer in touch or make contact with English language both directly and indirectly after English lesson. English teachers use English only when teaching or when preparing lessons. Thus, language acquisition only occurs during learning process in class. In fact, various studies show that learning English in classes which only takes a few hours a week can only enable students to master between 30% -50% of the target set out in the learning curriculum (Barrows and Tamblyn, 1980). Therefore, it is necessary to find learning strategies which provide more English language exposure to the students. One of the strategies is contextual learning strategy on the basis of language exposure ecology.

According to Blanchard, Bern and Erickson in Komalasari (2013: 6), contextual learning is a learning strategy that links the learning material learned to the real life context that the students deal with in family, society, surroundings, and work field on daily basis. In that way they are able to link their knowledge to the events in the real life. There are seven main components of contextual learning namely: constructivism, questioning, inquiry, learning community, modeling, reflection, and authentic assessment.

Constructivism is the basic philosophy of contextual learning (Glasersfeld, 1989, Bandura, 1971) which states that knowledge cannot be transferred from the teacher to the students like filling empty bottles. It is because the students' brains are not “empty” but already filled up with their prior knowledge. Students do not just "accept" knowledge, but "construct" their own knowledge through the process of intra-individual (assimilation and accommodation) and the inter-individual (social interaction). Contextual learning is not actually an entirely new approach. The basis of contextual learning has been developed by John Dewey since 1916.

Contextual learning strategy on the basis of language exposure ecology is a learning process that takes place in exposed arenas which is carried out structurally and sustainably in one cycle activity by the students. An active, extended, and continuous contact with English is believed to help students improve their language skills both in receptive skills (listening and reading) and productive skills (speaking and writing). This learning strategy has three components namely teachers, exposure field/arena, and learning process, and that all three are in one ecology. The power of language exposure in these three components determines the level of English language acquisition. Students learn in free, contextual and constructive atmosphere so that they are more creative, innovative and daring to express and demonstrate the ability acquired.

On the contrary, in direct learning, the teacher transfers information or skills directly to students to achieve the goals previously stated. Students’ active participation and their learning environment receive less attention. Language exposure is very limited. There is no display board in classrooms where students can display their work, there is no 'English Corner' where students can read stories/ comics, play games, or search for difficult words in the dictionary.

Learning motivation is also one of the factors that affect students’ learning outcomes. Heckausen (in Djaali, 2000) suggests that learning motivation is an impulse from the students that they try or struggle to improve their ability in every way they can. While Atkinson (in Djaali, 2000) says that a person who has high expectations of learning motivation for success always overcomes the fear of failure. He is always optimistic that in every moment he is always motivated to succeed. Learning motivation is the inner psychic force to trigger learning activities of the students.

This research was conducted in SMP Negeri 11 Kupang, with the aims to examine: 1) the difference in the mastery of English vocabulary between students taught with contextual learning strategy on the basis of language exposure ecology and those taught with direct learning strategy; 2) the difference in the mastery of English vocabulary between students having high motivation to learn and those having low learning motivation; 3) the interaction effect of between learning strategies (language exposure ecology and direct learning) and learning motivation to students' mastery of English vocabulary.

RESEARCH METHOD

The study used a Quasi-experimental research design in the form of factorial 2 x 2 version non-equivalent control group (Tukman, 1999). The procedure started with giving pre-test, treatment, posttest after 8 time class meetings. The variables of this study consist of three types, namely independent variable, moderatig variable and dependent variable. Learning strategies as independent variables has two dimensions, contextual learning strategy on the basis of language exposure ecology and direct learning strategy. This variable was manipulated and predicted to affect the dependent variable. Moderating variable in this study is the learning motivation to learn (high and low). Students' learning achievement (vocabulary mastery) becomes the dependent variable. The seventh grade students of SMP Negeri 11 Kupang were the subjects of the research. Of the eight classes, two classes were randomly chosen, class A as experimental group, while class F as control group.

Instruments used in the study were classified into 2 (two) types, namely: (1) instruments to measure English learning achievement, namely the mastery of vocabulary (pretest and posttest) and (2) instrument (questionnaire) to measure the level of learning motivation. Before using them, all instruments were firstly validated, both in the content and the test items. The collected data were then analyzed descriptively and statistically (ANOVA, using SPSS 16.0 windows version.

RESULTS AND DISCUSSION

Result

Table 1: Summary of ANOVA testing result

Tests of Between-Subjects Effects					
Dependent Variable: Achievement test (English vocabulary mastery)					
Source	**Type III Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Corrected Model	5995.151[a]	3	1998.384	65.398	.000
Intercept	199467.581	1	199467.581	6.528E3	.000
Strategy	393.749	1	393.749	12.886	.001
Motivation	5614.495	1	5614.495	183.738	.000
Strategy * Motivation	68.768	1	68.768	2.250	.141
Error	1313.956	43	30.557		
Total	235096.000	47			
Corrected Total	7309.106	46			
a. R Squared = .820 (Adjusted R Squared = .808)					

The result showed: 1) there was a significant difference in the mastery of English vocabulary between students taught with contextual learning strategy on the basis of language exposure ecology and those taught with direct learning strategy. It can be seen from the calculated F ratio of 12.886 and the significance probability value of 0.001. The significance value was lower than 0.05 ($p < 0.05$), so that Ho was rejected and H1 was accepted. 2) There was a significant difference in the mastery of English vocabulary between students having high motivation and those with low motivation. This is indicated by F ratio of 183.738 and significance probability value of 0.000. The significance value was lower than 0.05 ($p < 0.05$) so that Ho was rejected and H1 was accepted. 3) The ratio of F for the interaction between these two variables was 2.250 with a probability value of 0.141. The significance level was greater than 0.05, and it can therefore be concluded that there was no interaction between learning strategies (contextual learning strategy on the basis of language exposure ecology and direct learning) and the learning motivation (high-low) to students' mastery of English vocabulary

Discussion

First, the descriptive and statistical analysis of the collected data proves that there ia a differences in the mastery of English vocabulary between students taught with contextual learning strategy on the basis of language exposure ecology and those taught with direct learning strategy. Students learning achievement in the contextual learning strategy on the basis of language exposure ecology classroom (mean = 72, 17) is better than those taught in direct learning classroom (mean = 67, 17). This means, the contextual learning strategy on the basis of language exposure ecology has more influence on English vocabulary mastery than the direct learning strategy. In other words, the contextual learning strategy on the basis of language exposure ecology is more effective in learning English than direct learning strategy.

Increasing mastery of the English vocabulary through the contextual learning strategy on the basis of language exposure as shown in this study is theoretically possible because this learning strategy always holds the principles and contextual characteristics that emphasize students' involvement in the learning process. Through the contextual principle, the teachers always associate the learning materials with real life context that the students deal with on daily basis, within the family, school, community, or with the natural surroundings. Thus, the student should be able to link their knowledge to what happens in their daily activities. This is consistent with what Sanjaya (2007: 253) said, Contextual Teaching and Learning (CTL) is a learning strategy that emphasizes students' full involvement that make them able to find the material studied and relate them to real life situations.

As described in the previous section, contextual learning strategy on the basis of language exposure consists of several components; (1) teacher, including pedagogical and professional ability; (2) exposure field, which includes class meeting, ornaments, enrichment, and assessments; (3) process, which includes introducing new material, making summaries, giving independent tasks, and giving assessments. These components work together in a harmonious ecology (ecological language exposure) which can provide a positive influence on the mastery of English vocabulary. The results of this study prove that the improvement and expansion of language exposure have a significant effect on the mastery of English vocabulary.

The process of contextual learning strategy on the basis of language exposure ecology emphasizes the diversity and creativity. Students learn differently, competing to display their work in the display board. The situation is different with what happens in most schools today, where students sit orderly and politely hear what the teacher says. Degeng (2014) says that if the learning process still emphasizes on maintaining uniformity, then there will never be a place to develop creativity and learning enthusiasm.

Previous theoretical and empirical data strengthen these results, particularly regarding the role of language exposure in language learning. Briere (1978) found that "the amount of exposure to the target language in the formal and informal situations influence second language acquisition". In a very similar view, Carrol (1972) says "the more the exposure to the target language, the greater the success of students in proficiency test". Krashen (1985) in his research found that meaningful exposure to the language being studied is very important. These views confirm that the exposure to the language being learned, formally and informally, greatly affect the outcome of one's language learning. The more numerous and broader the exposure to English, the greater the success in studying the language will be.

On the other hand, direct learning has less influence on the mastery of English vocabulary. This is because the learning strategy is more teacher-centered. The English language exposure is very limited. Although the same teacher teaches both groups, the teacher has different learning scenarios. In the class taught with direct learning strategy, the teacher tends to use more Indonesian as the language of instruction. The classroom is not equipped with display boards and English Corner. Thus, the amount of English language learned is limited.

Second, both descriptive and statistical analysis proves that there is a differences in the mastery of English vocabulary between students who have high learning motivation with those having low learning motivation. Learning outcome of students who have high motivation (mean = 78, 20) to learn is better than that of students who have low learning motivation (55, 77).

The results of this study strengthen the results of previous studies conducted by Sheeraz (2016), and Tella (2007). Sheeraz' research results (2016) prove that the category of motivation to learn has an impact or influence on a student's academic ability, where the academic ability has increased according to the category of motivation to learn. Tella (2007) proves that students who have high motivation to learn obtain better learning outcomes than students who have low learning motivation.

Kitjaroonchai (2013) in his study at junior secondary schools in Saraburi province, Thailand, found that there was a positive correlation between English language learning outcomes with the level of motivation of the students. Students with high motivation to learn are more successful than students who have low motivation. Furthermore, research conducted by Gardner and Lambert (in Hamayan, 1977: 227) confirms that there is a significant relationship between learning outcomes and levels of student motivation in second/foreign language learning programs. Students who get high grades also have high motivation to learn a second language.

The results of this study strengthen the results of previous studies as described above, in the sense that there is a correlation between the level of learning motivation and success of a student. The higher the learning motivation of a student, the higher the results obtained.

Based on theoretical and empirical data stated above, regardless of differences in the fields of science, it can be concluded that motivation plays an important role in learning. In learning English as a foreign language, the role of motivation becomes even more crucial. When facing students who are actually less interested in learning English as a foreign language, which is considered very difficult to learn, teachers must find ways to establish, improve, and maintain students' motivation. Again, in a constructivist view, the teacher's task is not to teach, but to facilitate and to motivate.

Third, the results of the data analysis proved that there is no interaction between learning strategies (contextual learning strategy on the basis of language exposure and direct learning strategy) and learning motivation on English vocabulary mastery of the seventh grade students of SMP Negeri 11 Kupang. This indicates that the two variables (learning strategy and learning motivation) give the same strong influence separately. Hair et al (1995) says that the main influence of learning strategy and learning motivation to the learning outcomes have an impact

on the weak influence of the interaction between the two variables on the learning outcomes. This was reaffirmed by DeCaro et al (2013) who found that the main effect would weaken the influence of the strong interaction. Furthermore, even in different topics and fields, Ifamuyiwa et al (2012) who conducted research on the effect of problem-based strategies on high school students' achievement in math subject found that there was no interaction effect between learning strategies and gender on learning outcomes.

The results of this study were also supported by other previous studies. Billing (2013) proved that there was no interaction between learning strategy and learning motivation. Furthermore, research conducted by Tan (2011) states that learning strategies do not have a strong interaction with the learning motivation towards the acquisition of learning outcomes. While the research results of Sujarwo (2013) indicates that there is no interaction between learning strategies and learning motivation on learning outcomes. Prayekti (2015) revealed that there is no interaction between the learning model of problem-based learning versus direct learning and achievement motivation on learning outcomes.

However, there are also studies that show different results. Harahap (2009) in his research indicates that there was an interaction between web-based learning with learning activity in affecting learning outcomes in Chemistry subject. Hadi (2015) in his research concluded that there was an interaction between the learning strategies and motivation for learning outcomes of concept understanding.

CONCLUSION

Contextual learning strategy on the basis of language exposure proves to give a significant effect on the mastery of English vocabulary. Similarly, students' motivation also affects mastery of English vocabulary. However, when these two variables interact, it is proved that there is no effect on the results of learning English vocabulary. It is suggested that English teachers apply contextual learning strategy on the basis of language exposure that has been proved to provide more exposure of English which ultimately increase the results of learning English. In addition, English teachers need to improve their roles as motivators for students, particularly in learning English as a foreign language; a language which is considered difficult by most students.

REFERENCES

Barrows, H.S. & Tamblyn, R. 1980. *Problem-Based Learning*. New York, NT: Springer

Billing, H. 2013. *Effect of Inductive Thinking Model on Achievement Motivation of Students in Relation to their Learning Approach.* International Journal of Education and Psychological Research (IJEPR).ISSN: 2279-0179 Volume 2, Issue 4, pp: 49-59, November 2013

Briere, J.E. 1978. "Variable Affecting native Mexican Children learning Spanish as a Second Language". *Language Learning,* Vol. 28, No. 1.

DeCaro, D.A., DeCaro, M.S, Johnson, B.R. (2013). *Achievement Motivation and Strategy Selection during Exploratory Learning*. Departement of Psychology and Human Development. Vanderbilt University Nashville. USA: 370-375.

Degeng, P.D.D. 2014 Pengembangan Model Orkestra Pembelajaran Bermedia Montesori Untuk Pembelajaran Panca Indra dan Kecakapan Hidup Sehari-hari Anak Usia TK, *Prosiding Seminar Nasional Teknologi Pembelajaran*, Pascasarjana UM,

Djaali, 2000. *Psikologi Pendidikan*. Jakarta: PPS Universitas Negeri Jakarta

Glasersfeld, E. 1989. *Cognition Construction of Knowledge and Teaching*. Washington D.C,: National Science Foundation

Hadi, G.S. 2015. Pengaruh Strategi Pembelajaran Berbasis Masalah Versus Pembelajaran Langsung Dan Motivasi Berprestasi Terhadap Hasil Belajar Pemahaman Konsep Dan Kemampuan Berpikir Kritis Siswa. *Jurnal Pedagogi*. Volume 2 Nomor 2 Edisi Oktober 2015 .Fakultas Ilmu Pendidikan IKIP Mataram

Hair, J.F., Anderson, R.E., Tantham, R.L., dan Black, W.C. (1995). *Multivariate Data Analysis with Reading*. Fourth Edition, New Jersey: Prentice-Hall, Inc.

Hamayan, E., Genesee, F., dan Tucker, G.R. 1977. Affective Factors and Language Exposure in Second Language Learning. *Language Learning,* 27: 225-241

Harahap, R.K.A. 2009. Pengaruh Penggunaan Media Pembelajaran Berbasis Web Dalam Pembelajaran Inquiry Terhadap Hasil Belajar Siswa Pada Pokok Bahasan Ikatan Kimia, Tesis, Pascasarjanan, Unimed, Medan

Kitjaroonchai, N. 2013. Motivation Toward English Language Learning of Students in Secondary and High Schools in Education Service Area Office 4, Saraburi Province, Thailand. *International journal of Language and Linguistics.* 1 (1), 22-23.

Kolo, C. 2013 "Model Pembelajaran Bahasa Inggris Berbasis Ekologi Language Exposure", *Prosiding Seminar Nasional dalam Rangka Purnabakti Prof. Dr. A M Mandaru, M.Pd,*. Hlm. 38-48. Yogyakarta: Indie Book Corner

Komalasari, K. 2013. *Pembelajaran Kontekstual: Konsep dan Aplikasi*. Bandung: PT. Refika Aditama

Krashen,S. 1985. *The Input Hypotheis Issues and Implications*. Longman

Prayekti. 2015. Pengaruh Model Problem Based Learning Versus Ekspositori Dan Motivasi Berprestasi Terhadap Hasil Belajar Fisika Siswa SMA Kelas XI. *Prosiding Seminar Nasional Fisika dan Aplikasinya*. Sabtu, 21 November 2015.Bale Sawala Kampus Universitas Padjadjaran, Jatinangor.

Sanjaya, W. 2007. *Strategi Pembelajaran "Berorientasi Standar Proses Pendidikan".* Jakarta: Kencana Prenada Media Group.

Sheeraz, A.R. 2016. Influence of Achievement Motivation (AM) on Academic Achievement of Secondary School Students. *Paripex - Indian Journal Of Research.* Volume : 5, No. 1.

Sujarwo. 2013 Pengaruh Strategi Pembelajaran Inkuiri Terbimbing dan Ekspositori terhadap Hasil Belajar Sosiologi pada Siswa SMA yang Memiliki Tingkat Motivasi Berprestasi dan Kreativitas Berbeda. Disertasi UNM Malang.

Tan, I.G.C. 2011. Effect of Group Investigation on Acdemic Achievement and Motivation of High and Low Ability Students in Singapore Secondary Shools. (online). (http://www.iasce.net/publication,html), diakses 15 September 2014.

Tella, A. 2007. The impact of motivation on students' academic achievement and learning outcomes in mathematics among seconndary school students in Nigeria. *Eurasia Journal of mathematics, Science & Tekchnology Education*, 3 (2) 149 – 156.

Tuckman, W. B. 1999. *Conducting Educational Research: Second Edition.* USA: Harcourt Brace Jovanovich, Publisher.

The Implementation Degree Effect of Contextual Learning on Accounting Subjects in Senior High School toward Students' Learning Outcomes in Terms of Students' Learning Approach

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Abstract: This research was aimed to find out: (1) the implementation degree effect of contextual learning on accounting subjects toward students' learning outcomes; 2) the implementation degree effect of contextual learning on accounting subjects toward students' learning outcomes in terms of students' learning approach. This was descriptive-exploratory research. The research was conducted from February to July 2016. The research population were senior high school students of social program of class XII that have studied accounting learning materials in the academic year 2015/2016 in the Special Region of Yogyakarta. The sampling technique was cluster sampling. The sample of this research was 16 schools with the total number of respondents were 954 students. Questionnaire was employed as the data collection technique. The data analysis technique was based on regression by Chow's test. The results of this study showed that: 1) there is a significant effect of the implementation degree of contextual learning on accounting subjects toward students' learning outcomes; 2) students who applied deep approach learning significantly reinforced the implementation degree of contextual learning on accounting subjects toward their learning outcomes, while the students who applied surface approach learning did not significantly reinforce the implementation degree of contextual learning in accounting subjects toward their learning outcomes.

Keywords: contextual learning, accounting subjects, learning outcome, learning approach

Facts showed that even though there were dynamic developments of business, yet accounting learning had not much changed (Albrech and Sack, 2000; Sangster et al., 2007). The current accounting learning practices in many countries are still conventional (Duff and McKinstry, 2007), passive, (Bonner, 1999; Boyce et al., 2001), narrow procedural (Dempsey and Stegmann, 2001), less in equipping learners with a set of required competences (Mohamed and Lanshine, 2003), and one-way knowledge transferring (William, 1993; Saunders and Christopher, 2003).

Those accounting learning conditions urged accounting experts to propose method reformation in accounting learning, from conventional method to more developing-learners method (Rankin et al., 2003; Harnett et al., 2004). Conventional accounting learning only described the rules and standards that were considered as best practices in real world (Warsono, 2010). Conventional learning practices caused learners were not able to develop their real required competences in accounting practices, such as critical thinking (Saudagaran, 1996; Springer and Borthick, 2004). Due to this state, Bricker and Etter (2008) suggested active learning strategies in accounting learning.

Active learning is a pedagogical approach involving learners in the process of acquiring knowledge (Brickner and Etter, 2008). Learners' active learning involvement will contribute to their: interests in learning materials, increments of intrinsic motivation, increments of

understanding as an effect of learners' refusal decrement toward learning materials, lifelong desires and competences development, communication improvement, better intrapersonal relationships, problem solving, critical analysis, and high-level thinking abilities. Active was learning method development also encourages learners to be more motivated to develop their deeper and broader knowledge (Warsono, 2010).

Ideas of active learning was in line with Warsono's research findings (2010) on allegedly factors of accounting learning problems at schools, such as: 1) quite wide variation in teachers' accounting knowledge; 2) learning methods that still need to have reliability and validity test; 3) lack of teachers' perception of students' abilities; and 4) students' perception of important accounting meaning which is more than a mere recording. These ideas were also in line with Suwardjono (2003) views on accounting learners' lack understanding on the first introductory stage that was caused by: firstly, accounting learning process in classroom tended to discuss "how" and be less emphasis on aspect "why"; secondly, accounting was often narrowly delineated as mere documentation process instead of information manipulation process in order to solve real problems in particular environment and to achieve certain goals.

To conduct effectively active learning, it is definitely related to teachers' function in conducting learning activities. Many teachers recently tend to choose easier ways to organize learning in classroom instead of improving effectiveness of learning process which involves students as learners. Generally, teachers' reluctance to change and their lack of willingness to try new learning technique have often been causes of inactive, less innovative, ineffective, and less fun learning process for students. Therefore, Anies Baswedan, ex Minister of Education and Culture, Republic of Indonesia, really expected teachers to apply relevant-to-life learning so that there was pleasant learning environment in order to improve students' imagination abilities to creatively think. (http://lipsus.kompas.com/kemdikbud/read/ 2015/04/08/07300021/Mendikbud.Guru.Jangan.Tertutup.saat.Memberi.Pelajaran.). In other words, accounting learning at schools is contextually planned and implemented, and designed in fun ways.

Contextual teaching and learning – CTL is a teaching and learning concept that helps teachers to correlate subject's contents to real-world situations and to motivate students to make connections of knowledge and its implementations for their lives as a member of family, a citizen, and a worker (Blanchard, 2001; Berns and Erickson, 2001). In order to organize proper contextual learning, teachers are required to be able to design the learning by connecting several forms of learning experiences for constructing expected outcomes (Hull's dan Sounders, 1996). In Indonesia, such learning became one of conceptual foundations to implement Curriculum 2013 (Mulyasa, 2013).

Theories and themes of CTL, such as knowledge-based constructivism, are linked with learning goals, student learning (Berns and Erickson, 2001) and student achievement (Berns and Erickson, 2001; Lynch, 2000). Lots of research conducted in Indonesia gave empiric proofs of it. Nonetheless, some research showed that one of factors that have yet been considered by researchers is students' learning approach paradigm. Learning approach paradigm is a framework to understand how students learn (Ramburuth and Mladenovic, 2004: Tight, 2003) and why a student learns better than other students (Marton and Booth, 1997). This approach is very important to understand learning from students' perspective (Biggs, 2003; Marton and Booth, 1997; Prosser and Trigwell, 1999; Ramsden, 2003; Richardson, 2000). According to Biggs (2001), students' learning approach consists of surface, deep, and achieving approach.

Students' learning approach is an integral part in education system model of Presage-Process-Product (3P) (Biggs, 1987; 1993). In education system model, factors of students, teaching contexts, approach of learning tasks, and learning outcomes are all interacting and forming a dynamic system. Interactions of presage factors, such as teachers' teaching contexts

and students' learning approach will eventually determine learning outcomes (Biggs et al., 2001).

The research was aimed to find out the implementation degree effect of contextual learning on accounting subject toward learning outcomes in terms of students' learning approach. The research was survey on class XII senior high school students of social program who had got accounting learning in academic year 2015/2016 in Special Region of Yogyakarta Province.

LITERATURE REVIEW

Contextual Teaching and Learning

Contextual Teaching and Learning – CTL is an educational process in which students discover meaningful relationship between abstract ideas and practical implementation in real world and internalize the concepts by discoveries, reinforcements and connections (Hull's and Sounders, 1996). CTL aims to facilitate students seek meanings on their academic materials by correlating academic subjects with their daily-life contexts, namely individual, social, and cultural life (Johnson, 2002).

According to Johnson (2002), there are eight main components of contextual learning: (1) making meaningful connections; (2) doing meaningful works; (3) creating self-managed learning; (4) teamwork; (5) thinking critically and creatively; (6) helping individuals to grow and develop. Students maintain to know, care, give high hopes, motivate, and reinforce themselves to grow and develop; (7) achieving high standards; and (8) applying authentic appraisal.

Contextual learning will help teacher to link between materials being taught and students' real-world situations and to encourage students to also make connections between their knowledge and its implementation in real life as a family member, a citizen, and a worker (Blanchard, 2001; Berns and Erickson, 2001). Therefore, contextual learning requires teachers to be able to design the learning by connecting several forms of learning experiences for constructing expected outcomes (Hull's & Sounders, 1996). Teachers have to apply more learning strategies to assist students achieve the goals instead of only giving them information. Besides, teachers are supposed to be able to manage the class a team so that students will work hand-in-hand to discover new knowledge and skills instead of only accepting what teachers said.

Learning Approach

At first, students' learning approach was the most cited study in psychology (Marton and Saljo, 1976; Walberg & Haertel, 1992). Yet practically, the implementation of this approach extended into the fields of teaching and learning in higher education as well as being influential concepts for those two fields (Ramsden, 2003). Students' perception of their learning tasks was influenced by learning contexts (teaching, curriculum, and learning) and personal factors, such as learning orientations and experiences prior to education. Then, students' perception will determine suitable learning approach. Dynamic and fickle learning approach was depending on how students comprehend their learning tasks (Lucas dan Mladenovic, 2004; Ramsden, 1987).

Biggs et al. (2001) pictured out teaching and learning models as a system including: presage, process, and product (Figure 1). Presage takes factors that encourage students' involvement in learning process. These factors are knowledge, skills, and students' preferred

learning approach. Meanwhile, teaching contexts include the nature of contents being taught, teaching and assessing methods, teaching environment, and institutional procedures. They are interacting and determining students' learning approach which results to also determine students' learning outcomes. For instance, a student who prefers a certain learning approach will adjust its teaching contexts, materials being taught and expected learning achievements (Biggs et al., 2001).

In the 1970s, research of learning approach was design qualitatively by using interview method at University of Gothenburg in Sweden (Byrne et al, 2009). At that time, the research was aimed to investigate how students did their task, i.e. reading an academic article and being assessed based on their understanding of its article contents. (Marton, 1975; Marton and Saljo, 1976). From that research, it was identified that there was difference of students' understanding after implementing two different approaches in learning: firstly, students showed high understanding or commonly known as deep approach and secondly, students showed lower understanding or commonly known as surface approach. In the next research, Ramsden (1979) added one more learning approach adopted by his students, strategic approach. Biggs (1987) mentioned the term of strategic approach as achieving approach. In its development, all three deep, surface, and strategic approaches had been confirmed by studies in various disciplines as well as in different countries (Byrne et al., 2009).

A deep approach to learning is marked by individuals' commitment to learn and be interested in subjects being learned. Students who adopted this approach have characteristics of doing learning activities by comprehending the materials; playing interactions of proposed arguments, connecting knowledge with experiences, and evaluating to what degree conclusions are considered right based on presented proofs (Biggs, 2003; Prosser and Trigwell, 1999; Ramsden, 2003). Deep learning enables better results in terms of retention, transfer, integration, implementation on acquired knowledge, and high learning outcomes (Byrne et al., 2009; Ramsden, 2003; Watkins and Hattie, 1981). Conversely, a surface approach to learning is marked by individual less involvement in the learning process and learning methods that tend to be recitation on certain tasks and materials. This learning approach will direct to misunderstanding toward important concepts and bad learning outcomes (Booth, et al., 1999; Ramsden, 2003; Watkins and Hattie, 1981).

Meanwhile, students who adopted strategic approach to learning generally focus on high learning achievements. In other words, strategic approach showed the way students manage temporal and special contexts of their tasks (Biggs, 1987). Students' interest in learning content is supported by assessment requirements and they think the ways to achieve it. Students are competing and motivated to gather information on how assessment is done by their teachers (Duff, 2004). Strategic learning strategy, therefore, will maximize students' opportunity to succeed academically (Entwistle and Ramsden, 1983; Watkins, 2000). This description reflected that students' learning approach is very sensitive toward contexts of where learning process takes place. However, on the other side it gives educators opportunity to improve students' learning quality (Prosser dan Trigwell, 1999).

Biggs et al. (2001) developed students' learning model as involvement motive in learning tasks and strategies in order to realize their intentions and motives of learning (Biggs, 1987). Study process questionnaire – SPQ was used as measurement instrument. For that instrument, Biggs et al. (2001) revised two factors of learning approach, namely deep approach and surface approach which later is called R-SPQ-2F. The revision specifically was aimed to provide more suitable instrument for teacher to evaluate students learning approach and simplify the existing evaluation instrument. Based on research findings, Biggs et al (2001) showed that revised instrument's reliability can be seen by its Cronbach's alpha value that can be accepted and

confirmatory factor of analysis result indicates a relatively good fit of two designated factors. Either deep or surface approach is well-identified for sub-scales of motive and strategy.

Students' Learning Outcomes

Learning outcomes are assessment results of learning process and results. Learning outcomes can be identified by students' performance and affective achievements (Biggs 1993; Marton and Booth 1997). In regard to performance achievements, Ramsden (2003) described three main objectives of education: to teach students to analyze ideas or issues critically, to develop students' intellectual or thinking skills, and to teach students to comprehend principles or generalizations. According to Ramsden (2003), content assessment refers to what students are learning and curriculum. Performance achievement can be measured objectively and subjectively. Meanwhile, affective learning outcome is defined as feelings to be involved, values, motives, and intellectual development (O'Neil & Child, 1984). This measurement is definitely subjective and reflective, even though factors of satisfaction, enthusiasm, anxiety reduction, and qualitative measurement can be relatively revealed. Generally, the challenge of such measurement is students' perceptions; what considered "perfect" by one student can be considered differently by other students.

Theoretical Framework

Conceptual learning, as conceptual foundation of Curriculum 2013, is aimed to assist teachers to link between materials being taught and students' real-world situation and encourage them to make connection between their own knowledge and its implementation in their lives as a family member, a citizen, and a worker (Blanchard, 2001; Berns and Erickson, 2001). In contextual learning, teachers are supposed to be able to design learning environment by combining several forms of experiences in order to achieve the expected outcomes (Hull's & Sounders, 1996). Contextual learning, therefore, will assist students to seek meaning of academic material being taught and daily-life contexts including individual, social, and cultural life contexts (Johnson, 2002). Students can also use high-level thinking critically and creatively to analyze, create synthesis, solve problems, make decisions, and employ existing proofs and logic.

The implementation of contextual learning degree allegedly determines students' degree of achievement. Therefore, the degree of achievements will be different from one student to another due to variation degree of their learning involvement (Ramburuth and Mladenovic, 2004; Tight, 2003). Each student has their own characteristics which affect their approach to learning. Biggs (1987) classified students' learning approaches, namely surface, deep, and achieving approach. Yet Biggs et al. (2001) had revised those three approaches into two approaches: deep and surface approaches. These two approaches are seen to be able to identify motive subscale and students' learning strategies. The revision was expected to be able to provide suitable instruments for teachers to evaluate students' learning approaches and simplify existing evaluation instruments.

Abraham's finding (2006) showed that there was significant correlation between deep approach to learning and learning outcomes. However, the correlation between surface approach to learning and learning outcomes was negative. This finding was consistent to Watkins' (2000) and Entwistle and Ramsden's (1983) findings showing that students adopted deep approach to acquire better outcomes, yet students who adopted surface approach got lesser. Nevertheless, those findings are different from Watkins and Hattie (1981)'s findings that figured low correlation between deep approach and learning outcomes. It was assumed due to

students' own learning strategies and was perceived as correct strategies to meet assessment requirements. This encourages educators to examine the conformity between assessment strategies and learning objectives. Based on explanation above, this study formulated below hypotheses:

Ha_1 : There are some effects of contextual learning implementation on Accounting subject at Senior High School toward students' learning outcomes in terms of students' learning approach.

Ha_2 : There are some different effects of contextual learning implementation on Accounting subject at Senior High School toward students' learning outcomes in terms of students' learning approach. The degree effect of contextual learning implementation on accounting subject toward learning outcomes with deep approach is higher than using surface approach.

RESEARCH METHODS

Research Design

It was descriptive-exploratory research and designed using quantitative approach. Researcher intended to describe the factors that dealt with students' learning outcomes: the implementation degree of contextual learning on accounting subject in Senior High School and students' learning approach. The research was conducted on February to July 2016 in several Senior High Schools that had applied Curriculum 2013 for accounting subject in Special Province of Yogyakarta.

Population and Research Sampling

The research populations were senior high school students class XII of social program who had studied accounting learning materials in the academic year 2015/2016 based on Curriculum 2013 in the Special Region of Yogyakarta. Sampling technique was cluster sampling that was done by dividing population into some groups or clusters. Some clusters then were randomly chosen (Hartono, 2013). There were 16 schools with 954 students.

Research Variables and Its Measurement

Learning outcomes in this research referred to performance achievement in terms of students' affective performance to complete their learning process. In this study, learning outcome was based on an instrument developed by DeRoche's (2004). It consisted of 20 questions. For each question, there were 5 options in the form of Likert's scale. The implementation degree of contextual learning was emphasized on how often learning materials were correlated with students' real life in accounting learning implementation at senior high schools. The dimensions of contextual learning included the concepts of: relating, experiencing, applying, cooperating, self-regulating, and authentic assessing, and reaching high standard (Johnson, 2002; Sounders, 1999; ATEEC Fellows, 2000; Dikdasmen, 2003; Komalasari, 2011). Those seven dimensions in this research were developed into 33 indicators. Each indicator represented one question which consisted of 5 options in Likert's scale. Students' learning approach is a framework to comprehend how students learned and why one student to another student was different. The measurement of learning approach variable in this research referred to *The Revised Two Factor Study Process Questionnaire: R-SPQ-2F* which was developed by

Biggs et al (2001). This instrument had 20 questions of students' learning motives and students' common ways in learning. Each question had 5 options in Likert's scale.

Validity test result for variables of contextual learning implementation degree on accounting subjects, learning outcome, and students' learning approach showed that the values of *Corrected Item-Total Correlation* for each question was above 0.334 (theoretic r value on n = 35 and significance level 5%. Hence, it could be concluded that all questions for those three variables were valid. Meanwhile, reliability test result showed that Cronbach Alpha value for the contextual learning implementation degree on accounting subjects = 0.896, learning outcome = 0.899, and students' learning approach = 0.758. Therefore, it could be concluded that the instruments for those three variables were reliable (Nunnaly, 1978 quoted in Gozhali, 2001).

Data Gathering Technique

Data gathering technique used in this study was survey/self-administered survey for variables of contextual learning implementation degree on accounting subjects, learning outcome, and students' learning approach. Survey is primary data gathering method by giving questions to respondents (Hartono, 2013). Survey was conducted by giving written questionnaires directly to students who were research's respondents.

Data Analysis Technique

Descriptive statistic was used to describe the research data gathered from survey (questionnaires). The description of this research data was done based on Benchmark Reference Guideline *(Pedoman Acuan Patokan – PAP)* type II and complemented with the calculation of central tendency. Normality testing of data distribution was done using *One-Sample Kolmogorov-Smirnov Test* before hypotheses testing. Hypotheses is testing was done based on regression formulation by Chow (Gujarati, 1995), as follows:

$$Y_1 = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 (X_1 X_2) + u_1$$

Note:
Y = learning outcome variable; α_o = constant; X_1 = contextual learning implementation degree on accounting subjects in senior high schools variable; X_2 = students' learning approach; $X_1 X_2$ = interaction value between contextual learning implementation degree on accounting subjects in senior high schools variable and students' learning approach variable; $\beta_1/\beta_2/\beta_3$ = regression coefficient; u_1 = confounding regression.

To test significance level of regression coefficient from variables interaction $X_1 X_2$ toward Y_1, comparing significance value of regression coefficient (β_3) and significance level (α) 0.05 was done. Research hypotheses would be accepted if significance value of regression coefficient (β_3) was lower than significance level (α) = 0.05.

RESEARCH FINDINGS AND DISCUSSIONS

Research Findings

Research respondents consisted of 954 students: 323 of them (33.86%) were male students and 631 of them (66.14%) were female students; 900 of them (94.34%) were from public schools and 54 of them (5.66%) were from private schools. Yet, by considering respondents' school areas: 224 respondents (23.48%) were from Bantul Regency; 213

respondents (22.33%) were from Sleman Regency; 156 respondents (16.35%) were from Kulonprogo Regency; 163 respondents (17.09%) were from Yogyakarta City; and 198 respondents (20.75%) were from Gunungkidul Regency. Learning outcome was generally categorized as Good (average of 77.19 from a range of theoretical interval 20-100). Students' learning approach was generally categorized as Fair (average of 64.80 from a range of theoretical interval 20-100). Meanwhile, contextual learning implementation degree was generally categorized as Good (average of 122.98 from a range of theoretical interval 33-165).

Before hypotheses testing, researcher tested normality of data distribution for variables of contextual learning implementation degree on accounting learning, learning approach and learning outcome. Normality testing based on *One-Sample Kolmogorov-Smirnov Test* showed that the value of *Asymp. Sig. (2-tailed)* = 0.207 (see Table 1). The value was bigger than α value = 0.05. It meant that normality of data distribution for those three variables was normal.

Table 1. Normality testing of data distribution

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		954
Normal Parameters[a,,b]	Mean	.0000000
	Std. Deviation	7.82766622
Most Extreme Differences	Absolute	.034
	Positive	.034
	Negative	-.027
Kolmogorov-Smirnov Z		1.065
Asymp. Sig. (2-tailed)		.207

a. Test distribution is Normal.
b. Calculated from data.

First testing result showed that there were some effects of contextual learning implementation degree on accounting subject toward students' learning outcomes seen by the value of *Adjusted R Square* (R^2) was 0.281 (see Table 2). It meant that variation 28.1% of learning outcome variable was explained by contextual learning implementation degree on accounting subject variable. The rest of it, 71.9%, was explained by other variables than contextual learning implementation degree on accounting subject variable. Anova (*F test*) result showed that its value was 224.815 with *sig.* value = 0.000. Noting that the significance value was smaller than α value = 0.05, then regression model could be used to predict learning outcome. Contextual learning implementation degree on accounting subject variable had parameter coefficient value 0.461 with *sig.* value = 0,000 or smaller than α value = 0.05. Therefore, it was concluded that there was significant effect of contextual learning implementation degree on accounting subject toward students' learning outcome.

Table 2. Testing result on the effect of contextual learning implementation degree on accounting subject toward students' learning outcome

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,537[a]	,288	,281	8,095

a. Predictors: (Constant), Contextual learning

b. Dependent Variable: Learning outcome

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14732,526	1	14732,526	224,815	,000[b]
	Residual	62386,262	952	65,532		
	Total	77118,788	953			

a. Dependent Variable: Learning outcome
b. Predictors: (Constant), Contextual learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	45,079	2,157		20,895	,000
	Contextual_learning	,461	,017	,437	14,994	,000

a. Dependent Variable: Learning outcome

First testing result of the second hypothesis: the effect of contextual learning implementation degree on accounting subject toward students' learning outcome with students' deep approach moderating variable showed that the value of *Adjusted R Square* (R^2) was 0.510 (see Table 3). It meant that variation 51% of learning outcome variable was explained by contextual learning implementation degree on accounting subject variable and deep approach variable. The rest of it, 49%, was explained by other variables than contextual learning implementation degree on accounting subject variable, deep approach variable as well as the interaction of both variables.

Table 3. Testing result on the effect of contextual learning implementation degree on accounting subject toward students' learning outcome with students' deep approach moderating variable

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,715[a]	,511	,510	7,72207

a. Predictors: (Constant), X1.X2, Contextual learning, Deep approach

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20469,928	3	6823,309	104,427	,000[b]
	Residual	56648,860	950	59,630		
	Total	77118,788	953			

a. Dependent Variable: Learning outcome
b. Predictors: (Constant), X1.X2, Contextual learning, Deep approach

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	55,644	13,495		4,123	,000
	Contextual_learning	,313	,112	,322	3,117	,023

	Deep_approach	,327	,399	,313	4,068	,006
	X1.X2	,305	,003	,302	3,586	,033

a. Dependent Variable: Learning_outcome

Anova (*F test*) result showed that its value was 104.427 with *sig.*value = 0.000. Noting that the significance value was smaller than α value = 0.05, then regression model could be used to predict learning outcome variable or it can be said that contextual learning implementation degree on accounting subject variable, students' deep approach variable, and interaction of both variables simultaneously influenced learning outcome variable. Interaction of contextual learning implementation degree on accounting subject variable and students' deep approach variable was 0.305 with *sig.*value = 0.033 or smaller than α value = 0.05. Therefore, the variable interaction of contextual learning implementation degree on accounting subject variable and students' deep approach variable was significant. It could be concluded that students' deep approach variable was moderating variable. Students' deep approach variable strengthened the effect of contextual learning implementation degree on accounting subject toward learning outcome.

Second testing result of the second hypothesis: the effect of contextual learning implementation degree on accounting subject toward students' learning outcome with students' surface approach moderating variable showed that the value of *Adjusted R Square* (R^2) was 0.286 (see Table 4). It meant that variation 28.6% of learning outcome variable was explained by contextual learning implementation degree on accounting subject variable and surface approach variable. The rest of it, 71.4%, was explained by other variables than contextual learning implementation degree on accounting subject variable, surface approach variable as well as the interaction of both variables.

Table 4. Testing result on the effect of contextual learning implementation degree on accounting subject toward students' learning outcome with students' surface approach moderating variable

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,538[a]	,289	,286	8,10055

a. Predictors: (Constant), X1.X2, Contextual learning, Surface approach

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14780,749	3	4926,916	75,084	,000[b]
	Residual	62338,039	950	65,619		
	Total	77118,788	953			

a. Dependent Variable: Learning outcome

b. Predictors: (Constant), X1.X2, Contextual learning, Surface approach

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	45,682	14,732		3,101	,002
	Contextual_learning	,244	,118	,409	2,078	,038
	Surface_approach	-,011	,498	-,006	-,023	,982

x1x2	,000	,004	,042	,122	,903

a. Dependent Variable: Learning outcome

Anova (*F test*) result showed that its value was 75.084 with *sig.*value = 0.000. Noting that the significance value was smaller than α value = 0.05, then regression model could be used to predict learning outcome variable or it can be said that contextual learning implementation degree on accounting subject variable, students' surface approach variable, and interaction of both variables simultaneously influenced learning outcome variable. Interaction of contextual learning implementation degree on accounting subject variable and students' surface approach variable was 0.000 with *sig.*value = 0.093 or smaller than α value = 0.05. Therefore, the variable interaction of contextual learning implementation degree on accounting subject variable and students' surface approach variable was not significant. It could be concluded that students' surface approach variable was not moderating variable. Students' surface approach variable did not strengthen the effect of contextual learning implementation degree on accounting subject toward learning outcome.

DISCUSSIONS

Testing result of the first hypothesis showed that there was significant effect of contextual learning implementation degree on accounting subject toward students' learning outcome (*sig.* value = 0,000 < α = 0,05). The value of *Adjusted R Square* (R^2) was 0.281 which meant variation 28.1% of learning outcome variable was explained by contextual learning implementation degree on accounting subject variable. The rest of it, 71.9%, was explained by other variables than contextual learning implementation degree on accounting subject variable. The implementation degree of contextual learning on accounting subject at academic year 2015/2016 and learning outcome as found in this research was categorized as Good. Good implementation degree of contextual learning indicated that teachers made efforts to correlate learning materials with students' real life in accounting learning process at senior high schools. In this context, teachers were sought contextual learning in accounting learning by paying more attention to concepts of relating, experiencing, applying, cooperating, self-regulating, authentic assessment, and reaching high standard (Johnson, 2002; Sounders, 1999; ATEEC Fellows, 2000; Dikdasmen, 2003; Komalasari, 2011). That learning conditions would eventually have good effect on students' learning outcome. This finding was in line with Ramburuth and Mladenovic's view (2004) and Tight's (2003) who stated that learning outcome was relied on students' involvement in learning.

Contextual learning was meant to assist teacher in correlating the taught materials with students' real life and to encourage students to create correlation between their own knowledge with its implementations in real life as a family member, a citizen, and a worker (Blanchard, 2001; Berns and Erickson, 2001). Therefore, contextual learning urged teachers to be able to design a learning environment as a combination of some experiential forms in order to achieve the expected result (Hull's and Sounders, 1996). Contextual learning helped students to make meaning of academic materials given by connecting academic subject to daily life contexts, such as individual contexts, social and cultural contexts (Johnson, 2002). Students could engage higher way of thinking critically and creatively to analyze, create synthesis, solve problems, make decisions, and make use of existing proofs and logic.

Testing result of the second hypothesis (first and second for the second hypothesis) showed that there was different effect of contextual learning implementation degree on accounting subject toward students' learning outcome in terms of students' learning approach. Deep approach strengthened contextual learning implementation degree on accounting subject

toward students' learning outcome. It was seen by the value of *Adjusted R Square* (R^2) that was previously 0.281 to be 0.510 with the coefficient interaction value of contextual learning implementation degree on accounting subject toward students' learning outcome with deep approach was 0.305 and *sig.* value = 0.033. On the other hand, surface approach did not support the degree effect of contextual learning implementation degree on accounting subject toward students' learning outcome. It was seen by its coefficient interaction value of contextual learning implementation degree on accounting subject toward students' learning outcome with surface approach was 0.000 and *sig.* value = 0.903.

A deep approach to learning was signified by individual commitment to study and individual interest in subject studied. Students who adopted this approach would be characterized by doing learning activities, comprehending materials, interacting critically with the proposed arguments, connecting knowledge with experiences, and evaluating to what extent conclusions was seen correct based on proofs (Biggs, 2003; Prosser and Trigwell, 1999; Ramsden, 2003). Deep approach enabled better results in terms of retention, transfer, integration, implementation of received knowledge, and high-quality learning outcome (Byrne et al., 2009; Ramsden, 2003; Watkins and Hattie, 1981). Deep approach, therefore, improved students' learning outcomes. Meanwhile, students who adopted surface approach got worse scores. Based on this research finding, teachers are supposed to see the conformity between assessment strategies and learning objectives

The research results were in line with Abraham's findings (2006) revealing that there was significant relationship between deep learning approaches and learning outcome. Yet, in reverse, surface learning approach had negative correlation. The research results were also consistent to Entwistle and Ramsden's findings (1983) and Watkins' (2000) revealing that surface approach had significant negative correlation with academic achievements. However, this research result was different from Watkins and Hattie's findings (1981) that showed no significant correlation between deep approach and learning outcome since students had their own learning strategies that were perceived as appropriate strategies to meet assessment requirements.

CONCLUSIONS

The research results showed that there was significant effect of contextual learning implementation degree on accounting subject toward students' learning outcome and there was different effect of contextual learning implementation degree on accounting subject toward students' learning outcome in terms of students' learning approach. In line with these research results, it is suggested: 1) teachers need to continuously practice and improve contextual learning implementation on accounting subject since it can improve students' learning outcome. To be true, schools need to facilitate teachers by giving trainings, workshops, etc. so that teachers are able to implement better contextual learning on the subject taught; 2) teachers need to encourage students to implement deep approach on their own learning. In teaching and learning process, teachers need to continuously grow students' individual commitment to learn and grow interest in taught subjects, to critically interact with the proposed arguments, to relate knowledge with experiences, and to evaluate to what extent the conclusions are seen correct based on proofs. Therefore, teachers are supposed to always see the conformity between assessment strategies and learning objectives. By doing so, learning is expected to be more meaningful for students in order to develop and improve their knowledge, attitudes, and behavior.

REFERENCES

Abraham, A. 2006. Teaching and Learning in Accounting Education: Students' Perceptions of the Linkages between Teaching Context, Approaches to Learning and Outcomes. Article on *Celebrating Accounting* in R. Juchau dan G. Tibbits, University of Western Sydney.

Albrech, W.S. & Sack, R.J. 2000. Accounting Education: Charting The Course Through a Perilous Future. *Accounting Education Series.* Vol. 1 No 36. Florida: American Accounting Association

ATEEC Fellows. 2000. *Teaching for Contextual Teaching and Learning*. [online]. Tersedia: http://www.ateec.org/curric/ctlinfo.cfm-24 k

Baswedan, A. 2015. Guru Jangan Tertutup saat Memberi Pelajaran. Tersedia di http://lipsus.kompas.com/kemdikbud/read/2015/04/08/07300021/Mendikbud.Guru. Jangan.Tertutup.saat.Memberi.Pelajaran.

Berns, R.G. & Erickson, P. M.. 2001. Contextual Teaching and Learning The Highlight Zone: Research @ Work No. 5. [online]. Tersedia: http://www. nccte.org/publications/ infosynthesis/highlightzone/highlight 05/index.asp

Blanchard, A. 2001. Contextual Teaching and Learning. [online]. Tersedia: http://www.horizonshelpr.or/contextual/contextual.htm-8k

Biggs, J. 1987. *Student Approaches to Learning and Studying*. Melbourne, Australia: Australian Council for Educational Research.

Biggs, J. 1993. What Do Inventories of Student Learning Process Really Measure? A Theoretical Review and Clarification. *British Journal of Educational Psychology, 63*, 3-19.

Biggs, J. 2001. The Reflective Institution: Assuring and Enhancing the Quality of Teaching and Learning. *Higher Education, 41*(3), 221-238.

Biggs, J. 2003. *Teaching for Quality Learning at University* (2nd edition). Buckingham, United Kingdom: SRHE and Open University Press.

Biggs, J.B., Kember, D., Leung, D.Y.P. (2001). The Revised Two Factor Study Process Questionnaire: R-SPQ-2F. *British Journal of Educational Psychology. 71,* 133-149

Booth, P., Luckett, P., Maldenovic, R. 1999. The Quality of Learning in Accounting Education: The Impact of Approaches to Learning on Academic Performance. *Accounting Education: An International Journal,* 8 (4), 277-300.

Bonner, S.E. 1999. Choosing Teaching Methods Based on Learning Objectives: An Integrative Framework. *Issues in Accounting Education*. Vol. 14 No 1 hal. 11-40

Boyce, G., Williams, S., Kelly, A. & Yee, H. 2001. Fostering Deep and Elaborative Learning and Generic (soft) Skill Development: The Strategic Use of Case Studies in Accounting Education. *Accounting Education: An International Journal*. Vol. 10 No 1 hal. 37-60

Brickner, D.R. & Edwin, R.E. 2008. Strategies for Promoting Active Learning in Principles of Accounting Course. *Academy of Educational Leadership Journal.* Vol. 12 No. 2 hal. 87-93

Byrne, M., Barbara, F., Pauline, W. 2009. An Inter-Institutional Exploration of the Learning Approaches of Students Studying Accounting. *International Journal of Teaching and Learning in Higher Education.* Vo. 20, No 2, 155-167

Demsey, A.& Stegmann, N. 2001. Research on Accounting I – Attracting and Retaining Learners. Tersedia di https://www.saica.co.za/documents/ Accoun-ting%201.pdf diakses November 2015

DeRoche's, E. 2004. Evaluating Character Development: 51 Tools for Measuring Succes. Tersedia pada buku *Character Education by Design: A Blueprint for Success ful District and School Initiatives*. Maryland State Department of Education

Dikdasmen. 2003. *Pendekatan Kontektual (Contextual Teaching and Learning)*. Jakarta: Ditjen Dikdasmen

Duff, A. & McKinstry, S. 2007. Students' Aproaches to Learning. *Issues in Accounting Education.* Vol. 22, No. 2 hal. 183-214

Duff, A. 2004. Understanding Academic Performance and Progression of First Year Accounting and Business Economics Undergraduates: The Role of Approaches to Learning and Prior Academic Achievement. *Accounting Education: An International Journal, 13*(4), 409-430.

Entwistle, N., Ramsden, P. 1983. *Understanding Student Learning*. London: Croom Helm.

Gozhali, I. 2001. *Analisis Multivariate*. Semarang: Universitas Diponegoro

Gujarati, D N. 1995. *Basic Econometrics*. Singapore: McGraw-Hill Book Co.

Harnett, N., Romcke, J. & Yap, C. 2004. Student Performance in Tertiary-Level Accounting: An International Student Focus. *Accounting and Finance.* Vol. 44 No. 2 hal. 163-185

Hartono, J. 2013. *Metodologi Penelitian Bisnis: Salah Kaprah dan Pengalaman-Pengalaman.* Yogyakarta: BPFE Fakultas Ekonomika dan Bisnis UGM

Hull's, D. & Sounders Jr., J.C. 1996. The Coming Challlenge: Are Community Colleges Ready fo the New Wave of Contectual Learners?. *Community College Journal*.67, (2), hal 15-17

Johnson, E.B. 2002. *Contextual Teaching and Learning: What It Is and Why It Is Here to Stay*. California USA: Corwin Press, Inc.

Komalasari, K. 2011. *Pembelajaran Kontekstual Konsep dan Aplikasi*. Bandung: PT Refika Aditama

Lucas, U. & Mladenovic, R. 2004. Approaches to Learning in Accounting Education. *Accounting Education: An International Journal, 13*(4), 399-407.

Lynch, R.L. 2000. *New Directions for High School Career and Technical Education in the 21st Century*. Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, The Ohio State University, 2000. (ED 444 037). Tersedia di http://ericacve.org/majorpubs.asp

Marton, F. 1975. On Non-verbatim Learning: Level of Processing and Level of Outcome. *Scandinavian Journal of Psychology*, *16*, 273-279.

Marton, F. & Booth, S. 1997. *Learning and awareness*. Mahwah, NJ: Lawrence Erlbaum Associates.

Marton, F. & Saljo, R. 1976. On Qualitative Differences in Learning: I - Outcome and Process. *British Journal of Educational Psychology, 46*, 4-11.

Mohamed, E.K.A. & Lashine, S.H. 2003. Accounting Knowledge and Skills and The Challenges of a Global Business Enviroment. *Managerial Finance*.Vol. 29 No. 7 hal. 3-16

Mulyasa, H.E. 2013. *Pengembangan dan Implementasi Kurikulum 2013*. Bandung: Rosdakarya

O'Neil, M.J. & Child, D. 1984. Biggs' SPQ: A British Study of Its Internal Structure. *British Journal of Educational Psychology, 54*, 228-234.

Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 103 Tahun 2014 tentang Pembelajaran pada Pendidikan Dasar dan Pendidikan Menengah

Prosser, M., Trigwell, K. 1999. *Understanding Learning and Teaching*. Buckingham, United Kingdom: SRHE and Open University Press.

Ramburuth, P. & Mladenovic, R. 2004. Exploring the Relationship between Students' Orientations to Learning, the Structure of Students' Learning Outcomes and Subsequent Academic Performance. *Accounting Education: An International Journal*, 13 (4), 507-527.

Ramsden, P. 1979. Student Learning and Perceptions of the Academic Environment. *Higher Education*, 8, 411-427.

Ramsden, P. 1987. Improving Teaching and Learning in Higher Education: The Case for a Relational Perspective. *Studies in Higher Education, 12*, 275-286.

Ramsden, P. 2003. *Learning to teach in higher education* (2nd edition). London: Routledge Falmer.

Rankin, M., Silvester, M., Vallely, M. & Wyatt, A. 2003. An Analysis of The Implications of Diversity for Students' First Level Accounting Performance. *Accounting and Finance*. Vol. 43 hal. 365-393

Richardson, J.T.E. 2000. *Researching Student Learning: Approaches to Studying in Campus-based and Distance Education*. Buckingham, United Kingdom: The Society for Research in Higher Education.

Sangster, A., Stoner, G.N. & McCarthy, P.A. 2007. Lessons for The Classroom from Luca Pacioli. *Issues in Accounting Education*. Vol. 22, No. 3 hal. 447-457

Saudagaran, S.M. 1996. The First Course in Accounting: An Innovative Approach. *Issues in Accounting Education*. Vol. 11 No. 1 hal. 83-94

Saunders, G. & Christopher, J.E.R. 2003. Teaching Outside The Box: A Look at The Use of Some Nontraditional Teaching Models in Accounting Principles Courses. *Journal of American Academy of Business.* Vol. 3 No. 1 & 2 hal. 162-165

Sounders, J. 1999. Contextually Based Learning: Fad or Proven Practice. Tersedia di http://www.apf.org/forumbriefs/1999/fb070999.htm

Springer, C.W. &Borthick, A.F. 2004. Business Simulation to Stage Critical Thinking in Introductory Accounting: Rasionale, Design, and Implementation. *Issues in Accounting Education*. Vol. 19 No. 3 hal. 277-303

Suwardjono. 2003. *Akuntansi Pengantar: Proses Penciptaan Data Pendekatan Sistem*. Yogyakarta: BPFE

Tight, M. 2003. *Researching Higher Education*. Maidenhead, Berkshire, United Kingdom: McGrawHill.

Walburg, H. & Haertel, G. 1992. Educational Psychology's First Century. *Journal of Educational Psychology*, *84*(1), 6-19.

Warsono, S. 2010. *Reformasi Akuntansi: Membongkar Bounded Rasionality Pengembangan Akuntansi*. Yogyakarta: Asgard Chapter

Watkins, D. 2000. Learning and Teaching: A Crosscultural Perspective. *School Leadership and Management, 20*(2), 161-173.

Watkins, D. & Hattie, J. 1981. The Learning Processes of Australian University Students: Investigations of Contextual and Personalogical Factors. *British Journal of Educational Psychology, 51*(3), 384-393.

William, D.Z. 1993. Reforming Accounting Education. *Journal of Accountancy*. Vol. 176 No. 2 hal 76-82

The Influence Of Learning Model (Creative Problem Solving Vs. Based Learning) Department of Pancasila Civic Education, Teacher Training and Education Faculty of Nusa Cendana University

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Abstract: Learning is a process to help people in developing themselves and enhance the dignity of man, so man is able to cope with any changes towards a better direction. The learning process that should be centered on the learner is currently not running well that happens is that the learning process is centered on professors lead students to become bored and result in lower learning outcomes it is necessary to apply the learning that is more focused on the activity of students in solving the problems. The purpose of this study were Test the significant influence learning outcomes among students taught by learning model (Creative Problem Solving and Problem Based Learning model of learning. This type of research used in this research is quantitative research by using a quasi-experimental design (quasi-experimental design). In particular, this study used a control group design version 2x2 factorial nonequivalent pretest-posttest control group design. The study population was majoring PPKn Teacher Training and Education Faculty of Nusa Cendana University Kupang. Samples were taken from the third semester students of the academic year 2015/2016 to 25 people per class. The number of active students completed the study were 50 people. The results obtained in this study were no influence learning model to the learning outcomes of students, where students are taught creative problem solving learning model has a higher learning outcomes.

Keywords: creative problem solving, problem based learning, and learning outcomes.

The strategy is an attempt to gain success and success in achieving its objectives. In the world of education strategies can be interpreted as a plan, method, or series of activities designed to Achieves a particular educational goals (Davis, 1971). Learning strategy can be interpreted as a plan that contains a series of activities designed to achieve specific educational objectives. Learning strategy is a plan of action (set of activities), including the use of methods and utilization of various resources or strength in learning which is structured to achieve the goal. In this case the learning objectives. Learning strategy is a learning activity that must be done professors and students so that learning objectives can be achieved effectively and efficiently (Yamin, 2006). On the other hand Dick and Carey (1985) states that the learning strategy is a set of instructional materials and procedures that are used together in the world of education to lead to student learning outcomes.

Civic education is a subject that is taught at every level of education in Indonesia ranging from elementary school to high school. Citizenship education defined broadly to include the process of preparing the younger generation to take on their roles and responsibilities as citizens, and in particular the role of education (including schooling, teaching, and learning) in the preparation of such citizens. One important thing to determine ahead of a nation, then to

produce human resources as subjects in a good development, required capital from the education itself. Especially for subjects Civic Education, in addition to having an abstract nature, a good understanding of the concept is very important. In learning Citizenship Education, especially at the university level, should be developed as an order of social conducive provide opportunities for the growth of the basic values of religion and culture, nationality and patriotism lifetime to master, apply and develop science, technology and art supportive various personal qualities of students. University as an integral part of society needs to be developed as a center for cultivation and empowerment of lifelong learners, capable of exemplary members, build willingness and develop the creativity of learners in the learning process democratic.

In the process of learning in the classroom there is a close relationship between faculty, students, curriculum, facilities and infrastructure. Lecturer has the task to choose a model and learning media appropriate to the learning styles of learners and in accordance with the submitted materials to achieve good learning outcomes.

In fact, until now there are still many difficulties experienced by students in the study subjects Civic Education. The result is the difficulty of students to understand the following concepts as prerequisite concepts not yet understood. According Uzer (2006) Interactions in learning events have a broader meaning, not just the relationship between faculty and students, but in the form of educational interaction. In this case was not delivering a message in the form of the material, but the cultivation of attitudes and values in students who are learning themselves. Teaching is to guide student learning activities so that students have the intention to learn. Thus, the activity of the students is indispensable in the learning activities so that was students who should be actively involved, for students as subjects students who plan and carry out its own student learning.

In fact, often an active lecturer so that students are not given the opportunity to be active, learning is still conventional, trends lecturers who use the lecture method. Studying process is merely enlarged results rote learning or memory (Mansoer, 2006). This is causing saturation of the students; of course, it is also an impact on student learning outcomes is low. This problem must be solved by the lecturers who have a very important role in determining the quantity and the quality of teaching is implemented. Therefore, teachers should think about and plan carefully to improve learning opportunities for students and improve the quality of learning. This requires changes in the organization of the classroom, the use of teaching methods, learning strategies and attitudes and characteristics of the faculty in managing the learning process. Lecturer as a facilitator seeks to create learning conditions, develop teaching materials with good and improve students' ability to listen to the lessons and master the educational goals they achieve.

Learning Model Creative Problem Solving (CPS) is a learning model that focuses on teaching and problem solving skills, followed by strengthening the skills (Pepkin, 2004) according to Zaenab (2012) model of learning Creative problem Solving (CPS) is a learning model that aims to find solutions and creatively presented. By using this model is expected to generate interest at a time of creativity and motivation of students in studying citizenship, so that students can gain the maximum benefit from both the process and outcomes of learning. Creative Problem Solving has greater functionality, which became the foundation for the development of learning activities in the classroom, student involvement in the development of self-evaluation and development of awareness of their development (Pepkin, 2004). The results of the Hartantia (2013) entitled "Application of Learning Model Creative Problem Solving To Increase Interests and Learning Outcomes Student Class XI. IA Colomadu senior high school, Academic Year 2012/2013 ", it is known that CPS learning model can improve student learning outcomes, case for the application of the model CPS can create interest, creativity, and

motivation of students in the learning process, in order to obtain the maximum benefit from both process and outcome learn. And students are required to be able to solve problems in groups and prosecute individuals participate actively expressing their opinions. It is also reinforced by previous studies (Wisdom, 2009) which implement problem-based learning model of the type of creative problem solving and increased student learning completeness.

Research conducted by Pratiwi (2014) by applying the Creative Problem Solving learning model in class IX Tuntang junior high school results showed that the students seemingly more interested in following the math, because this class is very visible in the number of students who pay attention to the teacher's explanation. Besides that, the students became more active when the learning took place and were able voiced opinions / ideas to solve the problems given that teachers improve student teaching outcomes class IX Tuntang junior high school. This is consistent with one of the advantages of the model CPS is to make students active in learning acting and trained to think critically and creatively, because the issues presented at the beginning and give freedom to the students to find the directions of completion in order to improve learning outcomes (Shoimin, 2014).

This is evidenced by research conducted by Malia Ulfa (2013) with the title "Model of Learning Problem Based Learning to Improve Learning Outcomes", it is known that the application of the model PBL can improve learning outcomes PKN class XI IPS-2 Klakah-Lumajang senior high school where there is a learning outcome. Bungel (2014) in a study of eighth grade students of Palu junior high school by applying the learning model Problem Based Learning (PBL), which aims to improve learning outcomes once applied learning model Problem Based Learning with five stages: stage of basic concepts, the problem definition, self-learning, learning and assessment group. From the final test results of action in the first cycle indicates that there are three students who were able to do with the proper completion, 7 students who reached the KKM and 24 students were able to use the formula in the settlement. The results of the final test action on the second cycle indicates that the student is able to perform the proper completion of the final test results declared by the second cycle of eighth grade students of Palu junior high school has reached minimal completeness criteria (KKM). This is because in learning with PBL will happen meaningful learning.

Students learn to solve a problem, then they will apply the knowledge they have or trying to find the necessary knowledge. This means that the learning is in the context of the application of the concept. Learning can be more meaningful, and can be expanded when students are dealing with a situation in which the concept is applied. In the situation of Problem Based Learning (PBL), students integrate knowledge and skills simultaneously and apply it in a relevant context. That is, what they do in accordance with the real situation is no longer a theoretical so that the problems in the application of a concept or theory they will be found and also during the learning takes place. PBL can improve the ability to think, to grow the initiative of students in work, internal motivation to learn, and can develop interpersonal relationships within the work group (Dasna, 2007).

Learning outcomes of learning outcomes is the result obtained learners are usually expressed in the form of numbers, letters, or words (Arikunto, 2006). Very important learning outcomes specified in the learning process because it is the purpose of a learning process yang intended to help learners achieve the goals set creation of learning environments, activities and learning experiences appropriate. Correspondence between the goals set and what should be learned then need to be made in the framework or taxonomy. Bloom (1956) describes the taxonomy of education in the cognitive dimension. There are six categories in the cognitive dimension proposed Bloom (1956), namely remembering, understanding, applying, analyzing, evaluation and create. Results of study on Pancasila introductory courses in this study are in the category of understanding. Learners are said to understand if it can construct meaning from

material or messages of learning, either orally, in writing or graphics delivered through learning, or other printed material.

Based on the description above, the writer is interested in conducting research with the title "The Effect of Learning Model (Creative Problem Solving versus Problem Based Learning) The Department of Student Learning Outcomes Civic Education Majors, Teacher Training and Education Faculty of Nusa Cendana University".

Formulation of the problem

The problems were created by the researchers in this study is: Is there any influence learning model (Creative Problem Solving Model versus Learning Problem Based Learning) on student learning outcomes?

Research purposes

The purpose of this experiment is to test the effect of significant learning outcomes among students taught by learning model (Creative Problem Solving and learning model Problem Based Learning)

RESEARCH METHODS

Place and Time Research

This research was conducted at the Department of Citizenship Education the Faculty of Education of Nusa Cendana University Academic Year 2015/2016 in September to complete.

Research subject

The subject of this research is Student Education Department Semester III citizenship. These subjects were then divided into two groups: the experimental class and control class random (random). Number each - each group is 25 people so there were 50 people in total subjects. Before learning activity begins, all students were included in this study are given tests to determine the learning style of the student's learning style both in the experimental class and the control class

Research variable

Which become variables in this study are:

1. The independent variable (X)

   The independent variable in this research is the application of learning models Creative Problem Solving (CPS) and the application of learning models Problem Based Learning (PBL).

2. Dependent variable (Y)

   Dependent variable in this study is the result of learning student of Department of Civics.

3. Control Variables include:

a. The time required in the learning process is controlled by equalizing the number of lessons.
b. Lecturer control by setting its own investigators as a lecturer.

Research Design

This study design is a real experimental study (rue experiment) research design pretest-posttest control group design that is shown in Table 3.1 below:

Tabel.1. Research design

Sampel	Pre test	treatment	Post tes
Class Experiment	T_1	X_1	T_2
Class control	T_2	X_2	T_2

Data analysis technique

A statistical analysis is usually used to test whether a hypothesis is rejected or accepted. In this study, the data obtained in the form of quantitative data, so it must be analyzed using statistical equations.

The statistical test used is the prerequisite test analysis (homogeneity and normality test), test the ability of the initial sample, and test research hypotheses.

1. Test requirements analysis

a. Normality test

Normality test is done to prove that the population in this study follows the normal distribution model. The equation used is:

$$X^2 = \sum_{i=1}^{k} \frac{(f_i - f_e)^2}{f_e}$$

f_e is obtained from the product of the number of data (n) with extensive opportunities or below the normal curve for the interval in question. To look for opportunities (area), use the equation:

$$Z_i = \frac{X_i - \bar{X}}{S}$$

H_o testing criteria is rejected if the real level α for testing. In other cases the hypothesis was accepted.

b. Homogeneity test

To determine whether or not a homogeneous population variance test was used Bartlet (Sudjana, 2005: 262). The aim is to facilitate the units needed in Bartlet test are tabulated as follows: List prices are needed to test Bartlet

Table 2. Test Bartlet

Sampel	**Dk**	**1/dk**	**Si^2**	**Log Si^2**	**Dk Log Si^2**
1	n_1-1	1/(n_1-1)	S_1^2	Log S_1^2	(n_1-1) Log S_1^2
2	n_k-1	1/(n_k-1)	S_k^2	Log S_k^2	(n_1-1) Log S_1^2
Jumlah	$\sum n_1$-1	$\sum \left[\frac{1}{n_i - 1}\right]$	-	-	$\sum(n_i - 1)\ Log\ S_i^2$

(Source: Sudjana, 2005: 262)

2. Ability Test Similarity Initial Sample

To find common ground prior knowledge of students from both groups of samples, the test used is a test of the two parties.

$H_0 : \mu_1 = \mu_2$: There is no difference between the initial ability of students taught by learning model Creative Problem Solving (CPS) and the students taught by learning model Problem Based Learning (PBL).

$H_1 : \mu_1 \neq \mu_2$ There is a difference between the initial ability of students taught by applying the learning model Creative Problem Solving (CPS) and the students taught by learning model Problem Based Learning (PBL).

Statistical equations used are:

$$t\frac{\dot{X}_1 - \dot{X}_2}{S\sqrt{\frac{1}{n_1}+\frac{1}{n_2}}}$$

$$S^2 = \frac{(n_1 - 1){S_1}^2 + (n_2 - 1){S_2}^2}{n_1 + n_2 - 2}$$

Testing criteria: accept H_0 if $-t_1$ values $-½\alpha < t < t_1 - ½\alpha$, where $t1-½\alpha$ t obtained from the distribution list by dk = $(n_1 + n_2 - 2)$ and opportunities $(1 - ½\alpha)$. For prices of other t H_o rejected.

3. Research Hypothesis Testing

a. For the first hypothesis (Test Two Parties)

1) H_0: $\mu 1 = \mu 2$: There is no difference in learning outcomes of students taught by learning model Creative Problem Solving (CPS) and the students taught by learning model Problem Based Learning (PBL).

2) H_a: $\mu 1 \neq \mu 2$: There is a difference in student learning outcomes are taught using learning model Creative Problem Solving (CPS) and the students taught by learning model Problem Based Learning (PBL).

Statistical equations used (Sudjana, 2005: 239) is:

$$t = \frac{\overline{X_1} - \overline{X_2}}{S\sqrt{1/n_1 + 1/n_2}}$$

$$S^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$$

Testing criteria: accept H_0 if $-t_1$ values$-½\alpha < t < t_1 - ½\alpha$, in manat $1-½\alpha$ t obtained from the distribution list by dk = $(n_1 + n_2 - 2)$ and opportunities $(1 - ½\alpha)$. For prices of other t Ho rejected.

Testing criteria accept H_0 if t is obtained from the distribution list to and opportunities for the prices of other t is H_0 rejected.

RESULTS AND DISCUSSION

Description Data Research

This research was conducted with the subjects is the third semester students Department of Citizenship education. The subjects who began the study amounted to 50 people and are divided into two groups each - each numbering 25 people. The first group is the experimental

class is a group totaling 25 people using learning method creative problem solving (CPS). The second group is control classes using problem-based learning method.

Table 3 Results of Analysis of learning outcomes

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
CPS Method	25	60	90	77.00	7.500
PBL Method	25	60	90	74.60	7.895
Valid N (listwise)	25				

From the test results obtained by descriptive results of the study showed that the average learning outcomes learning methods CPS is higher than the PBL learning method. CPS learning method gives an average of 77.00 while the PBL learning method gives a mean of 74.00

Test Prerequisites

Normality test

Test for normality in this study used analysis Kolmogorov-Smirnov (KS-Z). Normality test calculations performed using SPSS 16 for windows.

Table 4 Summary of Normality Test Distribution Data class Experiment

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Predicted Value
N		25
Normal Parameters[a]	Mean	77.0000000
	Std. Deviation	.55044053
Most Extreme Differences	Absolute	.255
	Positive	.255
	Negative	-.191
Kolmogorov-Smirnov Z		1.274
Asymp. Sig. (2-tailed)		.078
a. Test distribution is Normal.		

Table 5 Summary of Normality Test Distribution Class Data Control

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Predicted Value
N		25
Normal Parameters[a]	Mean	74.6000000
	Std. Deviation	1.52752523
Most Extreme Differences	Absolute	.253
	Positive	.253
	Negative	-.203
Kolmogorov-Smirnov Z		1.263
Asymp. Sig. (2-tailed)		.082
a. Test distribution is Normal.		

Based on the tables 4 and 5 were showed that between the variables are normal. From the analysis we value KS-Z distribution experiments class group has a value of 1.274 with sig > 0.05, it can be said to be variable in the control class are normal. For group control class value KS-Z has a value of 1.263 with sig > 0.05, it can be said to be variable in the control class has a value that is normal

Homogeneity test

Homogeneity test in this study was using levenne's statistics. Calculation of homogeneity test was performed using SPSS 16 for windows. Variance between groups said to be homogeneous if the value of the data's statistical significance levenne more than 0.05 (sig > 0.05). However, if the value levenne's statistical significance of less than 0.05 (sig < 0.05), the variance between the data group is not homogeneous. Below is presented Table 6 summarizes the variance homogeneity test data group.

Table 6 Results Testing Homogeneity Class Experiment

Test of Homogeneity of Variances			
eksperimet			
Levene Statistic	df1	df2	Sig.
3.334	6	13	.033

Table 7 Results of Testing Homogeneity Control Class

Test of Homogeneity of Variances			
PBL Method			
Levene Statistic	df1	df2	Sig.
1.312	2	22	.289

Based on table 6 and 7 results homogen test data using levenne's statistical test showed sig> 0.05 it shows that the distribution of data between the control group and the experimental class is homogeneous or equal

Hypothesis testing

Analysis of variance of two lanes is intended to prove the hypothesis proposed in the study. As described in Chapter 1, there are three hypotheses in this study. The following will discuss the results of each test research hypotheses.

Hypothesis testing
Hypotheses for variable learning method (A)
H_0: There is no difference in learning outcomes CPS teaching methods and learning methods PBL
H_1: there are differences in learning outcomes and learning methods CPS PBL

Table 8 Results of the analysis of two paths faktortial

Tests of Between-Subjects Effects					
Dependent Variable: Learning Outcames					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	12296.612[a]	4	3074.153	22.851	.000
Intercept	413205.128	1	413205.128	9447.951	.000
Metode	1324.099	1	1324.099	27.071	.020
Error	4646.628	95	48.912		
Total	482886.000	100			
Corrected Total	16943.240	99			
a. R Squared = .726 (Adjusted R Squared = .714)					

Results Test playing Effects on variable learning methods showed that the value of F test method of learning for the 27 071 with a value of significance ($P < 0.05$), then H_0 rejected and H_1 accepted meaning means there are differences in learning outcomes for students who are taught by teaching methods for Creative Problem solving with students being taught by using the method of Problem Based Learning. The analysis also shows that there are differences in the effect of group learning method based on the value pretest and posttest on methods of learning methods Creative Problem Solving for learning outcomes with value of F test of 4,550 with a value of significance ($P > 0.05$, so it can be concluded that there is the influence of learning outcomes based post test the value pretest and learning methods).

DISCUSSION

Research conducted at the Department of Citizenship Education the Faculty of Education at the University of Nusa Cendana III semester student introductory course on Pancasila. This research was conducted by using the application of learning methods Creative Problem Solving in the experimental class and learning methods Problem Based Learning in the control class. In the treatment of both the students and the students of the experimental class control class in the implementation process will be student results that include a cognitive domains. Rate cognitive aspects assessed in this study assessed use problems.

Before being treated first tested the ability of the initial sample either the experimental class or the control class. The data used in the initial test sample power parity was obtained using the initial capability test sample. Based on the results of the analysis were showed that there is no difference between the initial ability of students taught by applying the Creative Problem Solving learning methods with which students are taught using learning methods Problem Based Learning in the course Introduction to Pancasila.

After the data is analyzed using statistics, data analysis for the first hypothesis on cognitive obtained as in Fig.1 below

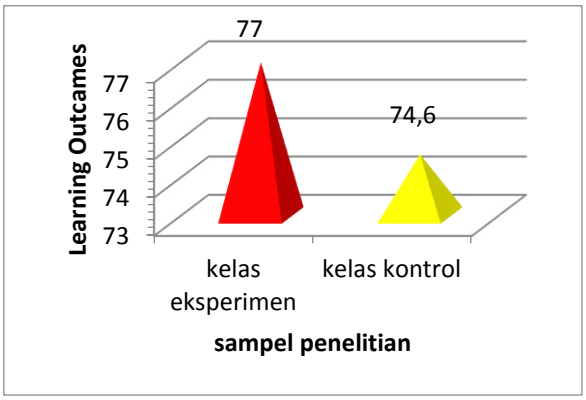

Fig.1 Graph citizenship Education Student Learning Outcomes

In Fig.1 it can be seen that there is a difference in student learning achievement among students in the experimental class is taught using instructional methods Creative Problem Solving with students in control classes taught using learning methods Problem Based Learning. In Figure.1 can also be seen that the learning outcomes of the third semester students Department of Citizenship Education the Faculty of Education University of Nusa Cendana in control classes taught using learning methods Problem Based Learning lower than students in the experimental class taught using learning model Creative Problem solving or cognitive learning results of the experimental class is higher than the control class. The results showed that the Creative Problem Solving learning model that can improve student achievement of learning outcomes. The results are consistent with research conducted by Rahman (2015) about the influence of the model CPS to the understanding of concepts and learning outcomes of students of class VIII Banjarmasin junior high school, by applying the learning model CPS on classroom experiments and models of problem based learning to control classes showed understanding concepts and learning outcomes of students in the experimental class is higher than the control class. CPS method was more emphasis on the process of the invention by the students so that the students' learning process will be stimulated to achievement. Through the application of the method will act CPS students and student learning will be based proxies on. Creative Problem Solving learning model to make students play an active role during the lecture because of activities performed on the stages of learning methods Creative Problem Solving creatively encourage students to engage in learning. Lecturers only served to condition the learning environment, prepare all that is necessary, and guide students when difficulties. Students demonstrate creative behaviors and active in implementing the learning activities such as finding a solution to the problems given to excavate and construct knowledge already possessed, experimenting in earnest as directed experiments, analyze experimental results based on observation and be able to explain the suitability of predictions with experiments have been done. By looking at the various activities that demonstrated the students during the learning takes place, it means the process of student learning can be considered successful because students are able to perform various physical activities and psychological.

In the control class, students are taught with the application of learning methods Problem Based Learning, lecturer first introduced the problem / issue to students to lure students to answer this question, after which the lecturer forming students into groups and encourage students to gather information to answer the question. After that the students in groups find solutions to these problems and then present the results of the discussion in the classroom. After the students presented the results of the discussion the lecturer will ask a few questions that correspond to the learning objectives that must be accomplished students. This question is given

on an ongoing basis to the students so that teachers can determine whether the learning objectives have been achieved by the students. In asking the question if there are students who cannot answer the question, the lecturer will ask follow-up questions to other students, but the question is still related to the previous question. At the end of lecturers will then conclude with student learning. In the process of discussion is likely to occur tense, however, can be socialized. In general, students will learn (think-working), so that they can train themselves in the confidence. With this technique, students will participate actively, but there is an element of tension and tired quickly. Although students active in observation but when lecturers conducting the assessment and evaluation of students tend to be difficult to answer questions asked teachers so teachers should explain the answers to these questions that lead students there who are not listening to the explanation of lecturers in addition students also considered the question by lecturers will be at your own responsibility by lecturers.

Application of the method of learning will have an effect on student learning outcomes. Appropriate learning methods and in accordance with the characteristics of learning materials. In this study learning method CPS influence on learning outcomes. Descriptive mean learning outcomes with teaching methods CPS higher than PBL method.

Pancasila introductory courses give students the opportunity to exploit the students in developing patterns of thought. CPS application of learning methods in addition to providing opportunities for students to develop themselves also provide opportunity for lecturers to be active in serving students. Lecturer as facilitator is expected to be able to improve the ability to master the material.

CONCLUSION

Based on the results of research and discussion can be concluded as follows: There is a learning model Influence (creative problem solving Vs problem based learning) to student results. Citizenship learning outcomes on student experimental group (learning model creative problem solving) higher than the control group student learning outcomes (learning model of problem-based learning).

SUGGESTION

The advice can be given based on the results of the study are

1. For research utilization

The learning model creative problem solving can be used as an alternative learning for faculty in an effort to improve learning outcomes Citizenship.

2. For advanced research

Need to do further research on other subjects by applying the learning model creative problem solving, need to be designed also research on other factors that may impact or direct influence on student learning outcomes such as student motivation, quality of interpretation and response to student and also need to be modified blend learning techniques in the application of learning models are varied.

REFERENCES

Anderson,L.W., & krathwhol, D.R.,2001. *A Taxonomy For Learning,Teaching, and Assessing : A Revision Of Bloom's Taxonomy Of Educational Objectives*. A Bridge Edition. New York : Addison Wesley Longman,Inc

Arikunto, S., 2006. *Prosedur Penelitian Suatu Pendekatan Praktek,* Jakarta: Rineka Cipta.

Barrows HS, Tamblyn, R. *Problem-Based Learning: An Approach to Medical Education.* New York: Springer, 1980.

Bloom, B.S. 1956. *Taxonomy of Educational Objectives: Cognitive Domain*. New York: David McKay Company.

DePorter, B. & Mike, H. 2002. *Quantum Learning: Membiasakan Belajar Nyaman dan Menyenangkan*. Bandung: Kaifa.

Dick, W. & Carey, L. 1994. *The Systematic Design of Instruction*. New York: Harper Collins Publishers.

Hamalik, O.2007. *Proses Belajar Mengajar* . Jakarta: Bumi Aksara.

Haris, 2013, Penerapan Model Pembelajaran PBL pada Pembelajaran Matematika, *Junal Media Sains.*

Hidayat, 2004. *Diktat Kuliah Teori Pembelajaran Matematika*, Semarang: FMIPAUNNES.

Huda, M. 2013. *Model-Model Pembelajaran dan Pengajaran*. Yogyakarta: Pustaka Pelajar.

Isaksen. 1995. *Creative problem solving: the History, development, and implications for gifted education and talent development*. Bergen-sandviken, Norway: fagbokfurlaget Vigmostad & Bjorke AS.

Oktaviani, A.N, dan Nugroho, S.E. 2015.Penerapan Model Creative Problem Solving Pada Pembelajaran Kalor Untuk Meningkatkan Pemahaman Konsep Dan Keterampilan Komunikasi. *Unnes Physic Education Journal* 4 (1) (2015) 27. ISSN 2252-6935

Osborn, A.F. 1963. *Applied Imagination*, New York: Charles Scribner's son.

Pandoyo, 1993, *Strategi Belajar Mengajar*, Semarang: IKIP Semarang Press.

Sanjaya, W. 2006. *Strategi Pembelajaran.* Jakarta: Bumi Aksara.

Sardiman.2007.*Interaksi Dan Motivasi Belajar Mengajar*:Bandung.Rajawali Pers.

Slameto. 1987. *Belajar Dan Faktor-Faktor Yang Mempengaruhi*, Jakarta: Rineka Cipta.

Sudjana, N. 2002, *Metode Statistik*, Bandung: Tarsito.

Sugihartono .2007.*Psikologi Pendidikan*, Yogyakarta : UNY Press.

Suyitno, A.P., Hidayah I., Suhito, dan Suparyan. 2000. *Dasar-dasar dan Proses Pembelajaran Matematika*, Semarang: Pendidikan Matematika FMIPA UNNES.

Trianto, 2007, *Model-model Pengajaran Inovatif Berorientasi Konstruktivistik*, Jakarta: Prestasi Pustaka.

Tuckman,1999, Conducting Educational Research by, Paperback.

UU. No.20 tahun 2003. *Sistem Pendidikan Nasional.*

Uzer Moh., 2006, *Upaya Optimalisasi Kegiatan Belajar Mengajar*, Bandung: Remaja Rosdakarya.

Von Oech, R.1990. *A Whack On The Side Of The Head: How You Can More Creative.* Warner Books.

Wood, C. 2006. The Development Of Creative Problem Solving in Chemistry. *The Royal Society of Chemistry*. 7(2): 96-113.

Factors Affecting ESL Reading Comprehension of Malaysian Secondary School Students

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Abstract: The ultimate goal of teaching reading is to enable the readers to understand what they have read. It is often the case that good readers have good vocabularies. They are able to understand and use the words correctly. This research was motivated by concern over the factors that affect reading comprehension among Form Two students in SMK Green Road Kuching, Sarawak. It was aimed at analyzing factors such as lack of interest, motivation, previous knowledge and vocabulary knowledge which could affect student's reading comprehension when reading and comprehending the text. Data were collected through the use of questionnaires which involved 30 students who were randomly selected as sample for this study. Percentages and frequencies were used to analyze the data collected. The findings revealed that the factors studied affected student's reading comprehension. An implication of the study is that teachers need to identify reading strategies that could help improve ESL students' reading comprehension of texts read.

Keywords: Reading comprehension, motivation, interest, previous knowledge, vocabulary knowledge

Reading is a skill that every student needs to master in order to understand the text well. However, the interest and to be able to read correctly is not enough if the students have poor understanding of the text. According to Maasum & Maarof (2012), the process of reading is a doorway to gain and learn more knowledge as it is important skill for the learners. The reading process is really meaning driven. Phantharakphong & Pothitha (2014) stated that the process of reading and comprehending the text refers to the capability to identify the information in written form.

Language plays a vital role in reading. In order to read and understand the content of the book, the students have to understand the language. For instance, if the student's knowledge of English is poor, then his or her reading will also be poor. Therefore, the students will have problem as they cannot use the language to communicate or to convey their ideas. The learners have a hard time to understand the written text as they still have difficulties in their reading comprehension (Phantharakphong & Pothitha, 2014). The learners also face difficulty in which they cannot understand the text and cannot relate what they have read and identified the meaning of the text.

Besides that, in order to understand the text well, learners also need use their background knowledge. The students need to understand the meaning of the text and able to make conclusion by using their own words based on their reading (Maasum & Maarof, 2012). The students will be able to understand the text better if they can connect the text to their background knowledge. Therefore, it is important for the teachers to activate students' background knowledge during the lesson to help them to comprehend the text well.

Interest plays important role in reading. Without interest, it is impossible to encourage students to read and try to comprehend the meaning of the text. For that reason, teachers have

to figure out each one of their students' interest or preferences in reading in advance. This will help the teachers to engage the students well during the lesson as well as to boost their interest to read. Yunus and Abdullah (2011) claim that "It is important that motivation plays the role in language learning and students need to initiate the steps towards language learning". According to Pardo (2004), the students' motivation is important to encourage students to keep on reading. Teachers also play important roles to always encourage their students to read. Teachers can provide their students with interesting reading materials according to the students' reading ability (Grimes, 2004).

Language learning, in order to be expert in all skills, students must have well-built vocabulary knowledge. Razak and Yunus (2016) stated that "Vocabulary acquisition is a crucial step in acquiring a language". According to Richek (2005), the reading achievement is related to reader's vocabulary knowledge. In order to understand the text well, students need to master their vocabulary skill.

The researcher is an English teacher who is teaching English as a second language to her fourteen years old students.Through her observations during the English lessons; she found out that her students refuse to read during the reading time. In her school, students will be given one hour to read in the library under teacher's supervision. However, her students did not read attentively but wasting their time whispering or talking to their classmates. It is important that the students make use of their reading time wisely as reading can assist them in their language learning especially to understand and comprehend the reading texts.

Hence, this study aims to investigate some factors such as lack of interest, motivation, previous knowledge and vocabulary knowledge which affect student's reading comprehension when reading and comprehending English text.

METHODOLOGY

This study utilizes the quantitative approach to evaluate the factors that affect student's reading comprehension in reading English text. In addition, the use of descriptive method also applied to explain the collected data of this study. A total of 30 students of Form Two students were randomly selected as research sample who involved in this study. In order to collect the data, the questionnaire was designed, structured and validated by 2 experts consisted of sixteen questions which employed the 5-point Likert Scale from "strongly agree" to "strongly disagree". The questionnaire was divided into two sections consisted of respondents' background information and the questions in three parts according to the objectives of this study.

The data collection was done by the researcher with the assistance of the school personnel. Out of 30 copies of the questionnaire distributed, all questionnaires were filled and returned. The data collected were arranged according to the objectives of the study during the analyzing process. The descriptive method such as frequency calculation and percentages were used to analyze the data collected.

RESULT AND DISCUSSION

Based on the data collection, a total of 30 Form Two students were randomly selected as research sample in SMK Green Road. In this study, 14 male respondents (46.7 %) and 16 female respondents (53.3 %) were selected in this research. All of them comprised of 11 Malay respondents (36.7 %), 12 Chinese respondents (40 %), 6 Iban respondents (20%) and 1 Bidayuh respondent (3.3%).

Main Findings of the Study

The main findings of the study are presented based upon the following factors:

Table 1: Lack of interest and motivation affect student's reading comprehension

Statement/Frequency	Strongly Disagree	Disagree	Rarely/ Neutral	Agree	Strongly Agree
1. My hobby is reading.	0	21	1	8	0
2. I read every day.	6	18	1	3	2
3. I interest in reading since young.	16	1	8	1	4
4. My interest motivates me to read.	2	15	3	4	6
5. I read two hours every day.	5	15	0	4	6

Table 1 showed that lack of interest and motivation affect student's reading comprehension. The result of each item in the questionnaire showed that:

1. Respondents did not treat reading as their hobby. (21 respondents-Disagree)
2. The respondents did not read every day.(18 respondents-Disagree, 6 respondents-Strongly Disagree)
3. Respondents did not instill their interest in reading since young. (1 respondents-Disagree, 16 respondents-Strongly Disagree)
4. The respondents are not motivated to read.(15 respondents-Disagree, 2 respondents-Strongly Disagree)
5. The respondents refuse to read even just for two hours.(15 respondents-Disagree, 5 respondents-Strongly Disagree)

From this finding, the researcher concludes that without interest and motivation, students will have difficulty to read and comprehend the text. According to McKenna et al. (1995) stated that not all secondary students fail to read but they just do not love to read. Therefore, this condition causes their motivation and interest in reading appears to decline in school every year. For many secondary students, reading is not a habit of their daily lives.

Table 2: Lack of Previous Knowledge Affects Student's Reading Comprehension

Statement/Frequency	Strongly Disagree	Disagree	Rarely/ Neutral	Agree	Strongly Agree
1. I can connect previous knowledge from different sources in the passage.	6	11	1	5	7
2. I relate new information to the background knowledge in my mind to understand the text.	4	13	0	9	4
3. I can imagine some scene described in the passage to facilitate my reading comprehension.	5	15	0	5	5
4. I use my previous knowledge and common sense to predict the main ideas of the passage.	7	15	0	7	1
5. I combine new information with what I have read in the passage to understand well.	5	13	0	8	4

6. I apply what I have learnt and read to facilitate my reading comprehension.	5	15	0	2	8

Table 2 portrays the result which showed that lack of previous knowledge affect student's reading comprehension. The result revealed that:

1. The respondents fail to connect their previous knowledge from different sources in the passage.(11 respondents-Disagree, 6 respondents-Strongly Disagree)
2. They fail to relate new information to the background knowledge in their mind to understand the text.(13 respondents-Disagree, 4 respondents-Strongly Disagree)
3. The respondents fail to imagine some scene described in the passage to facilitate their reading comprehension. (15 respondents-Disagree, 5 respondents-Strongly Disagree)
4. The respondents hardly predict the main ideas of the passage.(15 respondents-Disagree, 7 respondents-Strongly Disagree)
5. The respondents fail to combine new information with what they have read in the passage to understand well. (13 respondents-Disagree, 5 respondents-Strongly Disagree)
6. The respondents fail to apply what they have learnt and read to facilitate their reading comprehension.(15 respondents-Disagree, 5 respondents-Strongly Disagree)

The findings proved that lack of previous affect student's reading comprehension. Previous knowledge is important in reading skill as readers can illustrate and make connection with his or her reading. Johnson and Pearson (1982) acknowledged that lack of previous knowledge causes reading problems as they hardly make connection to the text they read.

Table 3: Lack of Vocabulary Knowledge Affects Student's Reading Comprehension

Statement/Frequency	Strongly Disagree	Disagree	Rarely/ Neutral	Agree	Strongly Agree
1. I have a dictionary.	6	13	1	3	7
2. I often use dictionary.	6	13	2	1	8
3. I know how to use dictionary to search the meaning of the words.	4	16	1	2	7
4. I think a dictionary helps me a lot as a source of reference to learn and understand unfamiliar words.	8	14	0	5	3
5. I think dictionary is a helpful tool in my learning process.	5	16	2	1	6

There were five items in this part. The data in Table 3 showed that lack of vocabulary knowledge affect student's reading comprehension. The result claimed that:

1. Respondents did not have a dictionary and bring effect to them in which they lack of vocabulary knowledge which is important for them in understanding the meaning of the word and comprehending the text. (13 respondents-Disagree, 6 respondents-Strongly Disagree)
2. The respondents did not often use dictionary. For that reason, they face a problem which they lack of vocabulary knowledge which leads to reading comprehension problem.(13 respondents-Disagree, 6 respondents-Strongly Disagree)
3. Some of the respondents did not know how to use dictionary to search the meaning of the words. It happen when respondents felt that vocabulary knowledge and the use of

dictionary did not important in their reading comprehension.(16 respondents-Disagree, 4 respondents-Strongly Disagree)

4. Half of the respondents lack of vocabulary knowledge and think that a dictionary did not help them a lot as a source of reference to learn and understand unfamiliar words in comprehending the text.(14 respondents-Disagree, 8 respondents-Strongly Disagree)
5. They think that dictionary is not a helpful tool in their learning process. For that reason, they did not refer to dictionary when they did not understand the text and it became worst when they face difficulty in their reading comprehension.(16 respondents-Disagree, 5 respondents-Strongly Disagree)

Last but not least, the result also revealed that lack of vocabulary knowledge is one of factors affect student's reading comprehension. Chall & Jacobs (2003) claimed that the students will have difficulty to comprehend the text if they do not improve their vocabulary knowledge. The mastery of vocabulary is essential for the students to learn and communicate by using the previous knowledge they have in mind. Therefore, if their vocabulary knowledge is not strong, they will have problem to express their idea or to convey message.

According to the tables above, the data was strong to be evidence and illustrated that mostly respondents selected strongly disagree and disagree which proved that lack of interest and motivation, previous knowledge and vocabulary knowledge affected respondents' reading comprehension.

CONCLUSION

Based on the research made, it was important for the teacher to find best technique of teaching based on the students' ability, background and previous knowledge, interest, motivation and vocabulary knowledge to gain their understanding in reading comprehension aspect. These motivate them to read books, journals, or other printed text especially English language. Besides that, teacher must know that students need to be told the purpose of reading for their future use. This is because English Language is uses in worldwide which are vital for everyone. Interesting teaching and learning process can help students to build their interest in learning English especially in reading aspect. In the future it is recommended that reading strategies should be applied by the schools because it can help teachers and students to overcome problems in reading comprehension.

REFERENCES

Bromley, K. 2004. Rethinking Vocabulary Instruction. *The Language and Literacy Spectrum*.

Chall, J.S., & Jacobs, V.A. 2003. Poor Children's Fourth-Grade Slump. *American Educator, Spring 2003.* American Federation of Teachers Cunningham, Pat.

Grimes, & Sharon. 2004. The Search for Meaning: How You Can Boost Kids's Reading Comprehension. *School Library Journal.*

Johnson, D.D. & Pearson, P.D. 1982. Teaching Reading Vocabulary. *New York: Holt, Rinehart and Winston*.

Maasum, T.N.R.T.M., & Maarof, N. 2012. Empowering ESL readers with metacognitive reading strategies. *Procedia-Social and Behavioral Sciences*, *69*, 1250-1258.

McKenna, M.C., Kear, D.J., & Ellsworth, R.A. 1995. Children's Attitudes Toward Reading: A National Survey. *Reading Research Quarterly*.

Pardo, & Laura, S. 2004. What Every Teacher Needs to Know About Comprehension. *The Reading Teacher.*

Phantharakphong, P. & Pothitha, S. 2014. Development of English Reading Comprehension by Using Concept Maps. *Procedia-Social and Behavioral Sciences, 116*, 497-501.

Razak, N.A.N.A., & Yunus, M.M. 2016. Using Action Songs in Teaching Action Words to Young ESL Learners.

Richek, M. 2005. Words are wonderful: Interactive, time-efficient strategies to teach meaning vocabulary. *The Reading Teacher*.

Yunus, M.M., & Abdullah, N.R.K.R.B. 2011. Motivation and attitudes for learning English among year six students in primary rural school. *Procedia-Social and Behavioral Sciences*, *15*, 2631-2636.

What Experts and Practitioners Say about Strategies in Acquiring Better Raw Input for Tvet Teacher Education?

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Abstract: Technical Vocational Education and Training Teacher Education (TVET-TE) fulfill vital roles in the global education community. They have the potential to bring changes within educational systems that will shape the knowledge and skills of future vocational teacher. The quality of prospective students as raw input is very important, because it influence on the effectiveness and efficiency of the process and the quality of output. In fact, TVET-TE still faced with the low input. It needs strategies in acquiring better raw input. This article based on a Grounded Theory research on apparel teacher education program, in Java 2015, with 8 experts and practitioners in education as key informan. Data collected by in-dept. interview and observation. Data analyzed through the series of open coding, axial coding and selective coding. The result state that based on the point of view of experts and practitioners, there are strategies in acquiring better raw-input: 1) there must be road show of TVET-TE socialization program to schools, 2) exhibition program of *Tri Dharma Perguruan Tinggi* implementation, 3) organize academic competitions and championships by TVET-TE for senior/vocational high school students to attract excellent prospective students, 4) give priority to the best ten of senior/vocational graduate entering TVET-TE, 5) give scholarship or tuition fee allowance for excellent students from low-income, 6) wider selection procedure both academic, vocational and psychological, particularly in interest and aptitude tests to the field of teacher training, , 7) Empowering TVET-TE student and graduates to give socialization to their juniors about their experiences and succeed during and after studied in TVET-TE.

Keywords: strategy, raw-input, TVET teacher education.

To achieve a successful education, the central goal is teachers and teacher education institutions. Teacher is one type of soft profession (Zamroni, 2000). Future teacher, described as pure water, which clarifies (Kemdikbud, 2013). Teacher education plays a crucial role in the preparation of teachers, not only enhancing their understanding and skill but also increasing the likelihood of their staying in the profession (Darling-Hammond, 2000; Roth, 1999). Learning to teach should be recognized as a process of continuous reconstruction of experience (Beck & Kosnik, 2006: 16).

Teacher education as part of a higher education institution, have a system that consists of input, process and output. One of the inputs in the higher education system approach is student, which can be identified by its characteristics: academic, demographic, needs and expectations, and interests (Mizikaci, 2006). The role of student as input in the higher education system approach is essential. Students are increasingly becoming a driver for quality teaching. In countries where students have a recognized status, they play an active role and are a powerful respected body. (Hénard, 2010). The student to be considered as external customer in the teaching activities in classrooms and the role as internal customer in his own learning process (Pereira & Da Silva, 2003).

To be able to produce qualified graduates as output in the higher education system, it must be preceded by the appropriate selection method to get prospective students, so they have a good quality standard. This is an attempt to improve the quality of education (Asmawi, 2005). "overall improvement in vocational skills for employability and citizenship can only be realized if there is an improvement in the quality, effectiveness and relevance of teachers" (Martin, Donoghue, & O'Neill, 2012: 33). Recruitment refers to the process of implementing a variety of marketing techniques to attract prospective students to enroll at a college. Recruiting is performed year round with many colleges offering prospective students the option to enroll in the college at specific times during the academic year (Ayouch, 2007). Among the most important features of teacher education are the criteria and procedures by which candidates are selected or recruited for entry into the teaching profession (Rena &Suleman, 2010). Student recruitment should be recognized as a key element in the sustainability and success of an institution and must be a priority in an institution's strategic plan. Equipping the admissions office to recruit the right students and the right number of students is critical to the long-term sustainability of an institution, and IT plays a vital role (Brown, 2014). In the process of recruitment of prospective students, it is possible some higher education institutions to do some activities that could attract the interest of prospective students. before the existing of *World Wide Web*, generally used: View Book, Open house events, Campus tours, letters and brochures, dan School visits (Ayouch, 2007), and also tour exhibition (Elfitri, 2012).

Based on the experience in Finland, that becoming a primary school teacher in Finland is a very competitive process, and only Finland's best and brightest are able to fulfill those professional dreams. Every spring, thousands of high school graduates submit their applications to the Departments of Teacher Education in eight Finnish universities. Normally it's not enough to complete high school and pass a rigorous matriculation examination, successful candidates must have the highest scores and excellent interpersonal skills. Annually only about 1 in every 10 applicants will be accepted to study to become a teacher in Finnish primary schools, for example. Among all categories of teacher education, about 5,000 teachers are selected from about 20,000 applicants (sahlberg, 2010).

METHOD

This article is based on the Grounded Theory Research on apparel teacher education program, in Java 2015, with 8 experts and practitioners in apparel and teacher education as key informan. Data collected by in-dept interview and observation. Data analysed through the series of open coding, axial coding and selective coding.

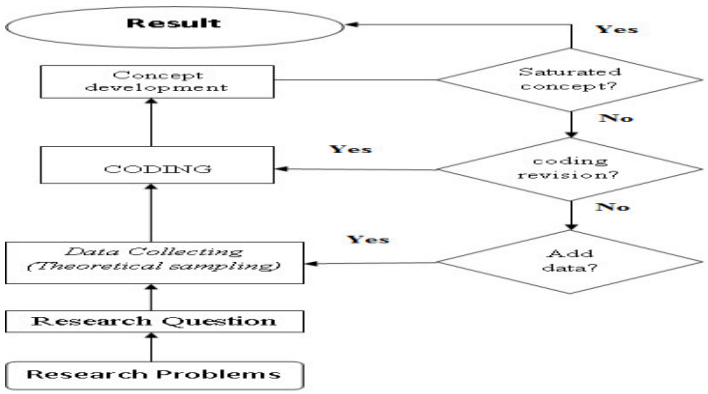

Diagram 1 Process of Grounded Theory Research

RESULT AND DISCUSSION

The results of in-depth interviews with key informants, problems related to the study, can be presented in the following description:

"Sosialisasi prodi ke sekolah menengah kemungkinan juga belum maksimal sehingga cakupan bidang yang ada mereka belum tahu. Kalo anak SMK nggak masalah karena sudah membidangi tata busana. Lha sekarang malah terbalik, lebih banyak mahasiswa background SMA yang masuk sini" (In-depth Interview evidence/P2-Q1-SW: 35-55)

The above statement states that Socialization conducted by the university to high school has not done optimally. so that students do not know about the coverage areas of study at the university. Apparel program may have been known by students from vocational schools but not necessarily the same as for students from public schools.

"Kita harus menyediakan waktu untuk datang kepada sekolah untuk mempresentasikan. Kalo jaman sekarang siswa sekarang kalo hanya kita omong saja kan kurang tertarik. Nah kita siapkan CD, tunjukkan secara detail prosedur dan apa ya...tahapan mereka ketika menghasilkan dan meneliti, menguji, mengeksplor itu kan penting banget. Sangat ilmiah. Kalau kita iming-iming mereka seperti itu pasti akan lebih memungkin kan mendapat input yang bagus" (in-depth interview evidence/ P2-Q1-SN: 87-129)

The second statement states we have to visit the school for a presentation. Nowadays, students will not be interested if given information anya through words, but must be coupled with how to deliver video, which in detail is able to illustrate the real and the evidence of learning and learning outcomes, the process of researching, exploring in the program of apparel very interesting and very scientific. I believe that with the efforts, many students at school who are interested intermediate and select apparel program for continued study

"Lebih bagus lagi ditunjukkan hasil-hasilnya kepada mereka. Ora ming gawe klambi thok, lha opo bedane karo kursus. Misal mengeksplorasi pembuatan kebaya dengan berbagai macam bahan tekstil, dengan pendekatan berbeda. Pokoknya semua kita sentuh dengan teknologi yang mampu menarik minat masyarakat" (in-dept interview/ P2-Q1-HRK: 140-145)

The third statement state that, It would be great if the indicated results to mereka tidak only make clothes alone but lmore scientific and draw from it all. So it can distinguish between study in the university and non-formal courses. For example explores the making *kebaya* with a wide variety of textile materials, with different approaches. So everything we touch with technology that is able to attract people

"Lha kadang-kadang kita terbentur dana sosialisasi, tidak ada SOP dari universitas untuk sosialisasi" (in-dept interview/ P2-Q1-DW: 153-154)

The fourth statement, state: sometimes we are constrained by lack of funds for socialization, no Standard Operating Procedure of the University for Socialization

Biasanya para alumni SMKN 6 yang di Universitas kita datangkan untuk memotivasi adik-adiknya. Sebenarnya sukses itu tidak harus lewat pendidikan tinggi, karena pendidikan tinggi juga terbatas. (in-dept interview/ P2-Q1-FY: 64-68)

The fifth statement stated: Usually we are inviting alumni SMK 6 are studying or even tela graduated from the University, to motivate students here. In my opinion, success does not have to ditempu through higher education, for higher education is also limited capacity.

"Harus ada mekanisme untuk mendapatkan guru yang kompeten, yang punya jiwa keterpanggilan dan jiwa ke sepenuh hatian, ya kan? istilahnya begitu, supaya pendi dikan bisa berubah". (in-dept interview/ P2-Q1-SUR: 101-103)

The sixth statement stated that there should be a special mechanism to get competent teachers, who had the soul of calling and soul to full attention. the term is so, so that education could change for the better.

> *"Itu tidak hanya untuk yang kejuruan. Bahkan seha rusnya mahasiswa lptk itu berbeda, jadi rekrutmen untuk inputnya seharusnya berbeda. lptk ini kan ca lon guru. jadi ee..harus ada sistem atau mekanisme yang berbeda dengan yang non guru. Jadi sejak dari in putnya terkait dengan apa....ee...motivasi, minat, kepri badian, termasuk juga penampilan, yak an? Semacam itu seharusnya dari awal masuk sudah berbeda "(in-dept interview/ P2-Q1-MT: 74-82)*

Statement above state that it is not just limited for teacher education. Even should the student of teacer education must be different. Recruitment for the input should be different. The teacher education institutions produce teachers. There should be a system or mechanism that is different from the non-teacher education. Thus began the inputs associated with motivation, interests, personality, including the performance must be considered. such things should be considered different from the initial entry

> *"Mendongkrak mutu pendidikan pada umumnya, seharusnya yang masuk untuk bisa menjadi guru itu adalah ee...anak-anak terbaik, kan gitu. Taruhlah misalnya di Finlandia, 10 siswa terbaik lah yang bisa menjadi guru. Sehingga guru itu seharusnya orang-orang yang terbaik Bukan orang yang karena tidak dapat pekerjaan yang Lain. Ya selama ini kan itu. Ya kalo kita mau misalnya" (in-dept interview/ P2-Q1-LN: 174-194)*

The last statement, state: Boosting the quality of education in general, should put the best students to become teachers such as in Finland, only the best 10 students who can be a teacher. So the teacher was supposed to be the best, not the person who was forced to become a teacher because it cannot find another job.

REFERENCES

Asmawi, M.R. 2005. Strategi meningkatkan lulusan bermutu di perguruan tinggi. *Jurnal makara, sosial humaniora*, vol. 9, no. 2: 66-71

Ayouch, K. 2007. *How Colleges Have Responded to Changes In Student Recruitment as Defined By Their Level of Web Definition on Their Official College Web Sites?*. New York: Institute of Technology Utica. https://docushare.sunyit.edu/dsweb/Get/Document-138748/KarenAyouchThesis.pdf

Brown, J.W. 2014. How IT Can Support Student Recruitment (and Why It Should)**?. *E**ducause Review online, published on monday, january 27, 2014 at* http://www.educause.edu/ero/article/how-it-can-support-student-recruitment-and-why-it-should

Hénard, F. 2010. Learning Our Lesson: Review Of Quality Teaching In Higher Education. https://www.oecd.org/edu/imhe/44058352.pdf

Martin, T.; Donoghue, T. & O'Neill, M. 2012. *Teachers and Teaching in Vocational Education and Training Institution*. New York: Nove science publishers, Inc.

Mizikaci, F. 2006 "A systems approach to program evaluation model for quality in higher education", Quality Assurance in Education, Vol. 14 Iss: 1, pp.37 – 53.

PEREIRA , M.A. C & Da-Silva, M.T. 2003. *A Key Question for Higher Education: Who are the customers?.* Proceedings of the 31st Annual Conference of the Production and Operations Management Society, POM-2003, April, 4-7, 2003, Atlanta, GE

Rena, R., & Suleman, A. 2010. Perception of Pre-servive Teachers Towards Teaching: A Case Study on The Eritrea Institut of Technology. *Review of Higher Education in Africa Journal, Vol. 2. No. 1* https://journal.lib.uoguelph.ca/index.php/rhea/issue/view/119

Sahlberg, P. 2010. *The Secret to Finland's Success: Educating Teachers*. Stanford: Stanford Center for Opportunity Policy in Education. https://edpolicy.stanford.edu/sites/default/files/publications/secret-finland%E2%80%99s-success-educating-teachers.pdf

Zamroni. 2000. *Paradigma Pendidikan Masa Depan*. Yogyakarta: Bigraf Publishing.

The Effect of Learning Method Field Trip Vs Inquiry to Concept Training Local History

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Abstract: The low value of the students in the course of local history into their own motivation for researchers to conduct more in-depth research to find the right solution in improving the quality and results of students. The problem in this study is whether there are differences in understanding the concept of local history students are taught using methods of field trip and inquiry learning? The purpose of this study to determine differences in understanding the concept of local history between the group receiving field trip method and inquiry learning. This type of research is an quasi experimental research. This research was conducted at the Department of History Education Faculty of Teacher Training and Education University of Nusa Cendana Kupang. The population of this study were all students of History Education FKIP Undana, with a sample of 70 students fifth semester where 35 students in grade A taught using teaching field trip methods and 35 students in the grade B taught using methods of inquiry learning. Purposive sampling is cluster random sampling technique. Analysis of data using one way ANOVA technique of two-lane analysis is the prerequisite test Normality test with significant Lilliefors corection method of Kolmogorov-Smirnov Test and Test of Homogeneity with Test F. The results of data analysis showed that there is a difference between teaching of field trip methods and inquiry to the learning outcomes of local history with Calculate F = 27.113, $p = 0.000 < 0, 05$. It can be concluded that there is influence between the learning method of inquiry versus field trip to the results learn local history.

Keywords: teaching methods field trip, inquiry, understanding of the concept of local history.

Local history can increase curiosity and the ability to make observations on the historic sites are located where students get an education, to train memory and perspective on life and the environment, as well as train the ability in solving problems that occur in everyday life. Local history as a science in the social science group has been included in the curriculum of higher education as a subject taught at the higher education level. Educational value of teaching local history is to provide knowledge and understanding of convincing to that study with regard to existence itself, the existence of culture in the environment, and the interrelations and human interaction with the culture of the place of his life. Thus, people will understand more about the values of relationship between man and his fellow man, man and culture on the environment, and the relationship between the natural factors with other natural factors. Through that process, eventually people will realize the value of his relationship with God the Creator (Sumaatmadja, 1997).

In order for this important educational value ingrained in the students, then the learning process required appropriate learning methods in order to enable learners to understand and apply the content of local historical materials in their lives. The learning method is expected to be used in study of local history is not just a lecture teaching methods that are more oriented to lecturers / learners, but also the method of direct learning-oriented learners in this case the student. With the method of direct learning the expected learners are given the opportunity to

immerse themselves in defining the concepts of local history and the ability to observe the environment associated with learning problems who want solved. However, in classroom practice in general educators still embrace the learning paradigm centered on the learner rather than the learner where the learning that takes place more in the nature transmitting the information even slipped on the "news book" which only involves the ability to think critically low, memorize (Joni, 2008). Consistent with that view, Winkel (2004) explains that the learners are still found to be more proficient learners when more and more to know the facts. This view would interpret learn as many facts to memorize activities. In a pattern of this kind of learning, learners or lecturers tend to be more transfer of facts or concepts without learners interpret or enshrined in the concepts being taught. The learning method is called as conventional teaching methods, which according to Wahab (2009: 94), the learner only requires students to provide answers by simply recalling what they had heard, read, or watch.

The success of a learner (student) in understanding the learning material can not be separated from the learning method applied by the learner. The learning result is all the effects that can be used as an indicator of the value of learning method under different conditions (Reigeluth, 1983; Degeng, 1997) and the results of this study are influenced by learning methods are applied (Moore, 2005; Degeng, 1997). Efforts to improve the quality of teaching local history was major in history education is a task that needs to be done by the learner (Lecturer). Learner is an important component to quality improvement of learning. Learner is a central factor in implementing the learning in the classroom. Poor understanding of this concept due to the applied learning method does not empower learners in the learning activities. The learning method that matches this procedure is a method of learning field trip. The learning method applied field trip is very important to train the critical learners and how they work together in searching and finding data and information based on problems studies. However, this method requires the ability learner (lecturer) in doing so, because the learning process is rather lengthy and requires considerable time, so that learning is less productive if conducted without a mature plan. Sagala (2010: 214) states that the field trip is a cruise conducted by the students to complete a certain learning experience and an integral part of the school curriculum. While Asmani (2010: 150) says that the field trip is a way of teaching carried out by inviting students to a place or object outside of school to learn or investigate something, like reviewing a shoe factory, a car repair shop, general store, and so forth. In practice, the field trip learning methods can be used to introduce a new concept of unknown students and reinforce the picture given in the classroom. Such statements Kisiel (2006: 8), "Field trip may serve as an introduction to a new concept or provide experiences that reinforce ideas Introduced in the classroom".

Roestiyah (2001: 85) says that the teaching methods field trip is a way of teaching that is done by taking students to a place or a particular object outside the campus to study or investigate something like reviewing a shoe factory, a car workshop, stores, farms, plantations, and playground and so on. This does not mean that the field trip learning methods cannot be implemented in the teaching and learning activities in the classroom, but what is needed is well prepared learning steps or syntax that is easy to implement, so that the desired learning objectives can be achieved. Learning can be said to work well if the results are durable and can be used practically in everyday life by children who learn (Sumaatmadja, 1997).

Studies of learning by using a field trip may be mentioned here that Meagan, 2011; Pearls and Hertien, 2015; Stoddard, 2009; Dwi Setyaningsih 2010 has shown that an increase in the ability of learners to ask, formulate hypotheses, presenting the results, and also an improved understanding of the concepts and learning acquisition. Based on this fact, there should be efforts to improve the quality of education, especially the quality of teaching in classes conducted by the learner (lecturer) in order to improve their understanding of science concepts

that lead to the achievement of optimal learning results and the formation of a scientific attitude. Therefore, the researchers raised the issue of the quality of learning is titled "Influence of teaching methods (field trip versus inquiry) to understanding of the concept of history in the course of local history.

Problem

Based on the background of the problems mentioned above, can be formulated research problems "if there are differences of understanding the concept of local history students are taught using methods of field trip and inquiry learning?

Purposes

Generally, this study aims to examine the influence of methods of learning and achievement motivation on learning outcomes in the course of local history education students fifth semesters. In detail, the purpose of the study to determine differences in understanding the concept of local history students between the group receiving method of field trip and inquiry learning.

Methods

This research was conducted at the Department of History Education Faculty of Teacher Training and Education University of Nusa Cendana Kupang using quasi-experimental methods. The population of this study were all students of History Education FKIP Undana, the study subjects were 70 students fifth semester, where 35 students (grade A) teaching methods for field trips and 35 students (grade B) using the method of inquiry learning. Purposive sampling is cluster random sampling technique. Analysis of the data using is One Way Anova technique with that analysis prerequisite test Normality test with significant Lilliefors correction method of Kolmogorov-Smirnov Test and Test of Homogeneity with Test F.

Result

The average pre-test for the experimental class taught using learning methods field trip of 83.31 and a standard deviation of 4.72, while the pre-test results to the control class with methods of inquiry learning gained an average of 76.08 and a standard deviation of 5, 13. This means that the average difference in the two groups was not significant. The average post achievement test students taught using learning methods field trip at 87.67, with a standard deviation of 5.06. While the average post test results of student learning is taught using methods of inquiry learning of 80.05, and a standard deviation of 4.65

Pre-test learning outcomes for groups that use methods of learning field trips and groups using inquiry learning method has a probability value greater than 0.05 (0.826 > 0.05). This indicates that the pre-test student learning outcomes for the two groups with normal distribution. As for the post data test understanding of the concept of local history after treatment showed that the learning outcomes for the two groups are also normally distributed, because the significance value (0.217) greater than 0.05. To test the homogeneity of unknown significance value lavene's test at 0.127. If the significance value is compared with a significance level of 0.05 matrix variants for the experimental group with a field trip learning methods, and the control group with inquiry learning methods are the same or homogeneous.

Test test assumptions or prerequisites that have been described, obtained that the number of assumptions required for the testing of hypotheses have been met. Thus further analysis feasible. For more details refer to the table below.

ANOVA					
Pos Tes					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	936.229	1	936.229	27.113	.000
Within Groups	2348.057	68	34.530		
Total	3284.286	69			

In this study, the first thing to be investigated is the difference of the application method and inquiry learning field trip to the learning outcomes of students. From the table it can be seen that influence student learning outcomes that will be subjected to treatment (field trip learning methods and methods of inquiry learning) is the same. It can be seen from the value of F for each statistical test scored 27.113 with p value or significance of 0.00. The significance value is less than the significance level used is 5% or 0.05. This shows that there are differences in learning outcomes of students taught using field trip learning methods and learning outcomes of students taught using methods of inquiry learning.

Discussion

Based on test results obtained descriptive statistics that the average achievement of students taught by using learning methods field trip better than the students who are taught by the method of inquiry learning. It is possible that the improvement of student learning outcomes triggered by a field trip learning method that in its implementation always observing the principles and karakteristi field trip. Through the principle of the filed trip focused on the learning ability of students in the rediscovery (Reinvention) values of history. The process of rediscovery of historical values is packaged in the student worksheet (MFIs). Context is developed in accordance with the characteristics or the syntax field trip learning methods. Eric Powell (in Shakil, Faizi, and Hafeez, 2011) says that the field trip is very important for students (college students) to have an opportunity explore historical places and different social institutions. Teachers (lecturers) should provide the opportunity for students (college students) to visit a new place, meeting new people, and see and understand a lot of new things. In line with these opinions, Aggarwal, J.C. (2008) says that the learning field trip very helpful teachers (lecturers) to make explanations, linking concept accurately, mengitepretasi and appreciation as well as allowing teachers (lecturers) implementing the learning becomes more concentration, effective, fun, inspiring, meaningful and expressive. Thus, it can be said that the learning field trips are useful in complementing three in the learning process, such as motivation, an explanation and simulation. Shakil, Faizi, & Hafeez, (2011) says that the learning field trip is an incredible way to make students happy to subjects (subjects). It can allow students (students) see and experience directly so as to increase the motivation of underachievement. Thus it can be said that the difference in student learning outcomes in this study are influenced by the accuracy in the implementation of learning by using teaching methods of field trip.

This result is consistent and reinforces the results of previous studies conducted Amosa, Ogunlade, & Atobatele (2014), by comparing the learning methods and expository field trip, they concluded that the teaching methods field trip had a better effect on student learning outcomes. This is because the teaching methods field trip will always help learners to acquire, retain and make the abstract idea becomes real. Stoddard (2009), Joseph (2006) concluded that

students who are taught by teaching methods for field trips have different learning outcomes with students taught using conventional methods in teaching social sciences; Suwoto (2008), which shows that there is increased and the difference in learning outcomes teaching methods field trip.

Appropriate learning methods to achieve the learning objectives in the subject of history (local history) is a method of learning field trip where local history courses require students to recognize the historical evidence through direct observation to the field. It is as said by Krepel and Duvall (1981) says that "to be a school or class trip with an educational intent, in which students interact with the setting, displays, and exhibits to gain an experiential connection to the ideas, concepts, and subject matter". Sthepens (2001) states that Field trip learning through an assignment, activity, investigation, or experience that takes place outside of the physical classroom or student's home. Inquiry Activities involves the exploration of a single question or questions through experiments, reading, discussion, or accessing prior knowledge".

Students are more interested in the topic of the material provided if subjected directly to objects discussed or explained by the lecturer. Results of research Davidson et al (2010); DeWitt & Hohenstein (2010) indicates that the field trip learning method can benefit the improvement of science learning ability of students by giving them direct experience, direct contact with the real object, and perform simulations become more interesting topics. In addition to the students direct experience of the object described by the lecturer, the lecturer's ability to apply the learning method of this very important field trip. Lecturers need to integrate the concept with direct observation of the object described. This is done so that students understand and have a sense of the values that they acquired in the classroom. In line with the ability of lecturers in applying learning methods field trip, Cynthia Rau Rieger (2010) in his research indicates that teachers should be encouraged to integrate the teaching methods field trip or activity outside the classroom in implementing the science curriculum because it can arouse and encourage students in learning science in the days to come.

The learning method of field trip and inquiry is more emphasis on the three domains of learning, namely cognitive, affective and psychomotor. This is in line with what was stated Kirschenbaun (1995: 24) that aspect citizenhip education includes: knowledge, appreciation, critical thinking skills, communication skills, cooperation skills, and conflict resolution skils. These aspects are further stated Kirschenbaum in its implementation required a comprehensive approach that includes medeling), facilities and the development of skills (skills development).

The learning method and inquiry field trip is in accordance with the principles of dialogical learning-critical, direct experience (direct experiences) collaborative, and cooperative. This learning method refers to a number of basic principles of learning. Basic learning principles in question are learning principles of active students (student active learning, group learning cooperative, and learning participatory. In addition, the learning method is one of the changes the mindset of teacher centered towards student centered. The methods learning field trip and inquiry is a study designed to help learners (students) understand the theory in depth through an understanding of learning particle-empirical. the learning method is based learning problems that can be a program so as to encourage increased competition, responsibility, participation learners, learning and impacting assess public policies (public policy), ventured to participate in activities between them, between schools, and community members.

Some research indicates that the field trip guided inquiry and provides a positive impact in the learning process. Research conducted by Koksal and Berberoqlu (2012) states that guided inquiry can improve science process skills, understanding of scientific concepts and attitudes of students. Mahgoub and Alawat (2014) to find out about the effect of a field trip to the students' creative thinking skills and practice in art education, indicates that a trip to the natural

and industrial sites can help students develop creativity and practice in art education. Furthermore, research Behrendt & Franklin (2014) showed that the learning field trip can make students happy, improve students' learning ability and motivation. Of the opinion of the experts and the results of previous research, this study also proves that there are differences in learning outcomes of students taught using methods of field trip and a method of inquiry. Based learning field trip whose purpose is to develop and apply the skills that are important that problem-solving skills by studying alone or working group and obtain a broad knowledge. Learners have a role as inspirational to raise the potential and abilities of students as learners. Field trip learning methods to improve learning outcomes of students, in this case has meaning can increase student participation. Field trip learning method emphasizes the mastery of inquiry skills to overcome the problem, so that students are trained to think, solve problems and become independent learners. In addition to a field trip learning methods, the method of learning that can improve critical thinking skills in problem solving is a method of inquiry learning. Inquiry learning method is a model of student-centered learning. , Students are directed to the learning objectives to be able to master a skill and ability in accordance with the competencies targeted. Inquiry method in the learning process of students positioned in challenging conditions to hone skills in scientific reasoning and knowledge in previously belonged to discover something new independently or to find solutions to the problems encountered. With this method of inquiry learning students are in the competitive environment in completing tasks to get the job as well - good from another person or from the other groups. Students in the learning process more find yourself something new to him then he will further improve motivation in looking for something related to new things he knew, because the more knowledge he get himself he felt honored that he could find something the new before everyone else finds.

These results indicate that all variables affect the improvement of student learning outcomes, and therefore learning in history education, faculty need to optimize the application of appropriate learning methods, attention achievement motivation of students, because each showed a strong influence on the achievement of learning outcomes understanding the concept of local history.

Conclusion

Based on the results of data analysis and discussion, it was concluded that the learning method (field trip and inquiry) significant effect on student learning outcomes. Learning outcomes of students majoring in history education in the subject area history NTT (local) students of the experimental group (taught using instructional methods field trip) is higher than on learning outcomes for students who are taught using inquiry learning. Results of student learning using the learning field trip contributes to better student learning outcomes of the learning outcomes of students who are taught using inquiry learning. It can be seen from the average acquisition both learning methods. From the average results of this study and is evidenced by a further test showed that learning methods field trip more influence on student learning outcomes in the history of inquiry learning method

References

Aggarwal, J.C. 2008. *Principles and methods and techniques of teaching*. Vikas Publishing House Pvt Ltd.

Amosa, O. and Atobatele. 2014. Effect of Field Trip On Students' Academic Performance in Basic Technology in Ilorin Metropolis, Nigeria. *Malaysian Online Journal of Educational Technology Volume* 3, Issue 2. On July 22, 2016 the date of access.

Asmani, J.M. 2010. *Tips to Master Inspirational, Creative and Innovative*. Yogyakarta: DIVA Press.

Aydin, F., and Coskun, M., 2011. Secondary School Students' "achievement motivation" towards geography lessons. *Archives of Applied Sciences Research*, 3 (2) 121-134.

Cynthia, R.R. 2010. *Effective Lesson Planning: Field Trips In The Science Curriculum*. Thesis: B.S., Louisiana State University, August 2010.

Davidson, S.K., Passmore, et al. 2010. Learning zoo on field trips: The interaction of the agendas and practices of students, teachers, and zoo educators.*Science Education* 94 (1): 122-141.

Degeng, I.N.S. 1993. *Handbook of educational technology: cognitive theory applied in instructional design*. Jakarta: Project Development Joint Inter-University Centre Facilities / IUC (XVII World Bank).

Degeng, I.N.S. 1997. *Teaching methods, organize the content model elaboration*. Malang: The Malang Teachers' Training College.

DeWitt, J. and J. Hohenstein 2010. School trips and classroom lessons: An investigation into teacher-student talk in two settings. *Journal of Research in Science Teaching* 47 (4): 454-473.

E. A. Koksal and G. Berberoqlu. 2012. "The Effect of Guided Inquiry Instruction on 6th Grade Turkish Students Achievement, Science Process Skills, and Attitudes Toward Science", *International Journal of Science Education*.

Joni, T.R. 2008. *Resureksi professional education of teachers*. Malang: LP3 UM Horizon Indonesia

Kisiel, J. (2006). *More than lions and tigers and bears - Creating meaningful field trip lessons. Science Activities*, 43 (2), 7-10.

Kirschenbaum, H. 1995. *100 ways to Enhance values and morality in schools and youth settings*. Massachusetts: Allyn & Bacon

Krepel, W. J., & Durral, C. R. 1981. *Field trips: A guideline for planning and conducting educational experiences*. Washington, DC: National Science Teachers Association.

Marc Behrendt and Teresa Franklin. 2014. A Review of Research on School Field Trips and Their Value in Education. *International Journal of Environmental & Science Ed International Journal of Environmental & Science Education* (2014), 9, 235-245.

Meagan, C. L. 2011. *Connecting Field Trip And Classroom Learning: Evaluating The Utility Of A Museum-Based Framework In An Environmental Education Context*. A Thesis In the College of Natural Resources University Of Wisconsin. Stevens Point, Wisconsin.

Mery Noviyanti.2011. *Journal of Education*, Volume 12, Number 2, September 2011, 80-88

Moore, K.D. 2005. Effective instructional metodees: from theory to practice. thousand oaks, CA: Sage Publications, Inc.

Mutiara Z. & Hertien K. S. 2015. Application of Guided Inquiry Learning Model Through Event Field Trip to Bangka Botanical Garden (BBG) To Improve Students Creative Thinking Skills. *Proceedings of the National Symposium on Innovation and Learning of Science* 2015 (snips 2015) 8 and June 9, 2015, Bandung, Indonesia

Ratna Haryani and Tairas, M.M. 2014. *Journal of Psychology, Education and Development*, Vol 3, No. 01, April.

Reigeluth, M. R. 1983. *Instructional-design theories and models: an overview of Reviews their current status*. Hillsdale NJ: Lowrence-Erlboun Associates.

Roestiyah N.K. 2001. *Teaching and Learning Methods*. Jakarta: Rineka Reserved.

Shakil A.F., Faizi, W.N., And Hafeez, S. 2011. The Need And Importance Of Field Trips At Higher Level In Karachi, Pakistan. *International Journal of Academic Research in Business and Social Sciences June* (2011) Vol. 2, No. 1

Setyaningsih, D. 2010. *Application of Field Trip Method to Improve Writing Ability Poetry in Class VIIB SMP Bhineka work Boyolali Year 2009/2010*. Thesis: UNS.

Stephens, Andrew.2001. *The Effects of Field work on Student Achievement and Motivation in Science Education*. Action Research Thesis. California State University, Northridge

Stoddard, J. (2009). Toward a virtual field trip models for the social studies. *Contemporary Issues in Technology and Teacher Education,* 9 (4), 412-438.

Sumaatmadja, Nursid. 1997. *Methodology of teaching geography*. Jakarta: Earth Literacy.

Susanti, Lidia, 2014. *The effect of the learning method (solving the direct learning) and achievement motivation on learning outcomes of intellectual skills of high school biology class X student dissertation*. Malang: The Malang State University.

Suwoto. 2008. *Folklore Tower, Mosque and Tomb of Sunan Kudus As Enrichment Learning Materials History (Case Study in Madrasah Aliyah NU Banat Kudus)*. Thesis. Prodi History Education University Graduate Program of March.

Syaiful Sagala. 2010. *Concept and Importance of Learning*. Bandung: Alfabeta. Wahab, A. A. 2009. *Methods and models of teaching social science (IPS)*. Bandung: Alfabeta

Winkel, W.S. 2004. *Teaching Psychology*. Jakarta: PT. Gramedia.

Joseph, A. 2006. Effect of field trip method of teaching on students' performance in Social Studies. *Ilorin Journal of Education*, 2, 7-17.

Y.M. Mahgoub and A.A. Alawat. 2014. The Impact of Filed Trips students on Creative Thinking and Practices in Art Education. *Journal of American Science*

The Effect of Guided Inquiry Learning Method VS Free Inquiry Against Learning Outcomes

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Abstract: This research is motivated by the lack of use of various methods in learning the basics of accounting which resulted in low student results. Issues that will be examined in this study is whether there are differences in student learning outcomes using guided inquiry learning methods and the methods of free inquiry learning? With the goal of his research which is to determine differences in learning outcomes of students who are taught using guided inquiry learning and free inquiry. Method of this research is a quasi-experimental. The experiment was conducted at the Department of Economic Education Faculty of Teacher Training and Education University of Nusa Cendana the population of all students of Economic Education FKIP Undana, and subject to the 70 students of the first semester, with 40 students in the grade A as an experimental class teaching methods guided inquiry and 30 students in the grade B as the control class using free inquiry learning methods. Purposive sampling is cluster random sampling technique. Data were analyzed using one-way ANOVA technique with the prerequisite test analysis is the normality and homogeneity test. The results of data analysis showed that there are differences in student learning outcomes using guided inquiry learning and free inquiry with F count = 21.352, p = 0.004 <0.05, for a value of p <0.05, it can be concluded that there are differences in guided inquiry learning methods vs. free inquiry against student results.

Keywords: guided inquiry learning methods, free inquiry, learning outcomes

The learning method is expected to be used in learning the basics of accounting not only the method of direct learning / expository more oriented to lecturers, but also the indirect method of learning-oriented students. With the indirect method of learning expected of students are given the opportunity to develop critical thinking skills in defining the concepts of basic accounting and the ability to observe the environment associated with learning problems who want solved.

However, the reality in the classroom practice in general educators still embrace the learning paradigm centered on the lecturer is not in students where learning takes place more in the nature transmitting the information even slipped on the "news book" which only involves the ability to think critically low, memorize (Joni, 2008). Consistent with that view, Winkel (2004) explains that the learners (teacher / lecturer) still believes that students will be more clever when more and more to know the facts. This view would interpret learn as many facts to memorize activities. In a pattern of this kind of learning, learners tend to be more transfer of facts or concepts without students interpret or construct the concepts being taught. The learning method is called as the expository method, which according to Wahab (2009: 94) that is expository method, the teacher only requires students to provide answers by simply recalling what they had heard, read, or watch. Efforts to improve the quality of basics learning of accounting at school is a task that needs to be done by the learner. Learner is an important component to quality improvement of learning. Learner is a central factor in implementing the learning in the classroom. In the hands of learners who are professional, creative and innovative

learning process will go well, otherwise if learners are not professional in the line of duty will affect deploy learning inferior and in time will affect the poor results of student learning about the concepts of basic accounting, Student results decreased due to the lack of application of learning methods in economic education majors FKIP Undana less empowering students in learning activities.

Basically the implementation of learning was undertaken learners are learning with more conventional teaching methods directly. This is not in accordance with the principles of learning method which states that not all learning method is suitable for all purposes and circumstances (Sanjaya, 2011). Therefore, the learner is expected to choose a method suitable to the circumstances. In the implementation of classroom learning, lecturer in accounting basics are still predominantly use conventional teaching methods in this method of direct learning or teaching methods that give freedom to the students to be creative based on his ideas without direction or a clear indication of the lecturer. Direct instructional methods according Hamruni (2011: 73) is a learning method that emphasizes the verbal process of delivering material from a teacher (lecturer) to a group of students (student) with the intention that students (students) can master the subject matter optimally. Similar opinion was expressed Killen (1998) named this expository method in terms of direct instruction method (direct instruction). Expository method is effective for determining information or build skills step by step, so that the advantages of this method is easy to plan and use, but it has a major drawback in developing capabilities, processes and attitudes necessary for critical thinking and interpersonal relationships as well as the study group (Hamruni , 2011). In addition to learning dominated learning methods expository, state in organizing education according Setyosari (2009) is the educational process in schools tends to increasingly ignore the element of educating and education as the substitution of the activity was more emphasis on aspects that are "exercises sharpen the brain ". Educational activities should integrate the dimensions of cognitive, affective and psychomotor been overlooked and more emphasis on aspects of cognitive training alone. While learning provides critical thinking exercises (critical thinking) and social interaction (social interaction) only get a portion of the time very little because the teacher only busy with routine tasks to quickly finish the curriculum which they are responsible.

Based on this fact, there should be efforts to improve the quality of education, especially the quality of teaching in classes conducted by the learner (lecturer) in order to improve their understanding of science concepts that lead to the achievement of optimal learning results and the formation of a scientific attitude. Therefore, the researchers raised the issue of the quality of learning is titled "Influence of free guided inquiry learning methods of inquiry are non-smoking versus the learning outcomes of students in the subject of accounting basics first semester of economic education majors Faculty of Teacher Training and Education University of Nusa Cendana Kupang.

Problem

Based on the background of the above problems, it can be formulated research problem, namely whether there are differences in student learning outcomes using guided inquiry learning methods and free inquiry learning method?

Purposes

Generally, this study aimed to examine the effect of teaching methods to the learning outcomes of students in the subject of accounting basics first semester of economic education majors Faculty of Teacher Training and Education University of Nusa Cendana Kupang. In

detail, the purpose of the study to determine differences in student learning outcomes between groups that receive guided inquiry method and the group that received free inquiry method.

Methods

This research was conducted at the Department of Economics of Education Faculty of Teacher Training and Education University of Nusa Cendana Kupang Academyc Year 2015/2016 using a quasi-experimental methods to study the entire student population on Economic Education Faculty of Teacher Training and Education University of Nusa Cendana Kupang and research subjects were 70 students of the first semester, with 40 students in the grade A as a experiments class using guided inquiry learning method and 30 students in the grade B as a control class using by the method of free inquiry learning. Purposive sampling is cluster random sampling technique. The collection of data was using questionnaires and tests of learning outcomes. Analysis of data using one way Anova technique the prerequisite test analysis is the normality test using significant Lilliefors corection of Kolmogorov-Smirnov Test and Test of Homogeneity with Test F.

Result

Before giving the actions in each group, researchers conducted a pre-test to determine the ability of elementary students. Obtained an average pretest for experimental class taught using guided inquiry learning methods of 50.83 with a standard deviation of 14.651, while the result of the pre-test to control classes taught using methods of free inquiry learning gained an average of 50.22 and a standard deviation of 15.706. It can be concluded that the difference in the average pre-test student results are not very significant.

Description of data is a picture of the data obtained to support the discussion of research results. Data after treatment posttest load data for guided inquiry method of learning and free inquiry learning methods. Students' test data which will be described consists of a data posttest. Posttest is a test that is given to the two groups after the treatment carried out. This test aims to determine student results will understand of basic accounting concepts after treatment. Here is a test post data acquisition descriptive learning outcomes either by using guided inquiry learning method or by using free inquiry learning methods. The average posttest student learning outcomes are taught using guided inquiry learning methods of 67.00, with a standard deviation of 10.80 and the average value of post test results of student learning is taught using the method of free inquiry learning 63.33, with a standard deviation of 15.58. If the average value of posttests results of this study in comparison with the results of pre-test then there is an increase in the average obtained by the students taught using guided inquiry learning methods and free inquiry learning methods.

Data analysis performed in this study to elaborate score learning outcomes based guided inquiry learning method versus free inquiry learning methods to the learning outcomes of students in each - each group to determine the effectiveness (influence) learning method. After determining the effect of teaching methods, it will be followed by one way ANOVA statistical analysis of the two groups to carry out two different test groups. However, before testing the hypothesis first will be tested for normality and homogeneity test where the test is the assumption that must be met before data analysis.

Testing normality of the data in this study was using the Kolmogorov-Smirnov test. Pre achievement test for the experimental group using guided inquiry learning method and the control group using the method of free inquiry learning have value or significance probability greater than 0.05 (0.999> 0.05). These results indicate that pre-test results of student learning

to the experimental group and the control group with normal distribution. The data post test results of student learning to the experimental group and the control group with normal distribution, because the significance value (0.351) greater than 0.05. Furthermore, the data will be analyzed to determine homogeneity of variance both for the experimental group or the control group. Test of homogeneity of variance in the experimental group with guided inquiry learning method and the control group by the method of free inquiry learning in terms of learning outcomes. To test the homogeneity statistic known Lavene value of 8.77 with a significance of 0.104. The significance value is compared with a significance level of 0.05, than 0.104 > 0.05. Thus H0 is accepted or matrix variants for the experimental group with guided inquiry learning methods, and the control group with free inquiry learning methods are the same or homogeneous.

Hypothesis testing is a step or procedure to determine whether the proposed hypothesis is accepted or rejected. Test assumptions or prerequisites that have been described, obtained that the number of assumptions required for the testing of hypotheses have been met. Thus further analysis feasible. For more details refer to the table below.

ANOVA					
Student learning outcomes					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	230.581	1	230.581	21.352	.004
Within Groups	11595.432	68	170.521		
Total	11826.013	69			

In this study, the first thing to be investigated is the effect of the application of the method of guided inquiry learning and free inquiry to the learning outcomes of students. Limits are used to determine whether there is any effect of applying a learning method seen from the thoroughness of students in learning by using guided inquiry learning methods and the methods of free inquiry learning to improve student results. From the table it can be seen that the value of F count by 21, 352 or significance with p value of 0.004. The significance value is less than the significance level used is 5% or 0.05. This shows that there are differences in learning outcomes of students taught using guided inquiry learning methods and learning outcomes of students taught using free inquiry learning methods.

Discussion

The results of data analysis, both of descriptive analysis and statistical tests showed that there were significant differences learning outcome of students taught using learning method guided inquiry to contribute better to the students of the Department of Economic Education course on the basics of accounting when compared with the results of students learn was using free inquiry learning methods. Based on test results was obtained descriptive statistics that the average achievement of students taught using guided inquiry learning method is better than the students who are taught with methods of free inquiry learning. It is possible that the improvement of student learning outcomes triggered by the guided inquiry learning methods in the implementation, always observing the principles and characteristic guided inquiry. Through the principle of guided inquiry learning focused on the ability of students in the rediscovery (Reinvention) educational values accounting fundamentals and can foster an attitude or think critically about the problems encountered. The process of rediscovery of educational values and critical thinking are packed in the student worksheet (MFIs). Context is developed in accordance with the characteristics or syntax guided inquiry learning methods. According to

Sund & Trowbridge (1973: 63), guided inquiry learning methods, teachers provide guidance or instructions are spacious enough to students. Teachers prepare the formulation of the problem as well as tools and materials. Investigation procedures are designed with the teachers and students, and then students make observations to obtain data and test hypotheses. Data obtained from observations, then analyzed to make conclusions through group discussion. Kuhlthau (2007: 6) explains that guided inquiry used to (1) study that prepare students for lifelong learning, (2) integrate with the content being studied, (3) to transmit the concept to obtain information, (4) using a variety of learning resources, (5) students actually perform the steps of learning from planning to final product, (6) connect directly between what is learned to the real world of students, (7) makes student learning communities that work together, (8) students and teachers collaborate, and (9) is process-oriented and results. With this method, students carry out an investigation based on the issues that have been well-prepared teachers, and selection steps are determined by the student investigation. Thus it can be said that the difference in student learning outcomes in this study are influenced by the accuracy in the implementation of learning by using guided inquiry learning methods.

This result is consistent and reinforces the results of previous research results are consistent with the results of research conducted by Marheni, et al. (2014), Agile (2012), Muhammad, et al. (2015). Marheni (2014) concluded that there is a difference in student learning outcomes using guided inquiry learning methods and the use of free inquiry learning methods. Agile (2012) showed that there are significant differences the result of understanding the concept and science process skills among students with the model group and the group of students guided inquiry learning model directly. Results of research Mohammed (2015) shows that there is influence between guided inquiry learning and free inquiry modified on learning achievement. However, these results contradict research Mudalara (2012) which concluded that the learning outcomes of students taught using free inquiry learning method is higher compared to using conventional teaching methods.

Appropriate learning methods achieves the goal of learning in subjects accounting basics is necessary to use in order to achieve the desired learning by learners and learners. This is in line with expert opinion on inquiry learning. Kuhlthau (2007), describes that the inquiry is a learning approach where students discover, use a variation of resources and ideas to better understand, an issue, topic or issue. According to Sund & Trowbridge (1973: 62) built on the basis of inquiry learning discovery, because a student must use discovery capabilities and other capabilities in learning. Sanjaya (2011: 196) defines the method of inquiry learning is a series of learning activities that emphasize critical thinking and analytical processes to seek and find you on issue that is questionable. This indicates that learners not only answer questions but also investigate, exploration, looking, asking questions, researching, and studying. Inquiry does not stand alone but together with the interest, the challenge for students to connect the curriculum with the real world. Many experts discuss social science inquiry learning as Jarolimek (1977), Barth and Shermis (1978), Sunaryo (1989), Saripudin (1989). However, a more comprehensive explanation of the inquiry as proposed by Jarolimek (in Sumaatmadja, 1984: 30) that "the major goal of inquiry-oreinted teaching is to develop in pupils Reviews those attitudes and skills that will enable them to be independent problems solvers. This involves more than simply knowing where to go to get needed information. It requires an attitude of curiosity, the ability to analyze a problem, the ability to the make and test "hunches" (hypotheses), and the ability to use information in validating Conclusions. Inquiry always involves a search for information that is related problem, such problem being in part generated by the pupils Themselves. Thus, understanding the inquiry is not just limited to the inquiry or examination; it covers all the processes of research, curiosity, analysis, come to the conclusion about things inspected or investigated.

Guided inquiry method of learning and free inquiry is in accordance with the principles of dialogical learning-critical, direct experience (direct experiences) collaborative, and cooperative. This learning method refers to a number of basic principles of learning. Basic learning principles in question are learning principles of active students (student active learning), group learning cooperative, and learning participatory. In addition, the learning method is one of the changes the mindset of teacher centered towards student centered. The methods learning were guided inquiry and inquiry-free is a lesson designed to help learners (students) understand the theory in depth through an understanding of learning patric-empirical. the learning method is based learning problems that can be a program approach in order to encourage increased competition, responsibility, participation learners, learning and impacts assess public policies (public policy), ventured to participate in activities between them, between schools, and community members.

Guided inquiry based learning has the objective to develop and apply the skills that are important that problem-solving skills by studying alone or teamwork and obtain extensive knowledge and develop creativity and critical thinking of learners. Learners have a role as inspirational to raise the potential and abilities of students as learners. Through the development of these skills students are expected to be able to solve the problems faced by their environment well. Guided inquiry learning method can improve student learning outcomes, in this case has meaning can increase student participation. Guided inquiry learning method emphasizes the mastery of inquiry skills to overcome the problem, so that students are trained to think, solve problems and become independent learners. In addition to guided inquiry learning methods, the method of learning that can improve critical thinking skills in problem solving is free inquiry learning methods. Free inquiry learning method is a model of student centered learning. Students are directed to the learning objectives to be able to master a skill and ability in accordance with the competencies targeted. Free inquiry method in the learning process of students positioned in challenging conditions to hone skills in scientific reasoning and knowledge in previously belonged to discover something new independently or to find solutions to the problems encountered. With the method of free inquiry learning students are in the competitive environment in completing tasks to get the job as well as good from another person or from the other groups. Students in the learning process more find yourself something new to him then he will further improve motivation in looking for something related to new things he knew, because the more knowledge he get himself he felt honored that he could find something the new before everyone else finds.

The results of this study indicate that all variables have an influence on the improvement of student learning outcomes, and therefore the study on economic education, lecturers need to optimize the application of appropriate learning methods for each indicate a strong influence on the learning achievement of students in basic accounting subjects.

Conclusion

Based on the results of hypothesis testing and discussion can be concluded that there is influence between student learning outcomes using guided inquiry learning methods versus free inquiry of learning the basics of accounting majors FKIP Undana economic education. In more detail, the data of this research also support the conclusion that there are significant differences in learning outcomes between groups of students treated guided inquiry learning methods and student groups treated with free inquiry learning methods.

References

Barth & Shermis. 1978. Reflective Thought, Critical Thinking. [On line]. Available: http://www.indiana.edu/~eric_rec/ieo/digests/d143.html. downloadable dated May 15, 2016.

Degeng, I.N.S. 1993. Handbook of educational technology: cognitive theory applied in instructional design. Jakarta: Project Development Joint Inter-University Centre Facilities / IUC (XVII World Bank).

Hamruni. 2011. The learning method. Yogyakarta: Insan Madani.

Jarolimek, J. 1977. Social studies in elementary education, (7th ed). New York: Macmillan Company Pubishing

Joni, T.R. 2008. Resureksi professional education of teachers. Malang: LP3 UM Horizon Indonesia

Killen, Roy, 1998. Effective teaching metodees: lessons from research and practice, second edition. Australia: Social Science Press.

Kuhlthau, C.C. 2007. Guided inquiry: learningin the 21 St century. US. Library of Congress cataloging in. Publication of data. http://www.google.co.id/?gws_rd=cr&ei=kFS6U9f-FNG/uAS3xoIg. accessed on July 7, 2014.

Marheni, N.P., Muderawan, I.W., and Tika, I.N. 2014. Comparative Study of Guided Inquiry Learning Model and Free Inquiry Learning Model on the Result of Learning and Science Process Skills Students In Science Learning SMP. e-Journal Ganesha Education University Graduate Program: Program IPA. Accessed on May 15, 2016

Mudalara, I.P. 2012. Effect of Enquiry Learning Model Non Against scientific results. Thesis. (Not published) Singaraja: Undiksha. Learning Chemistry Class XII IPA SMA Negeri Gianyar Seen From Attitude

Mohammed, A., Baskoro, A.P., &, Widha, S. 2015. Effects of Guided Inquiry Learning and Inquiry Learning Achievement Against Non Modified Seen From Critical Thinking And Learning Discipline Class X Mia Sma Negeri 8 Surakarta in the academic year 2014/2015. Journal inquiry. ISSN: 2252-7893, Vol 4, No. 3, 2015 (pp 127-135) http://jurnal.fkip.uns.ac.id/index.php/sains. accessed July 25, 2016.

Sanjaya, Wina, 2011. The standard method of learning-oriented education process. Jakarta: Kencana Prenada Media.

Saripudin, U.W. 1989. The concept and issues of social science teaching in secondary schools. Jakarta: Ministry of Education and Culture Directorate General of Higher Education, Institute of Education Development Project Personnel.

Setyosari, Punaji, H. 2009. "Learning collaboration: a foundation for developing social skills, respect and responsibility" Inauguration .Pidato office technology Professor of Science Education at the Faculty of Education, University of poor countries, dated May 14, 2009

Sumaatmadja, Nursid. 1997. Methodology of teaching geography. Jakarta: Earth Literacy.

Sunaryo.1989. Methods of teaching and learning in science social embeddedness. Jakarta: Ministry of Education and Culture Directorate General of Higher Education, Institute of Education Development Project Personnel.

Sund, R.B. & Trowbridge, L.W. 1973. Teaching science by inquiry in the secondary school. Ohio: Bell & Howel Company

Tangkas, I.M. 2012. Effect of Guided Inquiry Learning Model Implementation Of Capabilities Concept Training and Science Process Skills Student Class X SMAN 3 Amlapura. Thesis. Science Education Program, Graduate School of Education University of Ganesha, accessed on July 12, 2016

Wahab, A.A. 2009. Methods and models of teaching social science (IPS). Bandung: Alfabeta
Winkel, W.S. 2004. Teaching Psychology. Jakarta: PT. Gramedia

The Tendencies Object, Colors, and Themes in the Children's Drawing in Dharma Wanita Pamotan Kindergarten Dampit Sub District Malang Regency

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Abstract: The purpose of this study was to describe the objects, colors, and themes drawn by boys and girls. The results showed (1) the tendency of the main objects in the boys' drawing were the category of the environment and the nature (34%), while the main objects of the girls' drawing that is category of nature (58%). (2) The supporting objects tendency in the boys' drawing were the category of environment (80%), while the supporting objects in the girls' drawing were the surroundings category (70%). (3) The color tendency of the main object in the boys' drawing was blue (44%), while the color in the girls' drawing was brown (41%). (4) The colors tendency of the supporting objects in the boys' drawing was blue, brown, and yellow (52%), while the color in the girls' drawing was green (76%). (5) The theme tendency in the boys' drawing was the environment (41%), while the theme in the girls' drawing was the natural scenery (47%).

Keywords: children's drawing, objects, colors, themes, dharma wanita pamotan, kindergarten

In the pattern of the growth and development of early childhood have aspect physical, cognitive, socio-emotional, creativity, language, and communi-cation with the appropriate special stages which are traversed by the child. The period of early childhood is an important period that needs to get the handling as early as possible. Elizabeth B. Hurlock, (1980:13) argues that the age of three to six years of age is a period of sensitive period in children, i.e. a period where a specific function needs to be stimulated, directed so not hampered its development.

According to Howard Gardner in the Yus (2011: 19) in addition, during the period of 4 to 6 years is the period where increased development of intelligence from 50% to 80%, this increase can occur if the process of stimulation and stimulant. Children become more sensitive in receive different stimuli and knowledge in developing the whole child's potential. During this period, the child takes the condition corresponding to the growth and development in order to be achieved optimally.

In the aspect of the creativity of children at an early age have an expression in plain and full of spontaneous. Early childhood here can be a simple drawing and coloring, as well as creating something with a variety of media, the child moves follow objects in the environment such as plants and animals (Yus 2011: 31). This is in accordance with the Hurlock (1980:109) on early childhood age have a tendency to imitate, but despite this tendency looks strong but children showed creativity in play during childhood compared to other periods of his life, with this reason psychologists also named this period as the age of creative.

In early childhood education notes in growth and physical development, language, art, and communications, in accordance with the uniqueness and stages of development undertaken by early childhood. Institutions that play a role in early childhood education is an institution of

kindergarten or PAUD. Institutions that play a role here is institutions kindergarten Dharma Wanita Pamotan.

This research aims to continue the research ever done before. But it is different in the sampling research, place of sampling, and the specification of the sex of the child. Sex boys tend to be geared to drawing that is masculine gender while girls tend to be directed at the object of the feminine form. This can be exposed without the teacher's learning pattern by directing the pattern drawing male students and female students tend to be distinguished. Institutions that play a role here is institutions kindergarten Pamotan Dharma Wanita is located in the village of Pamotan, Dampit Malang.

METHOD

This research uses descriptive quantitative approach such asgive a clear draw as to the circumstances of the object of research. Source of data on research this is drawled of the B level kindergarten students Dharma Wanita Pamotan Dampit Sub District Malang Regency. In the study population of Kindergarten class B as much as 44 students (male: 27 students, women: 17 students). According to Sugiyono (2012:117) population is a generalization of an object or subject that has certain qualities and characteristics set by the researchers to learn and then drawn the conclusion. The reason for the selection of class B because the drawing started to be identified. In this study using a sampling of saturated, because of relatively small population and researchers make generalities with minuscule errors. Saturated samples according to Sugiyono (2012:124) is a technique of collecting samples when members of a population is used as a sample, this is due to the number of population is relatively small, less than 30 persons or research who want generalities with minuscule errors. The research instrument used to collect data in this research is a method of observation and documentation. Meanwhile the collection of data retrieved observation and documentation. Observation methods used to identify verbal data emerging from the drawing of the child in accordance with the guidelines of the check-list. Meanwhile the method documentation is the source of the information of a draw of the child, so that the methods used in the form of documentation. Data analysis is done sequentially i.e. tabulated, preparation, and application data in accordance with research approaches.

RESULTS AND DISCUSSION

The Tendency of Objects Drawn Boys and Drawn Girls

Based on the results of research show there is a variation in the use of the main object and the supporting object on the drawing of the child. In a variation of the main object drawn boys have a tendency choose the category of the surroundings and the natural environment (34%). Whereas in the main object drawn girls have a tendency chooses the category of natural environment (58%). In a variation of the supporting objects drawn boys have a tendency choose the category of natural environment (80%). Whereas, in the supporting objects drawn girls have a tendency choose the category of the surrounding environment (70%).

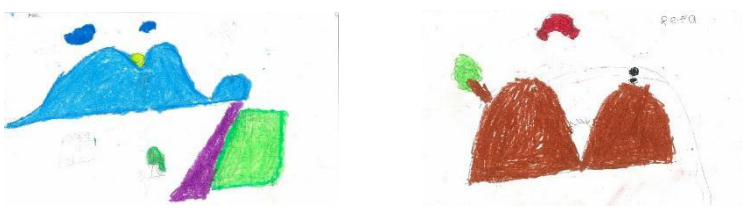

Figure 1.1 the drawing with the main object

(Source: documentation of researchers)

In the selection of objects that each child has the distinction made in accordance with the character of each child. These differences are due to differences in the pattern of development of each child in the experience of the sense of vision. This is supported by the statement Read in translation Soetjipto (1973:67) that the more a child has talent better vision than other possible once it has the speed of developments in the drawing. In the arrest of vision the child has different speeds so that the child drawing results with each other is different. Such as a child who has speed in catching objects, objects drawn children look more detailed than parts per parts. For the natural environment and surroundings have a tendency here can also be influenced by the environment of the region of residence which has the contours of the mountains. In addition to the selection of the environment can be affected because every day children are in the surrounding environment (object, home school, Board slide, and so on).

Figure 1.2 a drawing that has a supporting object
(Source: documentation of researchers)

Judging from the results of the kindergarten drawing of Dharma Wanita Pamotan, drawing of the child have a tendency of being on the stage of development of the period chart and several on pre-Islamic chart. It also supported according to Soebandi (2012:9) interesting traits on the drawing of the child in areas such as color chart pre human face can be red, green or other colors. In addition, according to Soebandi (2010:10) pre this chart usually occurs at the level of kindergarten and primary education. Whereas at the time of the chart, according to Soebandi (2012:12) drawing of the child has the consciousness to make the line of departure or the base line and the concept on the drawing starts to seem clear.

A result objects drawn boys and girls have drawn different objects. The difference is the main object and object supporters drawn boys and girls drawn object that this is due to external and internal factors. External conditions are influenced by outside parties such as the teacher's observations against the art world, social environment, family and playmates. While the internal conditions are influenced by the mental condition of the child and the child's biological or body development. As for the process of drawing is also the result of observation of objects that exist in the environment around the dwelling or environment that attracted the attention of the child. Like in school, teachers can direct the selection of objects drawn students, this leads to differences in the selection of objects drawn boys and girls drawn. In objects drawn boys tend to choose a masculine object while the object is drawn girls tend to choose feminine objects.

According to Myers (2012:221) between boys and girls basically have sex almost identical but the existence of a culture that there is a neighborhood school and family environment can affect the pattern of the views, attitudes, and behaviors. On the results of the tendency of the main object and supporters also have linkages with the tendency themes. Such as on the main object drawn tendency categories environment, then on the theme reflected drawn boys have a tendency of the surrounding environment.

The Tendency of Color Drawn Boys and Drawn Girls

In an activity to draw the child has an interest in color, this results in each of the drawing children have many variations of colors used. Variations in color like the color of the primary, secondary, tertiary, and neutral are often used, such as red, blue, yellow, Orange, green, purple, black, white, grey and pink. According to Dharmaprawira (2002:32) in interpret results of artistic expression, the children, aged 3 to 5 years, the experts concluded that the bright colors tend to skew or shows at emotional.

On results drawn boys and girls have drawn the main object and object supporters. This is having an impact in the results of the colors used. Boys in the color selection of the main objects have a tendency to use blue color (44%) while the girls in the color selection of the main objects have a tendency to use brown color (41%).

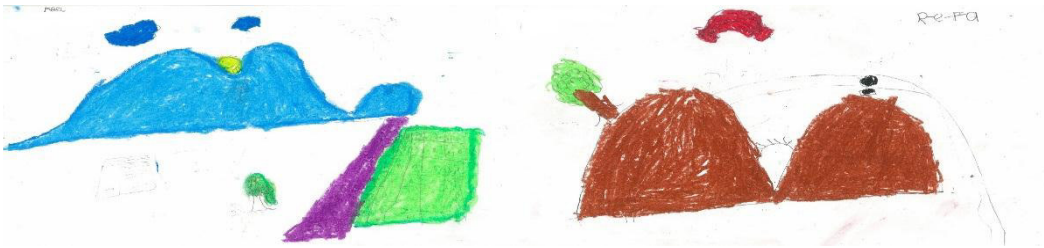

Figure 1.3 drawing that have the color of the main object
(Source: documentation of researchers)

The blue color is a color that is identical to the male; this is evident by the presence of both the research done before. According to research by Debbie j. Pope, Hannah Butler, and Pamela Quilter with results of a study of Emotional Understanding and Color-Emotion Associations in Children Aged 7-8 Years and on A Research Study in Color Preferences of School Children by the Porto Breed and S.E. Katz cited from Darmaprawira (2002:31). The research on both the color blue is a color often favored and chosen because of an interest in color, emotion, and personality or character. According to Richa Febrina (2012) the color blue has a quiet, personal character, trustworthy, have a very high loyalty and serious but sometimes relaxed in response to a problem. Whereas the main object in color drawn girls have a tendency of brown color. According to Freud in Dharmaprawira (2002:36) Brown has a stubborn character, careful, thorough, and thoroughly. While according to Sanyoto (2002:4) Brown has the immediacy of a heart, polite, sensible, thoughtful, respectful, and efficient.

To complement the impression draws in a drawing not only needed color to the main object but also on the color of the object. Color object supporters drawn boys have a tendency choose the color blue, Brown, and yellow (52%). While proponents of object color drawn girls has a tendency of choosing the color green (76%). According to Sanyoto (2002:40) Green has a fresh, young character, living, growing, and some are almost the same color blue. While the yellow color according to Sanyoto (2002:38) features a character, friendly, joyful and supel.

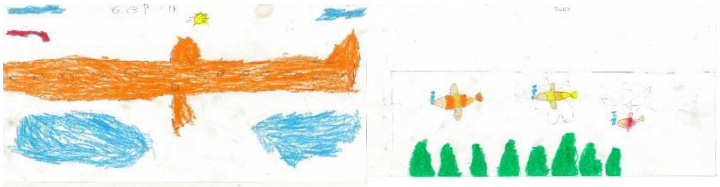

Figure 1.4 drawing that has a color supporting objects
(Source: documentation of researchers)

The existence of a difference in color here can be caused by the construction of the customs of the surrounding environment and the home environment. This is in line, according to Myers (2012:221) between boys and girls basically have sex almost identical but the existence of a culture that there is a neighborhood school and family environment can affect the pattern of the views, attitudes, and behaviors.

The Tendency of Themes Drawn Boys and Drawn Girls

The main use of object, the object, the color of the main supporter and proponent of the object produced a color theme or content within the drawing. Themes often used children have the environmental and personal closeness to children, like my house, my school, and my family. In this study the children have a variation of the theme of natural scenery, the imagination, the environment around the child.

Themes drawn boys have a tendency illustrating the theme of the environment (41%) while girls have a tendency illustrating scenery theme (47%). This natural scenery on the theme of children tend to describe the views related to nature, such as the mountain environment, marine environment, lakes, flora, fauna and others. While the theme of the environment, the children described the home environment and the school environment.

Figure 1.5 the drawing that has themes
(Source: Documentation of researchers)

Tendency of theme scenery particularly the environmental views of the mountain are due to environmental conditions or areas of residence of the child. The area of residence of the child has the contour of the land. In addition to environmental conditions or areas of child, family environment can shape the pattern of drawing objects such as children's home or school environment. According to the Suryani in Garha (2011:89) by children who are considered to be successful is if it precedes work theme of the children so that his work could represent expressions of his feelings. On the results of the tendency of this theme has an interest with the tendency of the object to be rendered. Such themes are used boys have a tendency of environmental categories around, then on the main object drawn boys have a tendency of surrounding categories anyway.

The results of this research is also supported by previous research i.e. research done Indah Yuni Suryani (2011) theme that has a tendency to use early childhood or kindergarten students are generally in the form of the natural landscape.

CONCLUSION

The boys have a tendency to draw in the surrounding environment and the natural environment (34%), while girls have a tendency to draw in the category of natural environment (58%). In a variation of the supporting objects drawn boys have a tendency choose the category

of natural environment (80%), while the supporting objects drawn girls have a tendency choose the category of the surrounding environment (70%).

The tendency of the main object was drawn boys choose a blue color (44%), while the drawn girls choose brown color (41%). In a variation of the color object supporters drawn male students have a tendency in blue, Brown, yellow (52%), while the drawn girls have a tendency to use the color green (76%).

The tendency themes drawn boys and girls have drawn the distinction. The tendency of drawn boys that is the theme of environment (41%), whereas themes drawn girls that is the theme of natural scenery (47%).

Suggestion

Suggestion for teachers in kindergarten of Dharma Wanita Pamotan should better understand and explore objects, colors, themes and drawing of boys and girls. For parents should give guidance, referrals and facility to his son in a work of art. It is hoped the presence of advanced research such as the tendency of children's drawing of urban areas and rural areas, the tendency of the drawing of the child in terms of character and his intelligence. In addition, the expected presence of similar researches also on a higher level, such as in elementary, junior high, high school, and the SLB.

REFERENCES

Darmaprawira, S. 2002. WARNA teori dan kreativitas penggunaannya. Bandung: Penerbit ITB.

Frebrina, R. 2012. Mengenal Karakter (Pribadi) seseorang lewat warna favoritnya, (online) (http://informasitips.com/mengenal-karakter-pribadi-seseorang-lewat-warna-favoritnya).

Garha, O, et. al. 1981. *Pendidikan Kesenian Seni Rupa*. Program Spesialisasi II untuk SPG. Jakarta: Depdikbud.

Hurlock, B.E.1980. *Psikologi Perkembangan*. Jakarta: Erlangga

Myers, G.D. 2012. *Psikologi Sosial (social psychology)*. Terjemahan Aliya Tusyani dkk. Jakarta:Salemba Humanika.

Popo, J.D., Butler, H., Qualter, P. 2012. *Emotional Understanding and Color-Emotion Associations in Children Aged 7-8 Years.* Child Development Research. Hindawi Publishing Corporation. (http://www.hindawi.com/ journals/cdr/2012/975670).

Read, H. 1975. *Seni Rupa sebagai Alat Pendidikan*. Terjemahan oleh Sutjipto, Katjik. Kartomihardjo, Suseno. Malang: Sub Proyek Penulisan Buku Pelajaran IKIP MALANG.

Sanyoto, E.S. 2005. Dasar-dasar Tatat Rupa dan Desain (Nirmana). Yogyakarta: CV ARTI BUMI INTARAN

Soebandi, B. 2012. *Mengenal Periodisasi Perkembangan Seni Rupa Anak-Anak,* (online) (http ://file .upi. edu /Direktori/ FPBS / _(Materi) .pdf).

Sugiyono. 2012. *Metode Penelitian Pendidikan*. Bandung. Alfabeta.

Suryani, I.Y. 2011. *Struktur Visual Gambar Anak TK Laboratorium Universitas Negeri Malang*. Skripsi tidak diterbitkan. Malang: Universitas Negeri Malang.

Yus, A. 2011. *Penilaian Perkembangan Belajar Anak Taman Kanak-kanak.* Jakarta. Kencana Prenada Media Group.

The Effect of SBI Interest Rate and Inflation on The Value of The Bond Issuance in Indonesia Stock Exchange

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Abstract: The emission obligation in Indonesia Stock Exchange is influenced by SBI interest rate and inflation. SBI is a certificate of Bank Indonesia that denominated in Rupiah which was published by Bank Indonesia as a short timed debt recognition. Inflation is the increase in the price of goods and services in general where such goods and services is a basic requirement of society or the decline of the selling power of a country's currency. The sample used in this research are SBI interest rate, inflation and the emission obligations in 2009-2013. Types of data used are secondary quantitative data monthly period of 2009-2013 which is obtained from the official website of Bank Indonesia and SEKI. Data analysis technique used is multiple linear regressions. The results of this study are: (1) there is a negative and significant relationship of SBI interest rate on the emission obligations, (2) there is a positive and significant relationship of inflation on the value of emissions obligations, (3) there is a simultaneous relationship of SBI interest rate and inflation on the emission obligation.

Keywords: SBI interest rate, inflation, value of the bond issuance

The state budget deficit condition which happen every year let Indonesia thought hard in strengthening its national budget. One of solutions is done through the Indonesian government issued securities such as bonds. Bonds are debt securities medium-long term transferable deposits which contain a promise from the issuing party to pay compensation in the form of interest on a particular period and repayment of the principal debt at a predetermined time to the buyers of these bonds (BEI, accessed on February 10, 2014).

According to IBPA (Indonesia Bond Pricing Agency) Indonesia among the top five countries with the growth of the bond market denominated in the local currency of the most rapidly developing countries in East Asia in 2012. In a quarterly, the top five countries with the fastest growth in a row is Vietnam, Thailand, Indonesia, Singapore and the Philippines. However, the rate of growth of this market in year-on-year inflation fell to 8.6% in the second quarter of 2012 compared to 9.3% in the first quarter government bond market grew 5.5% in the second quarter of 2012 in year-on-year, down compared to 5.8% in the first quarter growth of the corporate bond market also fell to 15.2% in the second quarter compared to 16.7% in the first quarter.

Along with the improving market transactions in stocks and bonds, not as good as the growth of the BI Rate. As said by the Vice President of Indonesia, Boediono, Monday, November 25, 2013, stated that the government together with the central bank has no reason to raise the level of the benchmark interest rate or BI Rate (vivanews.com). If the Fed imposed a tightening of monetary stimulus, according to Boediono, liquidity withdrawal will occur in developing countries over the years, including Indonesia. Thus the benchmark rate should be increased in order to maintain the broader national interest. BI as the monetary sector managers will issue a policy to secure the position of Indonesia.

Based on Bank Indonesia Circular Letter No. 10/28 / DPM Bank Indonesia Certificate through an auction, it is mentioned that the SBI are securities in rupiah currency issued by Bank Indonesia in recognition of short-term debt. SBI offered through auction, the sale of SBI conducted by Bank Indonesia in the implementation of monetary policy. In doing so, Bank Indonesia conducts monetary control in various ways and one of them is with the SBI. When the amount of money circulating in the market is too high that is feared to increase inflation, Bank Indonesia SBI issuance with the purpose of absorbing the excess money in the market (contraction). Conversely, if the amount of money circulating in the market is very small, then Bank Indonesia to expand by lowering the interest rate and buy letters - securities to increase the amount of money in the market.

When Bank Indonesia uses interest rates as a monetary policy variable, control is straightforward. BI can affect the interest rate by open market operations. Open market operations such as those set forth in Bank Indonesia Circular Letter No. 10/28 / DPM issuance of Certificate of Bank Indonesia, the transaction activity in the money market conducted by Bank Indonesia with Banks and other parties for the purpose of monetary control. If Bank Indonesia raised interest rates, means the central bank to withdraw money from the market. So that bond prices will fall. Conversely, if Bank Indonesia lowered interest rates, means that BI offers money on the market. So, that bond prices will rise.

Rising interest rates lead to saving more attractive because it provides a higher interest rate. From the investor will sell the debt, they will transfer the results into savings bonds with a higher interest rate. As a result, the bond offering increased. Since bidding increases, the bonds will be offered at a discount so that bond prices will decline (Hartono, 2009). In contrast to the declining interest rate savings, investors will shift their savings into bonds with a higher interest rate. This resulted in increased demand for bonds. Because interest rates on bonds more attractive, the bonds will be offered at a premium so that bond prices will rise (Hartono, 2009).

In theory, it can be concluded that the bond price is negatively related to the interest rate (Hartono, 2009). This theory is consistent with the results of research Ichsan (2013) which stated that the SBI interest rate hikes adversely affect issuers because it will lower the price of the bonds in the market, and vice versa. Puspita (2011) also stated that the SBI interest rate has a negative influence on the price of the bond issuance. Decrease the amount of bond issuance would lead to lower emission values of bonds in the capital market. On the other hand, rising interest rates SBI will encourage investors to prefer to invest in a savings product. Therefore, the SBI interest rate hikes would lead to lower emission values of bonds in the capital market.

Inflation became one of the most feared risk of financial market participants because of the high inflation will depress investment returns. Inflation year-on-year in January 2014 at 8.22 percent so far from the expectations of market participants, even well above the interest rate. CPM released the inflation rate of 1.07 percent in January, 2014 (vivanews.com). It is caused by natural disasters, increase in LPG, extreme weather and transportation problems. The annual inflation rate in January 2014 against January last year of 8.22 percent. Inflation is a core component of the calendar year of 0.56 percent in January 2014.

The definition of inflation according to the Central Statistics Agency is the rising prices of goods and services in general in which goods and services are basic needs of society or a decline in purchasing power of a country's currency. Simply put, Bank Indonesia said inflation as rising prices - the prices in general and continuously. The price increase of one or two items alone cannot be called inflation unless the increase was widespread (or result in higher prices) on other goods. Indicators are often used to measure the rate of inflation is the Consumer Price Index (CPI). CPI changes over time shows the price movement of a package of goods and services consumed by society. Since July 2008, a package of goods and services in the CPI basket has been done on the basis of Cost of Living Survey (SBH) 2007 conducted by the

Central Statistics Agency (BPS). Then, the BPS will monitor the development of prices of goods and services on a monthly basis in several cities, in traditional and modern markets to some types of goods / services in each city.

Inflation as measured by the CPI in Indonesia are classified into seven groups of expenditure (based on the Classification of Individual Consumption by Purpose - COICOP), namely: (1) Foodstuffs Group; (2) Food, Beverages and Tobacco Group; (3) Real Estate Group; (4) Clothing Group; (5) Health Group; (6) Education and Sport Group; (7) Transportation and Communications Group.

Bank Indonesia explaining inflation arises because of the pressure from the supply side (cost push inflation), on the demand side (demand pull inflation), and from inflation expectations. Factors occurrence of cost push inflation can be caused by the depreciation of the exchange rate, the impact of inflation abroad, especially countries trading partners, increased commodity prices are regulated by the government (administered price), and going negative supply shocks caused by natural disasters and disruption of distribution.

In addition, Bank Indonesia also explain the causes of demand pull inflation occurs is high demand for goods and services relative to availability. In the macroeconomic context, this condition is illustrated by real output exceeds potential output or total demand (aggregate demand) is greater than the capacity of the economy. Meanwhile, the factor of inflation expectations are influenced by the behavior of the people and economic players using the inflation rate expectations in the decision of economic activities. The inflation expectations are more likely to be adaptive or forward looking. This is reflected in the behavior of price formation at the level of producers and traders, especially on the eve of the religious holidays (Eid, Christmas and New Year) and the national minimum wage (UMR). Despite the availability of goods in general is estimated to be sufficient in support of the increase in demand, but the price of goods and services at times of religious festivals increases higher than the supply-demand conditions. Similarly, when deciding on the minimum wage, traders were also increases the price of goods despite the wage increase is not very significant in driving increased demand.

In addition to issuing securities in the form of bonds to strengthen budgetary funds, Indonesia also received cash funds derived from emerging markets. Emerging markets consist of countries - countries which have the potential for rapid economic growth. Banks and institutions - US financial institutions who got the flow of funds from the Fed released them to gain an advantage by channeling funds to the emerging market countries. The Fed's policy of so-called quantitative easing (QE), the monetary policy used by central banks to stimulate the economy by buying bonds or other assets amount set from financial institutions without reference to interest rates (forum.kompas.com). It aims to increase the money supply to stimulate economic growth. The Fed is doing QE for the US financial crisis in 2008 due to subprime mortgage which is a term for a housing loan (mortgage) given to borrowers with poor credit history or do not have credit history at all, so it is classified as a credit at high risk (finance.detik.com).

QE I was held in late November 2008 to begin buying $ 600 billion to US $ 2.1 trillion in June 2010 consisting of bank debt, government bonds, and so forth. In November 2010 the Fed announced QE II by purchasing $ 600 billion of government bonds in the second quarter of 2011. QE III was announced on 13 September 2012, with purchases reaching US $ 85 billion per month. However, on December 18, 2013 The Fed formally made the decision to reduce the stimulus for the US economy has improved (fokus.kontan.co.id). In February 2014 stimulus original amount of US $ 85 billion down to US $ 65 billion per month (tempo.com). But the impact of tapering off has been felt by Indonesia since the beginning of 2014. According to the

Directorate General of Debt Management at the Finance Ministry of foreign capital outflow amounting to Rp1.45 trillion per January 28, 2014 (bisnis.com).

LITERATURE REVIEW

SBI Interest Rate

According to Bank Indonesia Circular Letter No. 10/28 / DPM on Bank Indonesia Certificate through an auction, it is mentioned that the SBI interest rate is securities in rupiah currency issued by Bank Indonesia in recognition of short-term debt. SBI interest rate is offered through auction, the sale of SBI interest rate is conducted by Bank Indonesia in the implementation of monetary policy.

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SBI interest rate is one of the mechanisms used by Bank Indonesia to control the stability of the Rupiah. By selling the SBI interest rate, Bank Indonesia can absorb excess money supply. The interest rate applicable on each sale of SBI interest rate is determined by market forces based on an auction system. Since its inception in July 2005, BI using Bank Indonesia interest rate mechanism, which announced the desired target of SBI interest rate interest rate for auction during the given period. BI rate is then used as a reference for market participants in the auctions.

Inflation

The definition of inflation according to the Central Statistics Agency is the rising prices of goods and services in general in which goods and services are basic needs of society or a decline in purchasing power of a country's currency. Simply put, Bank Indonesia stated that inflation as rising prices - the prices in general and continuously. Bank Indonesia explains that inflation arises because of the pressure from the supply side (cost push inflation), on the demand side (demand pull inflation), and from inflation expectations. Factors occurrence of cost push inflation can be caused by the depreciation of the exchange rate, the impact of inflation abroad, especially countries trading partners, increased commodity prices are regulated by the government (administered price), and going negative supply shocks caused by natural disasters and disruption of distribution.

In addition, Bank Indonesia also explains the causes of demand pull inflation occurs is high demand for goods and services relative to availability. In the macroeconomic context, this condition is illustrated by real output exceeds potential output or total demand (aggregate demand) is greater than the capacity of the economy. Meanwhile, the factor of inflation expectations are influenced by the behavior of the people and economic players using the inflation rate expectations in the decision of economic activities. The inflation expectations are more likely to be adaptive or forward looking. This is reflected in the behavior of price formation at the level of producers and traders, especially on the eve of the religious holidays (Eid, Christmas and New Year) and the national minimum wage (UMR). Despite the

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Value Bonds

According to the Indonesia Stock Exchange, Value bonds is medium-term securities debt or long-transferable deposits which contain a promise from the issuing party to pay compensation in the form of interest on a particular period and repayment of the principal debt at a predetermined time to the purchaser of the Value bondss. Value bonds issuance value itself is the amount of funds needed or borrowed by the company. According to Tandelilin (2010: 245) Value bondss are securities issued by a company that promises the holder a payment of money remains at a maturity date in the future along with periodic interest payments.

METHOD

The method used in this research is a quantitative method. The data used as a sample in this research is quantitative data secondary in the form of time series (time series) that is data SBI interest rates, inflation rates and the value of bonds issuance is restricted to the data end of every month during the observation period was between January 2009 until December 2013. The data is accessed through the official website and SEKI Bank Indonesia (The Indonesian Financial Statistics). Once data is collected, the data were analyzed using analysis techniques linear with SPSS for Windows 16.0. The researcher also test the hypothesis with T-test and F-test and then test the classical assumption.

RESULTS AND DISCUSSION

SBI Interest Rate

Based on the data obtained, the value of SBI interest rate fluctuated sharply in the period 2009 - 2013. In the year 2009 decreased every month. This can be seen in January SBI rate is in the highest position of 9.5% and continued to fall until the position of 6.46% in December. In 2010 the SBI interest rate does not fluctuate sharply. In the first half of 2011 the interest rate increased from 6.08% to 7.36%. However, in the second half of 2011 the interest rate decreased from 7.27% to 5.04%.

SBI interest rate reached the lowest value in February and March 2012 which is valued at 3.82%. After experiencing the lowest value, Bank Indonesia gradually raising interest rates SBI. In December 2013, SBI interest rate increased again to reach 7.22%.

Table 1: SBI Interest Rate Period 2009 – 2013

Month	SBI Interest Rate (%)				
	2009	2010	2011	2012	2013
January	9,50	6,45	6,08	4,88	4,84
February	8,74	6,40	6,70	3,82	4,86
March	8,31	6,27	6,72	3,82	4,87
April	7,59	6,20	7,18	3,92	4,89
May	7,25	6,30	7,36	4,24	5,02

June	6,95	6,20	7,36	4,32	5,27
July	6,71	6,34	7,27	4,46	5,52
August	6,58	6,63	6,77	4,54	5,86
September	6,48	6,64	6,28	4,67	6,95
October	6,49	6,37	5,77	4,75	6,97
November	6,47	6,42	5,22	4,77	7,22
December	6,46	6,26	5,04	4,80	7,22

Source: Financial Statistics Indonesia 2014

Based on Figure 2 can be seen that the SBI interest rate fluctuated sharply. From January 2009 to January 2011 there occurred a continuous decline. However, in April 2011, Bank Indonesia began to fix the interest rate of SBI and only lasted four months. After that the SBI interest rate has been going down until it reaches the lowest number in March 2012 in the amount of 3.82%. Post to decline, Bank Indonesia decided to fix by raising interest rates SBI little by little until the end of 2013 reached 7.22%.

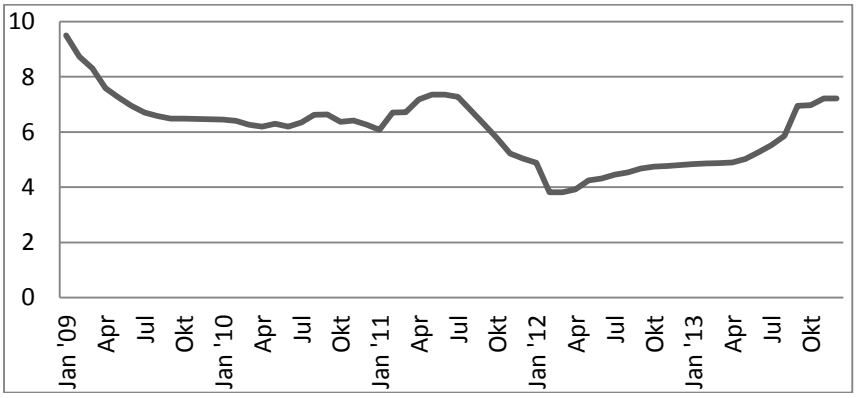

Figure 1: Graph SBI Interest Rate Period 2009 – 2013 (%)
Source: SEKI Data 2014 that have been processed

Inflation

The inflation data showed that the rate of inflation from the year 2009 - 2013 is a significant change. The highest inflation was in January 2009 amounted to 9.17%, while the lowest was in November 2009 by 2.41%. Year 2009 was a year in which there is a reduction enormous. In 2010 inflation began to rise again slowly until the month of December 2010 inflation rate of 6.96%. However, in 2011 inflation back down which occurred in February 2011 was 6.84%.

In February 2012, inflation is at 3.56%. This is because of the 66 CPI cities, 40 cities experienced inflation and 26 cities experienced deflation. Deflation caused abundant supply of red peppers and tomatoes that experienced price declines of up to 47% in some cities. Many cities experiencing deflation resulting in low levels of inflation in the month of February 2012.

Table 2: Inflation Period 2009 – 2013 (%)

Month	Inflation (%)				
	2009	2010	2011	2012	2013
January	9,17	3,72	7,02	3,65	4,57
February	8,60	3,81	6,84	3,56	5,31
March	7,92	3,83	6,65	3,97	5,90

April	7,31	3,91	6,16	4,50	5,57
May	6,04	4,16	5,98	4,45	5,47
Juny	3,65	5,65	5,54	4,53	5,90
July	2,71	6,22	4,61	4,56	8,61
August	2,75	6,44	4,79	4,58	8,79
September	2,83	5,80	4,61	4,31	8,40
October	2,57	5,67	4,42	4,61	8,32
November	2,41	6,33	4,15	4,32	8,37
December	2,78	6,96	3,79	4,30	8,38

Source : Bank Indonesia 2014

In the following month inflation experienced ups and downs until rebounded by 8.61% in July 2013. This is because the impact of rising fuel oil (BBM) in June 2013. When fuel went up in June inflation is only 5, 9%. However, in July increased to reach 8.61%. The increase in fuel causes the price - the price of food rises so that the community needed more money to meet their needs. Thus, the amount of money circulating in the community is increasing and causing high inflation.

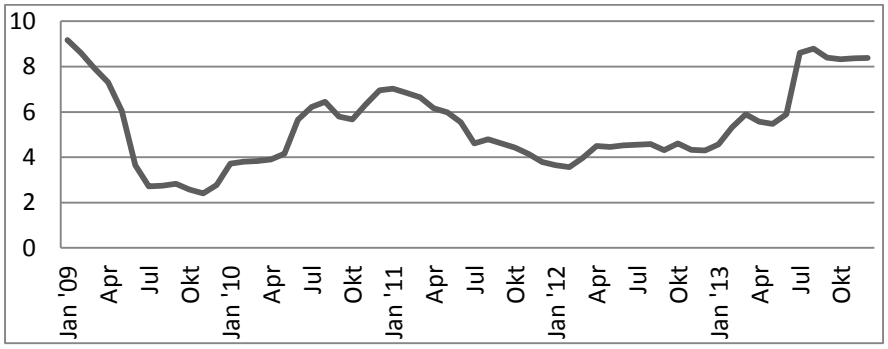

Figure 2: Graph Inflation Period 2009-2013 (%)
Source: BI Data 2014 that have been processed

Based on Figure 4, it can be seen that inflation has increased quite dramatically in the period 2009 - 2013. The sharp drop in inflation that occurred in 2009. The inflation rate at the beginning of 2009 amounted to 9.17% and decreased at the end of the year by 2.41%. Then begins to rise to a peak of 7.02% in January 2011. But inflation back down to the lowest point is 3.56% in February 2012. In the month - next month, the inflation rate has increased continuously until the month of December 2013 the rate of inflation amounted to 8.38%.

Value Bonds

Table 3: Value Issuance Period 2009-2013 (Trillion Rupiah)

Month	Value Bonds (Rp)				
	2009	2010	2011	2012	2013
January	148	179	216	262	329
February	148	179	221	269	336
March	149	183	222	269	348
April	150	183	226	273	348
May	154	186	228	287	355
Juny	162	187	242	302	372

July	163	187	242	303	372
August	163	187	243	305	372
September	165	187	245	307	374
October	165	201	246	314	376
November	165	208	248	315	380
December	175	215	261	329	385

Source: Financial Statistics Indonesia 2014

Based on the data obtained, the value of the bond issuance does not change significantly in the period 2009 - 2013. However, the value of the bond issuance shows the tendency is increasing from year to year. The highest emission values occurred in December 2013 amounting to Rp 385 trillion and the lowest in January 2009 amounted to Rp 148 trillion.

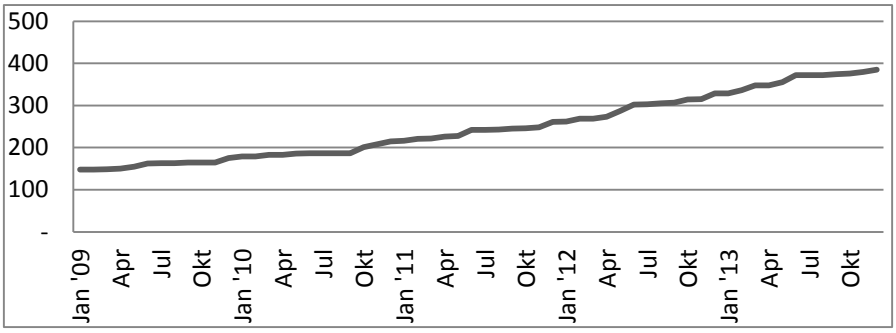

Figure 3: Graph Value Bonds Graph in Period 2009-2013
Source: Data SEKI 2014 that have been processed

During 2009 bond issuance value increased. This is evident from the increase in the rate of emissions at the beginning of the year amounted to Rp 148 trillion by year-end amounted to Rp 175 trillion. This increase was again the case in 2010 in which at the beginning of the emission value of Rp 179 trillion by year-end amounted to Rp 215 trillion. A similar increase occurred in 2011 where in January 2011 issuance value of Rp 216 trillion, up until December 2011 amounting to Rp 261 trillion. At year - next year emission values always rise up in December 2013 reach Rp 385 trillion.

Figure 6 shows graphically that in the period 2009-2013 bond issuance value was always increasing. Starting from the beginning of 2009 the value of Rp 148 trillion emissions continue to rise until the end of 2013 amounted to Rp 385 trillion. Increasing the amount of emissions per month is not high but is always increasing and not decreasing.

Effect of Interest Rates and Inflation to Value Bonds

Based on the results of analysis show that large regression coefficient SBI rate amounted to -51.051. This means SBI interest rate has a negative influence on the value of the bond issuance. If the interest rate of SBI rose 1%, then the value of the bond emission will decrease by 51.051 trillion rupiah. The analysis also shows the probability value Sig SBI rate is smaller than $\alpha = 0.05$. That is, the SBI interest rate has a significant effect on the value of the bond issuance. Based on the analysis, the SBI interest rate a significant negative effect on the value of the bond issuance in Indonesia Stock Exchange period 2009-2013.

The increase in the value of the bond issuance during the period 2009 - 2013 due to the SBI rate has decreased drastically. The weakening of the SBI interest rate resulted in investors

tend to buy products that bond interest rates are higher than deposit rates. The number of people who invest in bonds will increase the number of bond issues so that the value of the bond issuance will tend to rise. However, interest rates fell drastically SBI is not directly followed by a rise in the value of the bond issuance. Bond issuance value continues to increase but not as much as the decline in SBI rates. Despite the SBI interest rate hikes but issuers are still able to compete in providing a higher coupon, so the growth of the bond emissions continue to increase slowly. This suggests that the rise in SBI rates have a negative impact because it will lower the value of the bond issuance, and vice versa SBI interest rate cut will lead to increased bond issuance value.

The results of this study are consistent with the results of the study Edward (2007) which states that bond prices tend to be stable despite an increase in interest rates of SBI. This happens because the issuers - issuers that issued the bonds provide coupon rate is relatively large compared with the level of market interest rates prevailing at the time of emission.

Based on the results of analysis show that large regression coefficient inflation at 27.856. This means that inflation has a positive influence on the value of the bond issuance. If inflation rose by 1%, then the value of the bond issuance will be increased by 27.856 trillion rupiah. The analysis also showed inflation Sig probability value smaller than $\alpha = 0.05$. That is, inflation has a significant effect on the value of the bond issuance. Based on the analysis, inflation is positive and significant impact on the value of the bond issuance in Indonesia Stock Exchange period 2009-2013.

Inflation positive and significant impact on the value of the bond issuance because when interest rates and inflation reached the highest peak, the bond price is estimated to reach its lowest point, which would certainly be an opportunity for investors to invest mainly in bonds with long term with expectations of higher yields , After reaching the peak point, the interest rate will tend to fall, and a positive impact on the movement of bond prices, so investors are advised to maximize these conditions by investing in long term bonds.

The results of this study are consistent with the results of research Ichsan (2013) which states that inflation is positive and significant impact on the value of bonds. At current interest rates and inflation in the highest position, the investor expects that the movement of the bonds will increase in line with the decline in interest rates.

Based on the analysis, it can be seen that simultaneously the SBI interest rate and inflation significantly influence the value of the bond issuance in Indonesia Stock Exchange period 2009 - 2013. In terms of monetary policy, investment is more influenced by real interest rates and real interest rates are influenced by SBI rate. When the SBI interest rate higher then real interest rates will be high so that the public chose to save their money in banks rather than investing in bonds, and vice versa. So the relationship between the SBI rates indirectly affect the value of the bond issuance. So that when the SBI interest rate rise / fall, the value of the bond issuance does not respond directly increase or decrease it.

In this study, the result is that inflation is a significant effect on the value of the bond issuance. The inflation rate that occurred during the period 2009 - 2013 fluctuated sharply. But the value of the bond issuance remains elevated as investors expects that when inflation reached its highest point, then the interest rate will decrease. So the growth of the bond will be improved. The increase in inflation continues to rise in interest rates will affect the coupon will be given. How big rise in inflation and the impact of rising inflation on interest rates will be a concern for the company.

In the long-term effects, in addition to the SBI interest rate and inflation, there are other macroeconomic factors that are not mentioned in this study, but also affected investor to invest in the capital markets, especially bonds. Before buying a bond, an investor typically perform the analysis by comparing the market price and the intrinsic value of the bonds. Intrinsic price

of a bond can be calculated by knowing the inherent characteristics of these bonds as the coupon rate, residual maturity / maturity, the bond rating and the level of expected profit.

Besides, considering the intrinsic value of bonds, changes in macroeconomic factors are also important to consider. But these factors will not affect the bond immediately but slowly over the long term. When changes in economic factors that happens, investors will calculate their impact both positive and negative, and then make a decision to buy or sell the bonds in question. Estimates or forecasts future price of a bond can be done by knowing the amount - the amount of macroeconomic variables and trends in changes in the future as the value of the rupiah against the dollar, GDP (Gross Domestic Product), as well as other government policies.

CONCLUSION AND RECOMMENDATION

Based on the findings of research and discussion, the results can be summarized as follows: (1) there is a negative and significant impact among the SBI interest rate on the bond issuance value, (2) there is positive and significant correlation between inflation on the value of the bond issuance, (3) there is a simultaneous effect between the SBI interest rate and inflation on the value of the bond issuance.

Based on the above conclusions, the recommendation can be given in this study are as follows: (1) the issuer should pay attention to the SBI interest rate and inflation set by the government as a reference for the provision of interest on bonds that issuers and investors do not feel disadvantaged, (2) investor SBI should consider the interest rate set by the government and the inflation that occurred at the time when it will make investments in bonds.

REFERENCES

Badan Pusat Statistik. *Inflasi*. (Online), (http://bps.go.id/menutab.php?tabel=1&kat=2&id_subyek=03), accessed 10 February 2014.

Bank Indonesia. *Inflasi*. (Online), (www.bi.go.id), accessed 26 February 2014.

Bisnis. *Dampak Tapering Off, Capital Outflow di Pasar Obligasi Rp1,45 Triliun*. (Online). (http://m.bisnis.com/finansial/read/20140203/9/200810/dampak-tapering-off-capital-outflow-di-pasar-obligasi-rp145-triliun), accessed 24 March 2014.

Bursa Efek Indonesia. *Obligasi*. (Online), (http://www.idx.co.id/id-id/beranda/informasi/bagiinvestor/obligasi.aspx), accessed 10 February 2014.

Bursa Efek Indonesia. (Online), (http://www.idx.co.id), accessed 10 February 2014.

Detik Finance. *Kronologi dan Latar Belakang Krisis Finansial Global*. (Online). (http://finance.detik.com/read/2009/04/15/120601/1115753/5/2/kronologi-dan-latar-belakang-krisis-finansial-global), accessed 24 March 2014.

Edward. 2007. *"Analisis Faktor – Faktor Yang Berpengaruh Terhadap Perubahan Harga Obligasi"* tesis yang diterbitkan (http://eprints.undip.ac.id/17255/1/Edward.SS.pdf, accessed 10 February 2014). Semarang: Program Pasca Sarjana, Universitas Diponegoro.

Hartono, J. 2009. *Teori Portofolio dan Analisis Investasi*. Yogyakarta: BPFE.

IBPA (*Indonesia Bond Pricing Agency*). *Obligasi Indonesia Tumbuh Pesat*. (Online), (http://www.ibpa.co.id/News/ArsipBerita/tabid/126/EntryId/4428/Obligasi-Indonesia-Tumbuh-Pesat.aspx), accessed 10 February 2014.

Ichsan. 2013. Dampak BI *Rate*, Tingkat Suku Bunga, Nilai Tukar, Dan Inflasi Terhadap Nilai Obligasi Pemerintah. *Jurnal Keuangan dan Perbankan*, (Online), 17 (2): 310-322, (http://jurkubank.files.wordpress.com/2013/12/14-ichsan_suku-bunga-ok.pdf), accessed 27 February 2014.

Kamus Bisnis. *Definisi Sertifikat Bank Indonesia*. (Online), (http://kamusbisnis.com/arti/sertifikat-bank-indonesia/), accessed 27 February 2014.

Kompas. *Quantitative Easing: Mekanisme dan Dampaknya*. (Online). (http://forum.kompas.com/saham-valas/202373-quantitative-easing-mekanisme-dan-dampaknya.html), accessed 24 March 2014.

Kontan. *Apa itu Quantitative Easing? Apa itu Tapering?* (Online). (http://fokus.kontan.co.id/news/apa-itu-quantitative-easing-apa-itu-tapering), accessed 24 March 2014.

Nilasari, W.M.T. 2010. *Pengaruh Inflasi dan Tingkat Suku Bunga Bank Indonesia Terhadap Harga Obligasi Syariah yang Listing di BEI Pada Tahun 2008 - 2009*. Skripsi tidak diterbitkan. Malang: UM.

Puspita, W.A. 2011. *Analisis Pengaruh Suku Bunga SBI Terhadap Nilai Emisi Obligasi Baik Dalam Jangka Pendek Maupun Jangka Panjang Di Pasar Modal Indonesia Periode Tahun 2007 - 2009*. Skripsi tidak diterbitkan. Malang: FE UM.

Samsul, M. 2006. *Pasar Modal & Manajemen Portofolio*. Jakarta: Erlangga.

Sugiyono. 2012. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.

Surat Edaran BI No. 10/28/DPM. Bank Indonesia. (Online), (http://www.bi.go.id/id/peraturan/moneter/Documents/f70ab9ed44f0441bafb022dadbe6e0dcSE_102808.pdf), accessed 24 February 2014.

Tandelilin, E. 2010. *Portofolio dan Investasi Teori dan Aplikasi*. Yogyakarta: Kanisius.

Tempo. *Stimulus Amerika, Apa Dampak Buruk bagi Indonesia?* (Online). (http://www.tempo.co/read/news/2014/02/01/092550026/Stimulus-Amerika-Apa-Dampak-Buruk-bagi-Indonesia), accessed 24 March 2014.

Universitas Negeri Malang. 2010. *Pedoman Penulisan Karya Ilmiah: Skripsi, Tesis, Disertasi, Artikel, Makalah, Laporan Penelitian,* Edisi Kelima. Malang: Biro Administrasi Akademik, Perencanaan, dan Sistem Informasi bekerja sama dengan Penerbit Universitas Negeri Malang.

Vivanews. *BI Rate Naik Sebagai Persiapan Hadapi Akhir Masa Easy Money*. (Online). (http://bisnis.news.viva.co.id/news/read/461246-boediono--bi-rate-naik-sebagai-persiapan-hadapi-akhir-masa-easy-money), accessed 10 February 2014.

Vivenews. *Inflasi Januari 1,07 Persen, BI: Tidak Aneh*. (Online). (http://bisnis.news.viva.co.id/news/read/478645-inflasi-januari-1-07-persen--bi--tidak-aneh), accessed 24 March 2014.

Widarjono, A. 2009. *Ekonometrika*. Yogyakarta: Ekonisia.

Indonesian YouTube Video Clip for Teaching Character Values in English Classes in High Schools

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Abstract: In Indonesia, where English still has the status of a foreign language, many students see English as just one more subject to pass in order for them to proceed to the next level of education. In the current curriculum, the 2013 Curriculum, English, as are the other subjects, is given the "burden" of building the character values as mentioned in the 2nd Core Competence (*KI* 2). Some of the values are confidence, honesty, discipline, and responsibility. As is delineated in the Curriculum, the characters should be built through "indirect teaching"; based on that guidelines, the researcher then suggests the use of YouTube video clips about Indonesia, which has a two-fold function: to attract students' interest, and to inculcate noble characters in the students. Videos on "Wondeful Indonesia" and historical events can be very beneficial to teach English to secondary school students. This paper explores the practical ways to use YouTube clips in teaching several text types to secondary school students.

Keywords: character values, indirect teaching, YouTube video clips

In Indonesia, as in many other countries where English is a foreign language, I believe that most students feel that English is just another subject in their school curriculum which they have to pass in order to continue their studies to a higher level. English, therefore, is often seen as a difficult, uninteresting, subject. Teachers have tried various teaching techniques and strategies, often to no avail; students are still not engaged, and their grades are still below the passing grade. Those are two of the challenges faced by teachers of English, especially in Indonesia.

In the 2013 curriculum, teachers, besides planning and delivering the lessons and assessing students' achievements, are also required to build students' character or noble attitude. The character values which should be inculcated in the students are, among others, honesty, respect, politeness, caring, and citizenship (love of nation). Those values are abstract issues for students, especially in Junior High schools; hence it would be difficult for teachers to plant and maintain those characters in the students without clear explanations and examples. Furthermore, as is stated in the Decree of the Ministry of Education and Culture number 022 year 2016 on the standards of process of the 2013 Curriculum, those values should be inculcated in the students through indirect teaching. This makes it even harder for teachers, as indirect teaching means they should integrate the values in their lessons as well as show them to the students through concrete examples (the teacher should be an example for the students regarding the internalization and implementation of religious practices, as well as the practices of politeness, discipline, honesty, etc)

In the case of English lesson in Junior High Schools, character building should be integrated with all the text types that are taught, that is the transactional/interpersonal, specific functional, and functional texts. The transactional/interpersonal texts, are, among others, apologizing, complimenting, showing sympathy, etc. Specific functional texts, which used to be called short functional texts, cover materials such as announcements, advertisements, short

message, and brochures. The functional texts in Junior high school are Descriptive, Narrative, Recount, Report, and Procedure.

It is true that good character values exist in all text types of English; politeness, for instance, is apparent in the transactional text of asking for information ("**Excuse me**, **could you** tell me where I can buy some fresh fruit here?"). The bold-typed expressions are the ones showing politeness in English. However, showing good characters from lesson materials only, would, like any other materials, be boring for the students. It would be like learning *about* politeness (and any other character), and not actually internalizing the values to ultimately implement them, as is stated in the ministerial decree.

This paper addresses the issue by proposing some ways to inculcate good character values in the students through the media of YouTube videos. Many articles have been written on the use of YouTube video clips, but very few, if any, have discussed how the videos can assist teachers in building students' character. In this paper I will propose ways Indonesian videos can be used to build good characters in students, in English subject. Some examples of videos are described, and steps of using them in the classroom are proposed.

YOUTUBE VIDEOS

When we talk about authentic media for learning, youtube videos can be categorized as one. They are not developed for instructional purposes, nor are they graded according to some levels of students. Sherman (2003) states that using authentic videos can be motivating in their authenticity itself. Being able to understand and enjoy the real thing has its own "special thrill".

YouTube videos are mainly created for entertainment and news; however, as teachers we can adapt them to our lessons and add some exercises and comprehension questions, for instance. Sherman (2003) lists several uses of authentic videos for language teaching, as follows: a) for its own sake, where people can actually enjoy real products using real language, the same as reading English newspaper or magazines; b) for exercises in comprehending spoken language; c) as a model for language use; d) for learning about the culture of the people; e) as a stimulus or input, for writing or other projects or assignments; f) as a "moving picture book", a source of pictures or stories about places, people, and things.

A number of studies have been done concerning the use of YouTube videos for language learning (Watkins and Wilkins, 2011; Alimemaj, 2010, to name but a few). However, I have yet to find a study which deals with the use of YouTube videos in the teaching of more than language skills and components. In this paper, therefore, I am proposing the use of YouTube videos for character education in schools.

In line with the 2013 Curriculum currently implemented in Indonesian schools, character education and character building are now very important aspects in the education of Indonesian students. So much so that character education is allocated two core competences in the Curriculum: Spiritual competence (Core competence 1) and Social competence (Core competence 2). That fact led me to the topic of this paper, that is using YouTube video clips to teach character values in high schools.

In the case of Indonesian Curriculum, i.e the 2013 curriculum, there are 8 character values which should be instilled in the students. Those character values should be inculcated through indirect teaching by teachers of all subjects except Civics and Religion. In that case, teachers of English should also inculcate the character values through indirect teaching, which means 1) they should integrate the values within the topics they are teaching, and 2) they should build students' character through examples of good conduct by the teachers themselves.

YouTube videos or video clips are actually the perfect media for building good characters through indirect teaching. Through the videos students can learn about the values of respect,

honesty, confidence, love of nation, responsibility, etc.without the teacher preaching them. This paper, therefore, proposes some ways that teachers of English can use the YouTube videos or video clips to teach both the language and the character values.

CHARACTER EDUCATION

What is character education? Bialik et al.(2015) explain the aims of character education,which are, among others, to develop virtue "as the foundation of a purposeful, productive, and fulfilling life", and "to develop personal values and virtues for sustainable participation in a globalized world".

In Indonesian context, character education goes with the day-to-day lessons of every subject in the school, and becomes the responsibility of all teachers. For Civics and Religion lessons, the character education should be taught in a direct way, whereas for the other subjects, it should be given through inndirect instruction. Some proposed ways of how the character values can be instilled in the students are elaborated below.

USING INDONESIAN YOUTUBE VIDEO CLIPS

Indonesian electronic media nowadays are very rich in resources in the form of authentic videos, in all kinds of types, such as advertorial, videos about real lives, videos for tourism, etc. Many of the videos are presented/narrated in both Indonesian and English; and that makes it easier for teachers of English to select the ones which are appropriate for their students. I will present several examples of Indonesian YouTube videos that can be used both for teaching English and building students' character.

1. Wonderful Indonesia

   This series of videos present prominent tourism places in Indonesia, such as Yogyakarta, Bali, Malang, Toba Lake, and others. The most obvious use for this series of videos is to teach Descriptive texts; describing the beautiful places, their locations, their natural beauty, etc. Students can talk or write about the places using the text structure, social function, and language features of the descriptive text.

   Apart from the obvious uses, though, the English teacher can also use the Wonderful Indonesia videos to instill the character of respect, optimism, and love of nation. Here are the steps that can be taken:

   a. Ask students whether they like to travel to famous places in Indonesia; if so, where they like to go, and if not, why not.
   b. Ask them to mention what they can do when they visit those places, and how they feel when visiting them.
   c. Then ask them to work in groups; let them discuss these points: 1) what they think about Indonesia which has so many tourism places in every province, 2) what they can do as citizen to maintain the good condition of the tourism places, 3) what they think about the native people of those places, and their efforts to take care of them.
   d. Still in their groups, students should choose one tourism place and make a brochure about it; the teacher should help them in deciding what to include in the brochure, and the language they should use (the idioms, adjectives, style, etc.)
   e. Then they should present their brochure to the class and mount it on the classroom walls.
   f. Afterwards, individually they should write a paragraph, or an essay if they can do it, about the tourism place, and how they would keep the beauty of the place.

2. Famous people

The teacher can select some videos about Indonesian heroes or famous people, and prepare the activities that can make the students learn the English language as well as some good characters, while learning the Recount (and descriptive) text. Here are the steps:

a. Brainstorm the students about Indonesian heroes or famous people that they know; who they are and what they do/did.
b. Distribute a set of questions for the students, as a guide in watching the video. Let the students watch the video two or three times, while trying to answer all the questions
c. After the students have comprehended the contents of the video and answered the questions, ask them to discuss in groups the following things: 1) what they think of the person's act that made him/her famous, 2) what they think about the person, 3) if they were a friend of the person, what would they do to maintain the good name of their friend.
d. The students should then prepare a short speech about the hero/famous person. They should also show confidence in their presentation

3. Juvenile delinquents

This kind of video shows violence among youngsters, impolite behaviours towards older people, and gang fights. Unlike the previous kinds of videos, this type shows negative behaviours. While teaching the hortatory exposition (especially for Senior high School), report, or even recount texts, the teacher can:

a. ask the students about the various news of gang fights and student fights that are often on the news, as well as some violence which happens at sports events, at schools, and in many other places.
b. play the videos which show the negative acts and ask the students about their opinions. They should try to use English as much as they can, for examples "I think they are bad students", or "I don't agree with their actions"
c. after many opinions have been put forward, the teachers can then ask the students to work in pairs or small groups, and discuss some solutions to overcome the phenomenon of violence among the young generation.

CONCLUSION

Unlike the findings and recommendations of many studies which focus on the use of YouTube videos to teach language skills and components, this study proposes some ways in which YouTube videos can be used to teach not only language, but also to instill good characters in the students, as is recommended by the 2013 Curriculum in its Core competences 1 and 2. Teachers of English can put some varieties into their lessons, to teach English while at the same time build students' characters through indirect instruction.

REFERENCES

Alimemaj, Z. 2010. YouTube, language learning, and teaching techniques. In *AngloHigher* volume 2, issue 3, May 2010

Bialik, M., Bogan M., Fadel C. & Horvathova M. 2015. *Character education for the 21st century.* Center for Curriculum Redesign.

Peraturan Menteri Pendidikan dan Kebudayaan nomor 022 tahun 2016.(2016). Standar Isi Kurikulum 2013. Kementerian Pendidikan dan Kebudayaan

Sherman, J. 2003. *Using Authentic Video in the Language Classroom*. Cambridge: Cambridge University Press

Parenting Economy in The Household of Dayak Kapuas Hulu Community

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Abstract: This article is intended to determine how the parenting economy performed in the household of Dayak Kapuas Hulu Community in West Kalimantan. The present study employs qualitative approach, which is more natural, descriptive and inductive as well. The data source or research subject selection occur by revolving system as required to reach saturation, the research subjects are Dayak Kapuas Hulu community in West Kalimantan. According to the results, it indicates that parenting economy in the household of Dayak Kapuas Hulu community is performed by the following things: (1) provide verbal explanation, parents give advice to children how to perform economic behavior; (2) provide economic behavior exemplary, by performing cultural custom and habituation associated with efforts to fulfilled the daily needs; (3) conduct a discussion in economic decision making, for instance, discussing their children's future occupation; (4) engage their children in economic activity, by inviting their children to the gardening, farming, and hunting activities; and (5)guide their children to perform economic behavior according to the agreed regulation of natural resource management.

Keywords**:** parenting economy, household

Dayak Kapuas Hulu community consists of several sub tribes, one of them is Dayak Iban, which is domiciled in Mungguk Village. Dayak Iban people in Mungguk Kapuas Hulu Village live in one *betang* house which is relative big. It is occupied by more than 30 families. Their daily activity is done individually and in group. The life of Dayak Iban community in Mungguk Kapuas Hulu Village has been relative modern. They have known television and other communication tools, which are supported and powered by solar energy, which is pursued by the government.

Economic parenting which occurs in the household of Dayak Iban Community in Mungguk Kapuas Hulu Village tends to be different with the society in general. Dayak community, who live in *betang* house, in daily life they have interaction with other households because they live in one house, which the part of pavilion, the living room, and the back part, become one long part. Only the main part of the house is separated, which are family room/ living room, bedroom and kitchen. The interaction which occurs continuously leads to habits which are similar among the households, in the term of economic parenting to their children.

Economic parenting is a household economics learning which is conducted by parents to their children in the attempt to fulfill their needs. Economic parenting signals the direct involvement of children in the economic life of household, which is believed will establish an adherence of economic behavior, which in the future will be the daily behavior of children.

The study which was conducted by Skinner, et al. (1990) found that the academic achievement of students has a correlation with the active involvement of students in learning and teaching process. Furrer and Skinner (2003) found that the involvement of students in learning and teaching process is a key factor of success in students' motivation and academic achievement. If we take both research results above to the economic parenting, then the involvement of children in household economy is projected to be able to grow the literacy and

economic behavior of children.

Good relationship between parents and children will be very influential in the establishment of good communication, which can improve children's participation in economic parenting, which certainly can facilitate the formation process of children's economic attitude and behavior. It is in contrast with the finding of a research conducted by Kraft & Dougherty (2012), which found that the relationship between teacher and students, the involvement of parents, and students' motivation, are three main factors of communication process, which influence students' participation in learning and teaching process.

The former research result found that: (1) rational economic behavior of Dayak community is shown by most of people who live in land (rural area), which aims to be closer with agricultural location and location of hunting that they usually do; (2) productive behavior of Dayak community is shown in utilizing their field for agricultural activity, especially to plant rice, which is done once a year. Dayak community tend to raise poultry and pigs, and also plant vegetable, because it is a daily need ; (3) related to the ability in facing changes, flood will be a big problem for most of Dayak community. People are accustomed to save the product which can be used for a long time; (4) Technology utilization has appeared in the economic life of Dayak community, for example, the use of engined vehicles to catch fish, and the use of quite sophisticated tools to hunt; (5) Another finding shows that the cooperation in economic activities has been implemented in the daily life of Dayak community. In Dayak community, people are accustomed to live in group in family environment, therefore agricultural activity and other activities are done together by several families.(Basri& Soetjipto, 2015)

Economic behavior of Dayak community above shows rational behavior and moral economy. Local wisdom might be developed from generation to generation and becomes the habits of economic behavior which are maintained to the future generation. The learning process of habits which is projected by the author occurs in households intensively and together with their children in everyday life. Studying this is certainly an interesting thing, considering that the local culture is passed on from parents to their children through a different process.

This article is aimed to analyze the way of economic parenting which occurs in the households of Dayak Iban community, Mungguk Village Kapuas Hulu in West Kalimantan, with assumption that Household economic learning is the capital for children to survive in the future life. This research is important to do in order to determine the extent of local wisdom in economics inherited to the next generation, which may be the solution of economic problems which are faced in Indonesia and the global community.

LITERATURE REVIEW

Economic Parenting

Briefly, the function of parents is as educators, leaders, role models and responsible persons for their children. Such processes can be part of the internalization of children's economic behavior, whether in the form of rational economic behavior and moral economic behavior. The internalization process of economic behavior is conducted continuously and for a long time, so that it becomes part of children's daily attitude and behavior which will become parents for their children, and it also will take a role as household economic teacher for the offspring.

There is a term of *parenting* which is related to household economic learning. Parenting is a responsibility of parents towards their children for their children's life. Parenting prevailing in western countries is certainly different from what happens in Indonesia. Parenting which

happens in western countries puts more emphasis on the children's independence, while the parenting used in Indonesia is more directed at the kinship as a whole.

There are several principles in parenting: (a) maintaining good potential possessed by children, in which parents take roles as examples/ role models, reminders, and correctors/ justifiers; (b) affection, is the basis in growing and improving children's behavior; (c) patience, that educating is not something sudden, patience is not just restraining emotions/ anger, but we also should not be hasty in undergoing the process of educating children; and (d) consistent (firm and focused on the goal) and congruent (harmonious and congruent), parents should hold the primary objective to maintain a good potential for children, by giving example, being role model, constantly reminding, and trying to improve. (Fitriani, 2015)

According to Elkin (in Lucy, 2016), there are several types of parenting: (a) gourmet parent/ bourgeoisie parents are a group of successful young couples, have houses and nice vehicles, and have vacations to exotic places. They tend to take care of their children like when they take care of their careers and their wealth, full of ambition; (b) College degree parents/ intellect parents, they are very concerned with the education of their children by often being involved in many school activities of their children, they believe that a good education is the foundation for a successful life; (c) gold medal parents/ celebrity parents are a group of parents who want their children to be competitors in a variety of arenas, who want their children to win a number of victories; (d) do-it-yourself parents, this group is taking care of their children naturally and become one with the universe. They often become professional waiter in the field of social and health, and send their children to schools that are not so expensive. In daily life they invite their children to love the environment; (e) Outward bound parents/ paranoid parents, they prioritize the education of their children to be able to provide comfort and safety to their children, so that they can survive in this world, which is full of hostility. The world outside their family is full of danger; (f) prodigy parents/ instant parents, many of them are parents who are successful in their careers, but they only get an adequate education, so that their children are considered to have enough talent to succeed in the business world. Therefore, school is not something important for them; (g) encounter group parents/ 'huddle' parents, are parents who have and enjoy their association, they prioritize relationships in building relationships with other people. Sometimes they neglect the education of their children; and (h) milk and cookies parents/ ideal parents, they are parents who have a happy childhood. They tend to become warm parents and love their children sincerely. They are also very concerned with the growth and the development of their children with full of support.

There are some attitudes and helps that can be given by parents to their children: (a) the emotional attachment; (b) a healthy communication; (c) being meaningful person; (d) fostering a sense of responsibility; and (e) being both parents and friends. (Lucy, 2016)

Noormindhawati (and Jubilee Enterprise, 2014) in her book entitled "Secrets of the Millionaire in Educating Their Children", argues that there are several reasons that make millionaires do not inherit their wealth to their children, namely: (a) it is better to help others achieve success rather than enriching their children; (b) children should be familiarized to work hard and independently; (c) set aside a portion of their wealth for people with disabilities, education, social foundations, and other non-profit institutions; (d) wealth should not to be passed on from generation to generation; (e) not all of children have sufficient capacity to manage finance of their family.

To give children the ability to manage the financial, some things need to be given to children: (a) teach children that money can be obtained with hard work; (b) give the good example to children how to earn money and manage it appropriately and wisely; (c) teach children the difference between needs and wants; (d) teach investments to children, which is started with simple things. (Noormindhawati, and Jubilee Enterprise, 2014)

Based on the various descriptions above, economic parenting should be done by parents well, especially by giving example and engaging children to participate in acquiring and managing money. However, the orientation of involving children in the household economy should also be confirmed, as shown below:

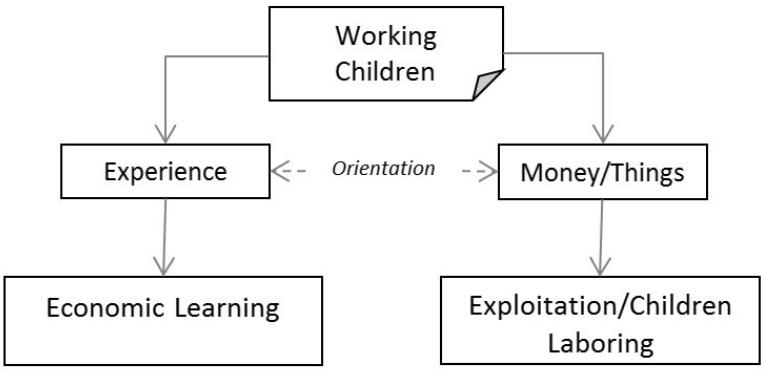

Figure 1: The Participation of Children in Household Economic
Source: Processed by the researcher

The picture above shows that firmness about the orientation of the involvement of children to participate in the household economy is very necessary. Sending children to work with the orientation of giving them the experience of economy is a part of their household economic learning, while it is oriented in money or material obtained by children, then it is a part of the exploitation or employing children.

Household Economy

Households can be seen as a unity of a group of people who are doing the activity of production, distribution and consumption. Household is the smallest social institution which has relationsthip between one person and others, in one house (one kitchen) who live in the relationship of economy, social and culture, in order to meet daily needs. According to the economic theory, household is assumed to always act rationally, in allocating resources and in consuming goods and services. (Fariyanti, 2008)

Household economics is the study of house or household, and the part that its plays in the economy (Hesse, 1984). A marriage involves two people who live together in the same house, in which there is a process of sharing consumer goods with the opportunity to share, depending on household size. Housekeeping does not require a blood relationship, as long as some people live in the same house, then it is called household. (Browning et al., 2011). Therefore, the household economy talks about how individuals in the household share the role in the economy of a household, including in obtaining and sharing consumer goods, regardless of blood relation.

Household institutions are also integrated in the decision-making, it can also be done by the head of the household, but the implication is applied as one unit of the household economy. The decisions which are taken are related to how to produce the goods to be consumed together.

RESEARCH METHOD

This research used a qualitative approach. According to Bogdan and Biklen (in Akbar, 2007) "Qualitative research is often called as naturalistic because researchers are interested in

investigating the phenomena as they happen naturally." This qualitative approach was chosen for the following reasons: (1) the reality that exists is essentially a double, constructed and holistic; (2) between people who know (knower) and what is known are interactive and inseparable; (3) only time and context which allows to be related to the working hypothesis; (4) all entities that exist are in simultaneous condition that it is almost impossible to distinguish between the cause and effect; and (5) this research is basically not free of value. (Lincoln and Guba, in Akbar, 2007)

The selection of data sources or research subjects take place on a rolling basis in accordance with the needs until it reaches saturation, with research subjects namely Dayak (Dayak Iban Mungguk Village) Kapuas Hulu in West Kalimantan.

As the main technique of data collection of qualitative research, in-depth interviews were used to obtain data fundamentally and specifically. The kind of this interview technique is unstandardized interview. Related to in-depth interview, which was the main data collection technique in this study, thus the data analysis used in this grounded research was coding.

FINDING AND DISCUSSION

Research Result

The results of this research showed that the household economic parenting in Dayak Kapuas Hulu community is conducted by: (1) giving verbal explanations; (2) providing role model of behavior; (3) conducting discussion in economic decision making; (4) engaging children in economic activities; and (5) giving demand to their children to behave economically in accordance with the rules applied.

In providing verbal explanations, the parents in Dayak Iban community in Mungguk Kapuas Hulu village give advices to their children, which became a lifeline for the offspring to behave economically. Advices that are given are related to economic activity, for example: (1) regarding the initial date of planting rice; (2) the rule of the age of animal which is eligible to be slaughtered, either for consumption or for ceremonies; and (3) put the urn as a place of rice in the central room of the house, and the urn as the place of drink in the kitchen. In Dayak community, besides in the form of advice, it is also in the form of customary law philosophies that is embodied hereditary from generation to generation, usually besides expressed by parents, it is also explained by traditional leaders when there is a routine ceremony and incidental ceremony.

Giving the example of economic behavior is giving example of indigenous culture and accustomization related to the efforts to fulfill their daily needs. The example of elders and parents in Dayak Iban in Mungguk Kapuas Hulu Village which is shown to their children in managing consumption needs in the household is in accordance with the capability they have. Cooking tools owned by the average of household consist of wood stove and gas stove, although there is a gas stove that is more practical, most of Dayak Iban community in Mungguk Kapuas Hulu village are is still using wood stove, especially to cook rice and drinking water, with an assumption that cooking rice and drinking water requires a long time, so if they use gas, it would be a waste, while there is an abundance of woods around them, so that they can save their money to buy gas. A concrete example which is more modern that is applied to the entire Dayak Iban community in Mungguk Kapuas Hulu village who are domiciled in betang house is the use of solar energy which is very limited to home lighting and television power, and also other electronic device with small power. None of them is infringed by the occupants of the betang house, which consists of more than 30 families. The examples which are shown by parents have become habits which are followed by their children.

Doing discussion in economic decision making shows an attitude of openness that exists in household of Dayak Iban community in Mungguk Kapuas Hulu village, for example, discuss what will be the job of their children. Children are not forced to work in a particular field, but they are welcome to choose their own job according to their goals, of course in accordance with the financing capability of their parents. Several informants who are interviewed for example, some of them have children who have been working as employees of government-owned bank in the district capital, some of their children also become teachers. When this research was conducted, it is also known that there are many parents who send their children to study in state university in the provincial capital, which has a very far distance.

Involving children in economic activities appears to be happening in Dayak Iban community in Mungguk Kapuas Hulu Village, which is taking their children to participate in gardening, farming and hunting with parents. To obtain fish in a river, for example, since they were young, small children have been taught how to make bubu (trap which is made of bamboo) to catch fish, which is made by the number of stem/ specific strands, which they think will affect the success of the catch. While girl teenagers (although the frequency has been reduced) have been involved in making woven mats and other various crafts, which are made from pandanus leaves and rattan, which are then used for everyday purposes.

Giving demands on their children to behave economically in accordance with the rules which are applied in the management of natural resources, the rules which had been agreed. The demand against the rules as in cutting woods as forest products, for the purposes of house construction, is only allowed on the old wood, and there is a maximum number of wood that is allowed to be cut. As for commercial purposes, there are heavier rules. In addition, the demands on their children also shown in choosing the location to cultivate rice, although shifting cultivation is still done, but there are rules to the location that can be selected as well as the maximum area that can be used. The rules are binding, so that there are penalties for the ones who disobey them.

Discussion

We should admit that verbal explanation in the economic parenting of Dayak Iban community in Mungguk Kapuas Hulu Village occurs in almost all the households, but it can be distinguished in the context of the subject matter presented. In Dayak community, advices are delivered as a part of the message of the ancestor which is local wisdom. Verbal explanation is delivered to their children by using verbal language, which is the language of Dayak Iban, which is one of the sub-tribes of Dayak tribe. Dayak Iban language as verbal language is a facility to convey ideas, feelings and intentions which will be conveyed by parents/ ancestors to their children as the next generation, by using words that represent various aspects of individual reality. Verbal explanation as the main part of a communication process usually is trying to convey symbols or messages by using one or more words. (Mulyana, 2012). Marhaeni (2009) says that the verbal explanation is oral statement between one human individual to another man, with the media of words and common symbols which are agreed between individuals or groups. Verbal communication uses words which is orally and consciously done by human to relate to other human beings.

Exemplary in economic behavior is something that is absolute. Parents forbid their children to behave wasteful, they should first give an example to not behave wasteful, so children have the example of the attitude and behavior of not wasteful which can be the behavior of their daily lives. Maryani and Syamsudin (2009) say that the process of education and learning is not only a question of transferring knowledge and skill, but it is also efforts to embed and provide good examples in terms of attitudes, values, morality, speech, action, and lifestyle.

It means that giving example and transferring knowledge and skills will come to the process of forming attitudes and behavior to children. Ki Hajar Dewantara revealed a slogan which is familiar in the educational community in Indonesia, namely *ing ngarso sung tulodo*, which means that if he/ she is in the front, he/ she give the example (Riva, 2006) It is precisely what is done by the parents in the household of Dayak Iban in Mungguk Kapuas Hulu Village in teaching their children to behave economically that is not wasteful and in accordance with the capability they have, some of which are shown by using wood stoves, which according to them is fairly efficient for cooking rice and drinking water, as well as providing an example of using the electric power of solar energy, corresponding to the available power.

Discussion of the openness shown by Dayak Iban community in Mungguk Kapuas Hulu village, where their children are not forced to follow the profession of their parents, but they provide the opportunity for children to express their desires and goals they wish to achieve. Discussion in principle is a strategy or tactic to convey something that involves other people (including student or child) actively, to discuss and find a variety of alternative solutions or a topic of discussion. (Wina Sanjaya, 2006). Discussion also means as the process of giving opportunity for each person (students or children) to develop the ability to solve problems rationally, that with such involvement, will make it easier to accept concepts that are presented, and can achieve pleasant achievement. (Sumarni, et al. 2014)

Involving children in household economic activities of Dayak Iban community Mungguk Kapuas Hulu Village is an attempt of parents to preserve local wisdom in economics that they have by involving children directly in meeting the needs of everyday life. Local wisdom in a community means human intelligence possessed by certain groups of people gained through the experience of everyday life, which is patterned into a behavior which is hereditary to the next generation (Rahyono, 2009). The result of research which was conducted by Dharmayana (2012) recommends that the involvement of students in the school should become the focus of attention of the educators in school as the output of education that contribute directly to the students' academic achievement. This also means that the direct involvement of children in Dayak Iban community in Mungguk Kapuas Hulu Village will allow their children to study the economic behavior they should do easier in accordance with the principles of rationality and the demands of local knowledge which they have.

Giving demands to behave with the availability of sanctions for the ones who disobey the rules is a part of the required behavior. There are two types of economic behavior that might occur, which acts under the control of volition (volitional behavior) and action because it is obliged (mandatory behavior) (Jogiyanto, 2007). Economic behavior which is under the control of volition more prioritizes the elements of desire to do behavior, while the behavior that is obliged can rely on rules or norms that are applied. The second behavior is performed by Dayak Iban community Mungguk Kapuas Hulu village, they give demands for their children to behave economically in accordance with the customs and culture of they have.

CONCLUSION

The results of this research showed that economic parenting in the household of Dayak Kapuas Hulu community was conducted by: (1) giving verbal explanations, parents convey advices to their children that become a lifeline for the offspring to behave economically, we should admit that verbal explanations in economic parenting of Dayak Iban community Mungguk Kapuas Hulu village occurs in almost all of the households, but it can be distinguished in the context of the subject matter presented. In Dayak community, advices are delivered as the part of ancestors' message which is the local wisdom; (2) giving good examples of economic behavior, such as giving an example of cultural customs and accustomizations which

are associated with the fulfillment of the needs of everyday life. Parents in the household of Dayak Iban community Mungguk Kapuas Hulu village teach their children to behave economically, which is not wasteful and in accordance with the capability they have. Some of which are shown by using wood stoves, which according to them is fairly efficient for cooking rice and drinking water, as well as providing good example of using the electric power of solar energy in accordance with the available power; (3) conducting discussion in making economic decisions, for example, discussing about what will be the job of their children, the discussion is the openness that is shown by Dayak Iban community in Mungguk Kapuas Hulu village, where their children are not forced to follow the profession of their parents, but parents give the opportunity for children to express their desires and goals they wish to achieve; and (4) engaging children in economic activities, by bringing their children to participate in gardening, farming and hunting, the direct involvement of children in Dayak Iban community in Mungguk Kapuas Hulu village will make their children easier to study economic behavior that should they do according to the principles of rationality and the demands of local knowledge they have; and (5) giving the demand for their children to behave economically in accordance with the rules applied in the management of natural resources, the rules which have been agreed together. They demand their children to behave economically in accordance with the customs and culture they have.

REFERENCES

Akbar, S. 2007. *Pembelajaran Nilai Kewirausahaan dalam Perspektif Pendidikan Umum: Prinsip-prinsip dan Vektor-vektor Percepatan Proses Internalisasi Nilai Kewirausahaan*. Malang: Penerbit Universitas Negeri Malang.

Basri, M. & Soetjipto, B. E. Household Economics Learning in the Context of Malay and Dayak Communities. *European Journal of Business and Management.* Vol. 7, No. 28, 2015.

Browning, M., Chiappori, P.A., Weiss, Y. 2011. *Family Economics*. Book_index_07_09_2011.

Fariyanti, A. Perilaku Ekonomi Rumah Tangga Petani Sayuran pada Kondisi Risiko Produksi dan Harga di Kecamatan Pangalengan Kabupaten Bandung. *Jurnal Agro Ekonomi*, 25 (2) Okt 2007: 178-206

Fitriani, O. 2015. *The Secret of Enlightening Parenting: Mengasuh Pribadi Tangguh, Menjelang Generasi Gemilang*. Jakarta: Gramedia Pustaka Utama.

Furrer, C. & Skinner, E. Sense of Relatedness as a Factor in Children's Academic Engagement and Performance. *Journal of Educational Psychology*, 2003, Vol. 95, No. 1, 148–162.

Hesse, K. Household Economics and Economics. *International Journal of Consumer Studies*. Vol. 8, Issue 4, Desember 1984, pages 273 – 281.

Jogiyanto. 2007. *Sistem Informasi Keprilakuan*. Yogyakarta: Penerbit Andi.

Kraft, M.A., & Dougherty, S.M. 2013. The effect of teacher–family communication on student engagement: Evidence from a randomized field experiment. *Journal of Research on Educational Effectiveness*, 6(3), 199-222.

Lucy. 2016. *Panduan Praktis Tes Minat dan Bakat Anak*. Jakarta: Penebar Plus+

Marhaeni, F. 2010. *Ilmu Komunikasi Teori & Praktik*. Yogyakarta: Graha Ilmu

Maryani, E., & Syamsudin, H. Pengembangan Program Pembelajaran IPS untuk Meningkatkan Kompetensi Keterampilan Sosial. *Jurnal Penelitian*, Vol. 9, No. 1, April 2009.

Mulyana, D. 2012. *Ilmu Komunikasi Suatu Pengantar*. Bandung: Remaja Rosda Karya.

Noormindhawati, L. & Jubilee Enterprise. 2014. *Rahasia Para Miliuner Mendidik Anak*. Jakarta: Elex Media Komputindo.

Rahyono, F.X. 2009. *Kearifan Budaya dalam Kata*. Jakarta: Wedatama Widyasastra.

Rivai, V. 2006. *Kepemimpinan dan Perilaku Organisasi*. Jakarta: PT Raja Grafindo Persada.

Sumarni, A.H.H., & Imran. Penerapan Metode Diskusi untuk Meningkatkan Hasil Belajar Siswa Kelas IV Sekolah Dasar Kecil Toraranga pada Mata Pelajaran PKn Pokok Bahasan Sistem Pemerintahan Kabupaten, Kota dan Provinsi. *Jurnal Kreatif Tadulako Online,* Vol. 3 No. 4, tahun 2014.

Sanjaya, W. 2006. *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana.

Role of Learning Mathematics in the Character Building

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Abstract: Mathematics is one of the important science and studied starting from elementary education. Learning mathematics plays an important role in various fields of knowledge, one of them in the character building. In this paper, we will examine how the role of mathematics in the character building so as to develop the values of life. The conclusion of this paper, the learning of mathematics also influence in forming the character of students. Characters that can be built from teaching and learning mathematics among other things: discipline, honesty, fair and wise, assumes good faith, perseverance, logical and rational, and critical and creative. The hope to be enables teachers to convey the values of life when teaching and learning mathematics so that students have a strong character.

Keywords: mathematics, character building

The character of a nation depends on the character of every citizen. The character of a nation can be defined as a characteristic of a nation and the advantages of these nations. It means that a nation should be able to maintain the original character of his country in many ways. The loss of the character of a nation will be a great loss of the nation. Without the original character, a nation will only be a "follower" of another nation because too many characters of other nationalities who come in and become the character of the nation's citizens. "*Bangsa pengekor*" more potential to absorb negative charges and are always busy and spends all his time with various efforts to overcome a variety of problems, instead of building a nation (Agung and Pramono, 2010).

At this moment in Indonesia happen many irregularities norms that adorn the life of the nation. Of course this is the world of education into the spotlight, because education is considered as the leading contributor to the formation of personality, intelligence, and religious. Ironically many violations marred the nation's character performed by teenagers/school age. Brawl between students, immoral, illegal drugs, dishonesty, and lack of discipline often the news highlights. Along with the proliferation of these violations, the character of the Indonesian nation being eroded and replaced with a culture of a foreign nation. The world of education was considered a failure in its efforts to establish and develop the human character.

The formation of character is one of the national education goals. Article 1 of Law 2003 National Education System declared that one of the goals of national education is to develop the potential of learners to have the intelligence, personality and noble character. Act 2003 National Education System intended that education is not only establish Indonesia intelligent beings, but also personality or character, so that will be born generation of people who grow up with a character that breathes noble values of the nation and religion. The Hardiknas theme of "Civilization Character Education for Nation Building was popularizing in 010. In 2011 the theme Hardiknas is "Character Education as a Pillar of the National Awakening (Achieve High Performance uphold Budi Character)". Since 2010, the government has tried to focus on the formation of national character through school education. Even in 2013 the character education curriculum had been included in each subject, one of which is mathematics.

Mathematics is one branch of science learned since elementary school. Math learned from elementary school because one branch of which is a significant contribution to shaping the mindset of the individual. According Soejadi (1999), mathematics education as a vehicle not only can be used to achieve one goal, for example to educate students, but also to shape the personality (character) students. Mulyono (2003) suggested that mathematics is a way to find answers to the problems facing humans; a way to use the information, using the knowledge of shapes and sizes, using knowledge of the count, and the most important thing is to think of a human being itself in seeing and using the connections.

Mathematics with all the characteristics need interactive learning, innovative, and creative. Mathematics can form a human with a learning mindset. In other words, the learning of mathematics had a big contribution in forming the human character with due respect to the affective and integrate with local knowledge and religion. Unfortunately, teachers tend to be concerned with aspects of cognitive and psychomotor and affective aspects less attention. In Al-Alaq Allah says *iqra bismirobbikal ladzi kholaq*. Einstein argued that religion without science is blind, and science without religion paralyzed. It means that in studying science should be associated with a religion that human character remains intact, not eroded and irregularities.

Based on the previous description, the author attempts to discuss more about the role of the learning of mathematics in forming of character. The main focus will be studied is how the role of the learning of mathematics in forming of student character and the character of what can be built on students in mathematics.

LEARNING MATHEMATICS

In the process, mathematics is no longer considered only as an inexact science, but also in the social sciences clumps. This is because; math was instrumental in forming the human mind. A mathematical concept is also capable of being used in all aspects of life such as: language, culture, games, etc. Herman (2009: 96) explains that the essence of mathematics in respect of ideas, structures, and relationships are governed by a logical sequence. The scope of mathematical work is described by Herman (2009: 96-97) that the mathematical work consists of observation, guess and test hypotheses, look for analogies, and finally formulate theorems starting from assumptions and elements that are not defined.

The properties of mathematics is abstract, making mathematics requires meaningful learning to be easily understood by students. Learning will be meaningful if it is able to connect with the culture and norms that are around, integrating mathematics with other sciences. According to Bishop (in Nyimas Aisha, 2011), there are three categories of grades in mathematics, namely the value of public education, the value of mathematics and mathematics education values. Learning activities need to use principles: (1) centered on the learner, (2) develop the creativity of learners, (3) create favorable conditions and a challenging, (4) uncharged values, ethics, aesthetics, logic, and kinestetika, and (5) provides a diverse learning experience through the application of various strategies and methods of learning fun, contextual, effective, efficient, and meaningful (Wahyudin, 2013).

We know that the purpose of learning mathematics by Permendiknas 22 of 2006 include: 1) understand the mathematical concept, explain the link between concepts and apply concepts or algorithms in a flexible, accurate, efficient, and precise in problem solving, 2) using the reasoning in the patterns and nature, perform mathematical manipulation in making generalizations, compile evidence, or explain mathematics ideas and statements, 3) to solve the problem; 4) communicate ideas with symbols, tables, diagrams, or other media to clarify the situation or problem, and 5) have an attitude appreciate the usefulness of mathematics in life, an attitude of curiosity, attention, and interest in studying mathematics, as well as a tenacious

attitude and confidence in problem solving. Briefly, the learning of mathematics include cognitive, psychomotor, and affective.

Usually, the cognitive domain stills a priority for teachers, and the exclusion of the affective domain. As a result, students lack knowledge about the usefulness of mathematics in everyday life, lack of confidence in learning mathematics, lack of interest, concern and curiosity. It certainly can be influential in the personality of the student. Therefore, teachers must be able to convey the norms of life, the surrounding culture through the learning of mathematics.

CHARACTER BUILDING

Character is characteristic of every human being. The Ministry of National Education (2010), propose a definition of the character as follows: "Character is nature, disposition, morals, or personality are formed from the internalization of virtues (virtues) who believed and used as a basis for perspective, thinking, acting, and acting. Berkowitz (1997) defines character as "an individual's set of psychological characteristics that Affect that person's ability and inclination to function morally. Indeed, the basic concept of character (character) is taught in religion which is human nature. In Islam, there are four characters that have been exemplified by Muhammad namely: sidiq (honest), amanah (responsibility), tabligh (communication skills), and Fatonah (smart). Those aspects better known as cognitive aspects (Fatonah) psychomotor (tabligh), and affective (sidiq, trust) in the world of education.

Character education is essentially a process of built of the behavior of each individual or people to get used to behave well and appreciate the importance of valuing, desiring the good that comes from loving the good (Rukiyati, 2013). The purpose of the character education basically encourages the birth of a good man, has a charming personality, ethical, unpretentious, honest, intelligent, caring and tough (Sudarsono, 2008).

In 2016, the government launched a program of mental revolution to improve the character of the nation. In the area of education, character building into the structure kurtilas. Hopefully, teachers can collaborate on subjects with a range of knowledge and values of life that is the original culture of Indonesia. Nyoman (in Indra, 2015) convey, dimensions of life in the world of education would be more meaningful to each other, because each individual complementary (take and give, share and respect, belief and trust). In fact, education in Indonesia is still promoting the value which results in the competition. Therefore the affective aspect is often neglected. In fact, the affective aspect is the part that allows teachers to develop the mental character of students in learning.

Indeed, in 1922 through Tamansiswa founded by Ki Hadjar Dewantara, has provided the basic concept of education that guide a teacher known as Patrap Triloka. Patrap Triloka has elements (in Javanese), namely: (1) Ing ngarsa sung tuladha (which is in front exemplary / sample); (2) Ing madya Mangun Karsa (in the middle of the building initiative / spirit); and (3) Tut wuri Handayani (from the back support). If teachers follow the teachings Tamansiswa, then the teacher is not only in charge of teaching, but it also must be able to be a role model for students, is able to build a spirit, and always supports the activities of students.

ROLE OF LEARNING MATHEMATICS IN THE CHARACTER BUILDING

Mathematics learning in the classroom can be done by encouraging students to undertake reflection and appreciation. In this way, the learning of mathematics can instill and strengthen motivation, appreciation or reward students towards mathematics, the contribution of students in learning, interests, beliefs, confidence and perseverance. Things were like this has been lost

in the implementation of learning mathematics in the classroom. The loss of character values due to the value-oriented learning only, not of performance and processes.

Ing Ngarso Sung Tulodho (Giving ideals)

Learning mathematics can be used as a means to build character in students if the teacher / educator is able to provide exemplary students. In formal schools, there are many regulations that must be adhered to by students, but unfortunately, these regulations are not exemplified by the teachers. For example, if there is a rule that students must be disciplined, obedient, and to respect the teacher, then the teacher must give an example of discipline, obedience and love of students. Ironic if students can not smoke, but the teacher instead of smoking.

Nowadays, teachers in formal schools both state and private, have a lot of attention to character building. However, the portion given over private schools based on religion. Character is attached to religion, so that when it wants to develop the character of a person, would be studying religion properly. If we observe the religious-based schools, for example in Islamic schools, they try to integrate the contents of subjects with religious teachings. In this case, the teacher must continue to learn and read. *Iqra bismirobbikalladzi kholaq*. Humans have been instructed to read the name of God (Allah). Thus, learning is not just brain activity, but also careful to meaningful use.

Ing Madyo Mangun Karso (Giving Spirit / Initiative)

Ing Madyo means in the midst, *Mangun* means raising or evocative, and *Karso* means shaping the willingness and intention. So the meaning of *Ing Madyo Mangun Karso* is someone who is in the middle should be able to raise the spirit in order to create a strong will. Therefore, it must offer innovations within their organizations by creating an atmosphere that is more conducive and provide comfort. In addition to providing exemplary, teachers must also be able to give encouragement and a friend to the students. It is certainly not easy, given the tradition a teacher must be in front, teaching, and pamali if the teacher was a friend to the students.

A friend for students interpreted as a friend to discuss science. Often students are afraid and shy if you want to ask or discuss with teachers in subjects related problems. Teachers should be open and friendly to students, so that they are comfortable when going discussion. Not easy for teachers, on the one hand he should be a role model, a leader, but on the other he must be a friend of the students.

Tut Wuri Handayani (Providing Support)

Tut Wuri Handayani means when it is behind, he gave support. In this case, teachers do not always patronize, but he served as student support so that they can develop their potential. Of the three teachings Ki Hadjar Dewantara, it is important for teachers to be able to be three roles, namely: a role model, motivator and supporter. When learning takes place, it is the duty of teachers to educate students so that moral personality / character of students in accordance with religious teachings and character of the nation. To build one's character is not easy. It will be difficult to change the character of the people who have been entrenched, and it was widely followed by the younger generation.

An effective way to build character is from the family. However, in reality many families who are not or less provide character building for their children. Some of the causes include: they do not have enough knowledge, the bustle of the office, and no vision of building a harmonious family mawaddah warahmah. In the end, they give up education to schools.

Characters education has long been true get into schools. Now, through one of the programs of the President Joko Widodo "Mental Revolution" requires every field of work repairing and building mental nation. In education, character building into the curriculum, and each subject should associate with the character.

Character building through Learning Mathematics

Based on the purpose of mathematics courses according Permendiknas 22, 2006, not only arithmetic mathematics, but mathematics is a social science. Students are expected to be able to resolve the everyday problems by using mathematical concepts. According Suwarsono (2011) deals with the noble values contained in mathematics that can be developed through the study mathematics, among others: (a) The value of logic in thinking, (b) The value of careful, thorough thinking and making decisions, (c) The value of discipline to obey the rules and agreements made, (d) the value of tenacity and patience in facing the problems, (e) the value of self-reliance in attitude, (f) the value of honesty in acting, (g) the value appreciation of time, (h) Value democratic.

Several mathematics concepts can be implemented in forming character of students, among others:

1. Discipline. Mathematics teaches students to be disciplined and obey the rules. Consequences if not disciplined and break the rules, it will cause one meaning and solution are not true. For example, the Fibonacci sequence (1,1,2,3,5,8, ...). Rules on the Fibonacci sequence to sum up the previous two terms. If this rule is violated, then the Fibonacci sequence is no longer obtained.
2. Honest. Honesty has now become a rare thing. Many people are willing to lie in order to make a profit. In one Hadith, the Prophet called the characteristic of the hypocrites one of them is telling a lie. Honesty can be taught through learning mathematics. For example, when the teacher asked the students, "Do the students already understand?" If students are not honest to say "understand" but it turns out they do not understand him, who will lose their own. When the material to the nth not understand, then that material all n + 1 will not understand, because interrelated. When lying, it will bring a lie - another lie to cover up a lie ago.
3. Fair and Wise. Fair and wise attitude can also be embedded through the learning of mathematics. For example in the material system of linear equations. Students must be wise in choosing the method of settlement (elimination, substitution, or mixed). Students also have to be fair when resolving a system of linear equations. If the right side minus 8, the left side will also be reduced 8.
4. Be good prejudiced / Khusnudlon. In mathematics can embed the nature of prejudice. Students must have faith that all issues must have a solution. *Fainna ma'al'usri yusro*, the real hardship comes ease. We can see the concept of absolute price and the concept of a number of squares. Whatever the number is, whether positive or negative, the result will be positive. (-3) 2 = 9; | -3 | = 3.
5. Tenacious. Mathematics is abstract makes students less confident and less confident when work on the problems. Suppose there is a problem $\left(1-\frac{1}{2^2}\right)\left(1-\frac{1}{3^2}\right)\left(1-\frac{1}{4^2}\right)...\left(1-\frac{1}{2016^2}\right)$. If seen, the question of course will be very difficult to do. However, if the student is tenacious and willing to work hard, of course it will be successfully completed.
6. Logical and Rational. One of the subjects in mathematics is logic. Mathematical logic teaches us to logical thinking. Noting the premises before drawing a conclusion. After the conclusion, reflected back if the statement is true (tautology) or false (contradiction).

7. Critical and Creative. Critical and creative thinking is one of the characteristics mathematics. Critically and creatively to make students able to act effectively and efficiently by taking into account the possibilities and consequences.

CONCLUSION

Need a real effort to build national character through character building. Character education can be started from the family education, community, and school. Character education can be implanted through the learning of mathematics. Characters that can be built from mathematics learning among other things: discipline, honesty, fair and wise, assumes good faith, perseverance, logical and rational, and critical and creative. The hopes to be enable teachers to convey the values of life when learning mathematics so that students have a strong character.

REFERENCES

Prabowo, A dan Sidi, P. 2010. *Proceedings of The 4th International Conference on Teacher Education; Join Conference UPI & UPSI:* Memahat Karakter Melalui Pembelajaran Matematika. Bandung: UPI

Badan Standar asional Pendidikan. 2006. *Standar Kompetensi dan Kompetensi Dasar Matematika SMA/ MA.* Jakarta: Departemen Pendidikan Nasional

Berkowitz, M.W. 1997. The Complete Moral Person: Anatomy and Formation dalam J. M. Dubois, ed., *Morallssues In Psychology: Personalist Contributions To Selected Problems*, 11-42. Lanham, Md: University Press of America

Depdiknas. 2003. *Undang-undang Republik Indonesia No. 20 Tahun 2003 tentang Sistem Pendidikan Nasional.* Jakarta: Depdiknas

Herman, H. 2009. *Pengembangan Kurikulum Matematika & Pelaksanaannya di Depan Kelas.* Surabaya: Usaha Nasional

Indra. Revolusi Mental, Tonggak Perubahan Dunia Pendidikan. (Online): http://prasetya.ub.ac.id/berita/Revolusi-Mental-Tonggak-Perubahan-Dunia-Pendidikan-16626-id.html diakses 5 Oktbober 2016]

Aisyah, N. 2011. *Pemahaman Guru tentang Penerapan Nilai-nilai pada Pengajaran matematika SMP.* Prosiding Seminar Nasional Pendidikan UNSRI

Rukiyati. 2013. Urgensi Pendidikan Karakter Holistik Komprehensif di Indonesia. Jurnal Pendidikan Karakter. Tahun III, No 2 Juni

Soedjadi, R. 2000. *Kiat Pendidikan Matematika di Indonesia*. Jakarta: Direktorat Jendral Pendidikan Nasional

Wahyudin. 2013. Membangun Karakter Bangsa Melalui Pembelajaran Matematika Kurikulum 2013. *Jurnal Pendidikan* vol 14 No. 2 pp: 73-79

Biology Student Teacher's Critical Thinking: An Exploration Study

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Abstract: Critical thinking is incorporated in learning outcomes to enable student teacher to analyze, evaluate, and synthesize information in the new era of information and technology era. It is very important for the preparation and understanding of their future profession as a teacher who was crucial in setting up the community of critical thinkers. This study aimed to determine the critical thinking ability of Biology student teachers. The method used is descriptive analysis with the total research subject is 98 sophomores in Biology Education at State University of Malang. The instrument used is critical thinking test consisting of 25 multiple choice questions which refer to Watson-Glaser Critical Thinking Appraisal (WGCTA). Data were analyzed using *SPSS 22.0 for Windows* with descriptive statistic. The result showed that only 35 students (35.71%) who have achieved critical thinking ability with the average of 61.39. Ability to evaluate the argument has the highest average (X=79.39) and make inference has the lowest average (X=27.14). Efforts to overcome the lack of critical thinking ability can be done by training the students to solve problems from multiple resources, one of them is through a challenge based learning.

Keywords: critical thinking, student teacher, WGCTA

Critical thinking skills are very important for the university students (Abdi, 2012). With the critical thinking skills, students can find the right information by analyzing, evaluating (Watson and Glaser, 2012; Wallace and Jefferson, 2013) and read various information from the internet reflectively (O'Hata, 2014), which validity still unclear because it is not evaluated as well as in print media (Ranaweera, 2008), in preparing a variety of tasks including research study. Wallace and Jefferson (2013) explained that the ability to think critically is very important for the research process, including narrowing the topic of research, developing the research questions, and determining whether the information is relevant or not to the research conducted. Critical thinking skills can also make the students not just memorize the facts in learning (Gun et al., 2008), but also can construct knowledge through the evaluating, analyzing (Cekin, 2015), interpreting, and deducing information (Qamar, 2016). In other words, critical thinking can help the university students to emphasize the higher level of thinking abilities in teaching and learning (Smith and Szymanski, 2013).

The importance of critical thinking skills is no longer being a controversy especially in the education field. Yet, the definition of critical thinking skills is still being a subject of debate by the experts. In this study, the definition refers to the ability to think some of the following definitions. Critical thinking is defined as the ability to analyze evidence, make a conclusion by deduction or induction, evaluate, and make decisions or solve problems (Lai, 2011). Critical thinking is also defined as the ability to identify and analyze problems and search and evaluate relevant information to reach a proper conclusion (Watson and Glaser, 2012). Critical thinking in a simple way is defined as analyzing and evaluating information (Duron et al., 2006). Based on some of these definitions, the most important part of critical thinking is to analyze and evaluate information and use it to find the right decision.

Critical thinking skills and the abilities which relevant to the critical thinking is also very important for the student teachers related with the preparation and the understanding of their profession as a teacher in the future (Bahr, 2010; Allammakhrah, 2012). The ability to evaluate and analyze information is crucial for the teachers' professional competence. With these abilities, student teachers will be able to convey the material correctly and accurately in accordance with the science development. In terms of pedagogical, student teachers will also be able to perform the teaching and learning process that encourages students to have the ability to think critically (Akkaya, 2012; Akgun and Duruk, 2016). For the student biology teacher it is very important, remembering the perception of the majority students which consider that biology is a matter of abstract material and full of recitation which affected the learning strategy used by students who put more emphasis on the ability to memorize (Monsour, 2011; Cimer, 2014, Carlan et.al., 2014, Lin et. al., 2014), which belong to the low-level thinking skills (Anderson and Krathwohl, 2001). With critical thinking skills, student teachers will also familiar with the self-reflection (Elder and Paul, 1994; Weissinger, 2004). With the strong ability of self-reflection, a prospective teacher will be able to improve the quality of learning which is done continuously. Thus, the prospective teachers with the critical thinking skills are qualified teacher candidates and required to improve the quality of education and to educate the students to become qualified people (Gedik, 2013; Kezer and Turker, 2012). One of the efforts to provide teachers who are critical thinkers is by providing prospective teachers education with the curriculum and the teaching and learning process that consider the critical thinking skills as the specific goal (Gunn et al., 2008; Akkaya, 2012; Akgun and Duruk, 2016).

One of the prospective teachers education that considers critical thinking in the curriculum that is written in the graduates' achievements are Biology Education Study Program, State University of Malang. In achieving the required outcomes of graduates needs an appropriate learning strategy. However, the lecturer as the instructional planner must know first the prior knowledge of their student teachers. Some researchs showed that the student teachers' critical thinking skills is low (Akgun and Duruk, 2016; Suciati, 2015; Rusdi and Umar, 2015; Bakir, 2015; Wibowo et al., 2012). Meanwhile, the result form Gojkov et al. (2015) showed that although the student teachers' estimation about their critical thinking skills are very high, but still has not been actualized in a situation that requires the application of some aspects of measurement indicators. Until now there has been no reports of Biology student teachers' critical thinking skills. The objective of this research is to determine the critical thinking skills level of the first semester Biology student teachers at the State University of Malang.

METHOD

This study was used a descriptive approach. This study was conducted on 98 freshman biology student teachers in Biology Education Study Program, State University of Malang batch 2016. The research instrument used was a critical thinking test which developed with reference to the Watson Glaser Critical Thinking Apraissal (WGCTA) indicators (Watson and Glaser 2008 ; 2012). The critical thinking test was in the form of objective test consisting of 25 items. The test consisted of three main abilities. The first ability is making the conclusion, it consists of 15 items. The second ability is recognizing assumptions, it consists of 5 items. The last ability is evaluating the argument, it consists of 5 items. The ability to make conclusions consists of 3 sub abilities namely inference, deduction, and interpretations with 5 items in each sub. The time given for doing this test is about 30 minutes. The statistical test showed that the developed test is valid and reliable with a Cronbach Alpha reliability coefficient of 0.57. The data collected in this study were analyzed using SPSS. 22.0 for windows to determine the average and the standard deviation of each capability. Students who gain a greater score than

the average plus standard deviation are classified as high ability, students who gain a lower score than the average minus standard deviation are classified as low ability, while the students who gain a score between the two categories were classified as medium abilities. Thus, we will get an overview categories of low, medium, and high on each aspect of critical thinking skills of freshman biology student teachers.

FINDINGS AND DISCUSSION

Based on the research conducted, it was obtained the highest average of 79.39 on the ability to evaluate the arguments, the average ability of deduction was 69.59, the average ability of the assumption was 65.71, the average ability of interpretation was 65.10, and the lowest average was 37.14 on the ability to make inference. The overall average of students' critical thinking skills was 61.39. This result showed that relatively the students' critical thinking skills is still in the medium level. The average and standard deviation of each students' critical thinking skills can be seen in Table 1.

Table 1. Average and standard deviation of each critical thinking skills

No	Skills	Average	Standard Deviation
1	Inference	27.14	23.02
2	Assumption	65.71	20.31
3	Deduction	69.59	15.79
4	Interpretation	65.10	25.25
5	Argument Evaluation	79.39	18.71
	Total	61.39	10.88

The critical thinking skills of freshman biology student teachers in each critical thinking skills are defined as follows.

1. The ability to make inference

Students' ability to assess the probability of a conclusion based on the accuracy of the information provided in a statement. Students should be able to recognize the presumption accuracy level ranging from wrong, may be wrong, there is no, probably true, and true in accordance with the given statement. Based on the descriptive analysis result of the ability to make inferences found that students who have the high ability were 19 people (19%), students who have the medium ability were 51 people (52%), and students who have low ability were 28 people (29%). The result is presented in Figure 1.

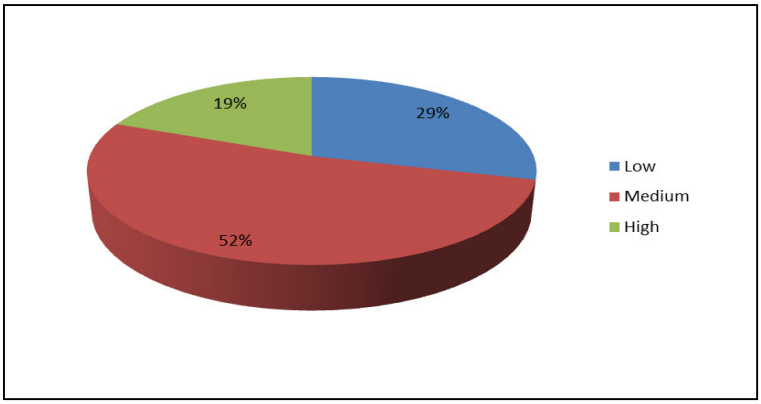

Figure 1. the percentage of the ability to make inference

2. The ability to recognize assumption

The ability to identify the assumption provided in a statement. Students must be able to distinguish the assumption that justifies the statement and the assumption that do not justify the statement that has been provided. Based on the descriptive analysis results of the ability to recognize assumption found that students who have the high ability were 7 people (7%), students who have the medium ability were 68 people (69%), and those who have low ability were 23 people (24%). The result is presented in Figure 2.

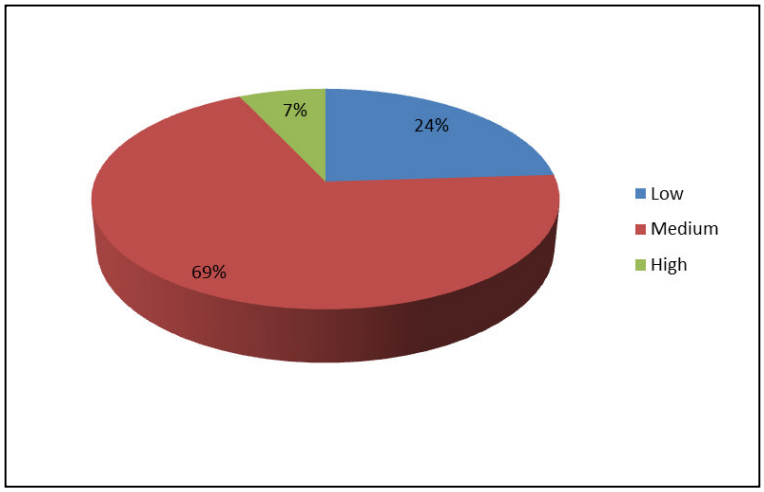

Figure 2. The percentage of the ability to recognize assumption

3. The deduction ability

The ability to determine a logical conclusion and follow the information that is provided or not provided. Based on the descriptive analysis result of the deduction ability found that students who have high ability were 9 people (9%), students who have medium ability were 80 people (82%), and those who have low ability were 9 people (9%). The result is presented in Figure 3.

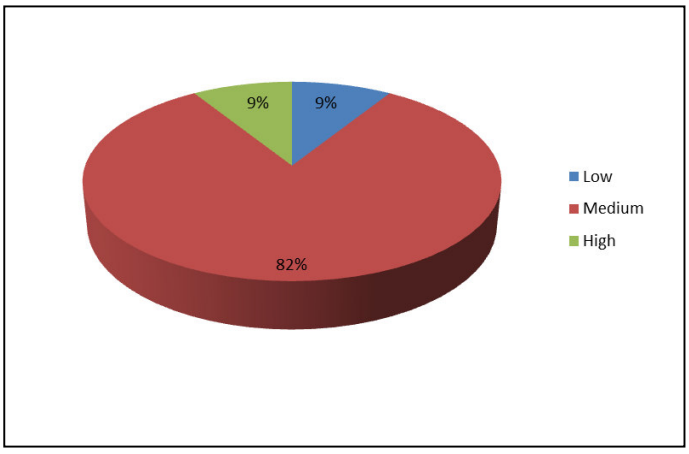

Figure 3. The percentage of the deduction ability

4. The interpretation ability

Ability to assess the fact and evidence and determine whether the conclusions was made based on the data that has been provided or not. Based on the descriptive analysis result of the

interpretation ability found that students who have high ability were 17 people (17%), students who have medium ability were 73 people (75%), and those who have low ability were 8 people (8%). The result is presented in Figure 4.

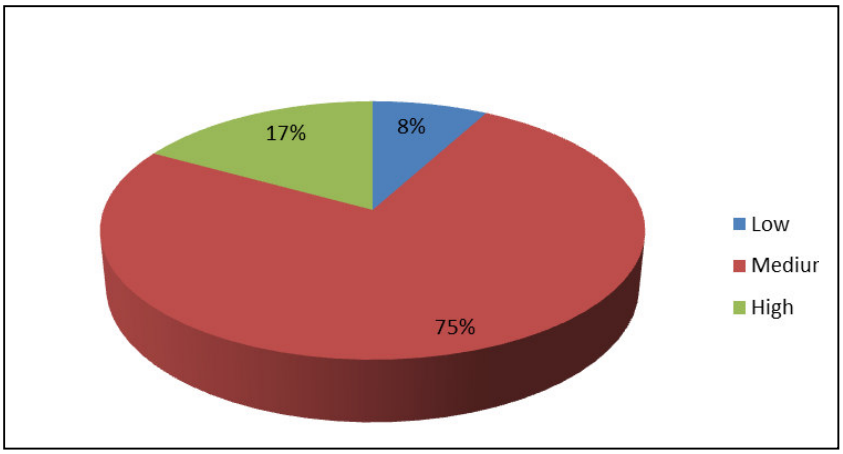

Figure 4. The percentage of the interpretation ability

5. The ability to evaluate argument

The ability to assess an argument in its strength and its relevance to a problem. Students should be able to assess whether the argument given is strong or weak. Based on the descriptive analysis result of the ability to evaluate the arguments found that students who have high ability were 34 people (35%), students who have the medium ability were 57 people (58%), and those who have low ability were 7 people (7%). The result is presented in Figure 5.

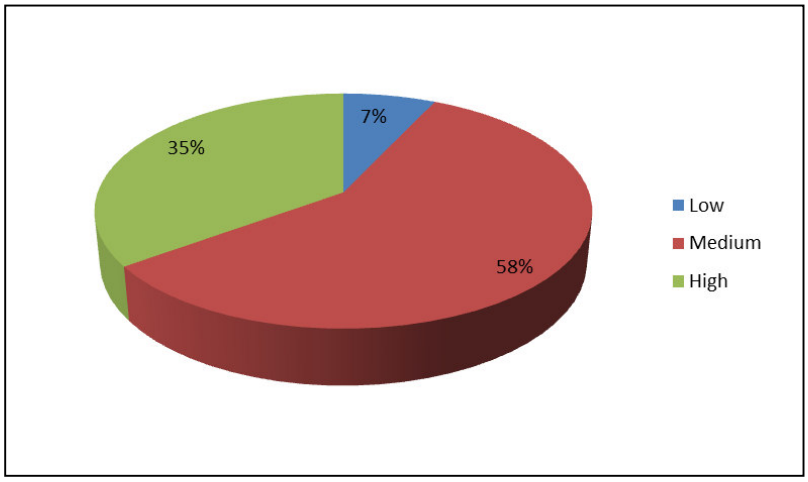

Figure 5. The percentage of the ability to evaluate argument

From the descriptive analysis result on all critical thinking skills found that students who have high ability were 14 people (14%), students who have medium ability were 68 people (70%), and students who have low ability were 16 people (16%). It is presented in Figure 6. The descriptive analysis result also showed that only 35 students who can achieve the critical thinking (the minimum score was 65).

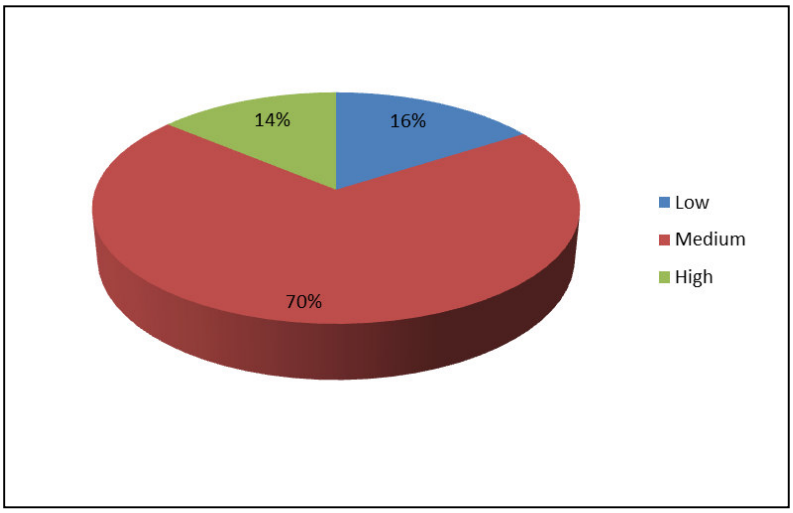

Figure 6. The overall percentage of critical thinking skills

The profile of all measured aspects showed that the students' ability to determine a statement of "right and wrong" or "yes and no" with the provided information have reached the criteria fairly well, but when the choice of determining a statement is ranged into "Right" "Almost Right", "No Data", "Maybe Wrong" and "Wrong" as in the inference ability, the students were still find difficulties in determining the level. The descriptive analysis result of each students' critical thinking skills showed that the ability with the highest average and belong to the high category is the ability to evaluate the arguments, and the ability with the lowest average and belong to the low category is the ability to make the inference. In general, the students' critical thinking ability from each aspect measured was fairly equal and classified as the intermediate level. This result is in contrast with some previous researchs which showed that the level of student teachers' critical thinking skills is on the low level. A number of studies showed that the student teachers' critical thinking skills is low (Akgun and Duruk, 2016; Suciati, 2015; Rusdi and Umar, 2015 ; Bakir, 2015; Wibowo et al., 2012).

This study has showed the Biology student teachers' level of critical thinking skills. However, this research is still have some shortcomings that must be reviewed remembering the limitations of the subject which only includes one level (freshman) and the number of questions in the test used as instrument is only 5 items per indicator. Thus, it is recommended for further researchs to show the Biology student teachers' level of thinking at all levels and includes several universities as well as adding the number of questions for each indicator.

The intermediate level of Biology student teachers' critical thinking skills showed that it is needed a learning environment that supports students to enhance their critical thinking skills with the suitable methods and strategies. Watson and Glaser (2010) explained that in order to improve critical thinking skills at the intermediate level is by encouraging students to gather enough information so it can indirectly analyze the arguments objectively and make conclusions based on the interpretation of the right evidence. One of the learning strategy which emphasize on the information is Challenge Based Learning especially on the question guide step, activity guide, and resource guide (Apple Education, 2008; 2011). The results of some previous studies and this study also showed that there is a need for basic standards as a minimum critical thinking skills that must be achieved by the Biology student teachers to become a qualified Biology teacher.

CONCLUSION

The Biology student teachers ability is in the intermediate level with the average of 61.39. The lowest ability is in the ability to make conclusion (sub ability to make inference) with the average of 27.14 and a highest ability is on the ability to evaluate argument with the average of 79.39.

REFERENCES

Abdi, A. 2012. A Study on The Relation of Thinking Styles of Students and Their Critical Thinking Skills. *Procedia-Social and Behavioral Sciences*, 47, 1719–1723.

Akgun, A. & Duruk, U. 2016. The Investigation of Preservice Science Teachers' Critical Thinking Dispositions in the Context of Personal and Social Factors. *Science Education International,* 27 (1): 3-15.

Akkaya, N. 2012.The Relationship Between Teacher Candidate's Critical Thinking Skills and Their Use of Reading Strategies. *Procedia - Social and Behavioral Sciences*, 47: 797–801.

Allammakhrah, A. 2012. *Learning Critical Thinking in Saudi Arabia: Student Perceptions of Secondary Pre-Service Teacher Education Programs. Journal of Education and Learning*, 2(1): 197-210.

Anderson, L.W., Krathwohl, D.R., Airasian, P.W., Cruikshank, K.A., Mayer, R.E., Pintrich, P.R., Ranths, J. & Wittrock, M.C. 2001. *A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman.

Apple Education. 2011. *Challenge Based Learning: A Classroom Guide*. (Online). (http://ali.apple.com/cbl/global/files/CBL_Paper.pdf), accessed on July 17, 2016.

Apple Education. 2008. *Challenge based learning: Take Action and Make a Difference*. (Online) (http://ali.apple.com/cbl/global/files/CBL_Paper.pdf.), accessed on July 17, 2016.

Bahr, N. 2010. Thinking Critically about Critical Thinking in Higher Education. *International Journal for the Scholarship of Teaching and Learning*, 4(2): 1-16.

Bakir, S. 2015. Critical Thinking Disposition of Pre-Service Teacher. *Educational Research and Reviewe,* 10 (2): 225-233.

Carlan, F.A., Sepel, L.M.N., & Loreto, E.L.S. 2014. Teaching Cell Biology In Primary Schools. *Education Research International*, 1-5.

Cekin, A. 2015. The Investigation of Critical Thinking Dispositions of Religious Culture and Ethics Teacher Candidates (The Case of Ankara University and Kastamonu University in Turkey). *Journal of Education and Learning*, 9 (2): 158-164.

Cimer, A. 2012. What Make Biology Learning Difficult and Effective: Student's View. *Educational Research and Reviews*, 7 (3): 61-71.

Duron, R., Limbach, B., & Waugh, W. 2006. Critical Thinking Framework For Any Discipline. *International Journal of Teaching and Learning in Higher Education,* 17(2): 160-166.

Elder, L. & Paul, R. 1994.Critical Thingking: Why We Must Transform Our Teaching. *Journal of Developmental Education.* 18 (1): 34-35.

Gedik, H. 2013. Social Studies Teacher Candidates' Critical Thinking Skills. *Procedia - Social and Behavioral Sciences*, 93(2013): 1020–1024.

Gojkov, G., Stojanovic, A., & Rajic, A. G. 2015. Critical Thinking of Students-Indicator of Quality in Higher Education. *Procedia-Social and Behavioral Sciences,* 191, 591–596.

Gunn, T.M., Grigg, L. & Pomahac, G. 2008. Critical Thinking in Science Education: Can Bioethical Issues and Questioning Strategies Increase Scientific Understandings?. *Journal of Educational Thought*, 42(2):165-183.

Kezer, F. & Turker, B. 2012. Comparison of the Critical Thinking Dispositions of (Studying in the Secondary Science and Mathematics Division) Preservice Teachers, *Procedia - Social and Behavioral Sciences*, 46, 1279–1283.

Lai, E.R. 2011. *Critical Thinking: A Literatur Review*. New Jearsey: Pearson.

Lin, T., Liang, J., & Tsai, C. 2014. Conceptions of Memorizing and Understanding in Learning, and Sel-Efficacy Held by University Biology Majors. *International Journal of Science Education*, 37 (3): 446-468.

Monsour, C.G. 2011. *The Effects of Literacy Intervention In High School Biology*. Unpiblished Master Thesis. Sains Education Montana State University.

O'Hata, K.E. 2014. From Filtering to Freire: Critical Use of the Internet in Urban Classrooms. *Journal of Arts and Humanities (JAH)*, 3 (6): 9-15

Qamar, F. 2016. Effectiveness of Critical Thinking Skills for English Literature Study with Reader Response Theory: A Review of Literature. *Journal of Arts dan Humanities*, 5 (6): 37-50.

Ranaweera, P. 2008. *Importance of Information Literacy skills for an Information Literate Society*. (Online) (https://core.ac.uk/download/pdf/11884153.pdf), accesed on September 19, 2016.

Rusdi, S.H. & Umar, I.N. 2015. Students' Levels Of Critical Thinking, Supportive Behaviors And Types Of Questions In An Online Forum Learning Environment. *Procedia-Social and Behavioral Sciences*, 197, 1752–1758.

Smith, V.G & Szymanski, A. 2013. Critical Thinking : More Than Test Scores. *NCPEA International Journal of Educational Leadership Preparation*, 8(2), 16–26.

Suciati, R. 2015. *Perbedaan Kemampuan Berpikir Kiritis Mahasiswa antara Model Problem Based Learning dengan Model Ekspositori pada Matakuliah Evolusi* [*The Differences between the Students' Critical Thinking Ability critical between Problem Based Learning Model and Expository Model on Evolution lecture*]. Paper presented at Seminar Nasional Pendidikan Biologi 2015, Malang, 21 March.

Wallace, E.D. & Jefferson, R.N. 2013. Developing Critical Thinking Skills for Information Seeking Success. *New Review of Academic Librarianship*, 19: 246–255.

Watson, G. dan Glaser, E.M. 2012. *Watson-Glaser™ Critical Thinking Appraisal User-Guide and Technical Manual*. UK: Pearson Education Ltd.

Weissinger, P.A. 2004. Critical Thinking, Meta-cognition, and Problem-Based Learning. In *Enhancing Thinking through Problem Based Learning Approach: International Perspectives*, *O.S.Tan (Ed.)*. Singapore: Thomson.

Wibowo, Y., Widowati, A., dan Wijaya, A. 2012. *Peningkatan Kemampuan Berpikir Kritis dan Kerjasama Mahasiswa melalui Pendekatan Inquiry pada Mata Kuliah Pendidikan Sains [the improvement of students' critical thinking skill and Cooperation through inquiry approach in Science Education Lecture]*. Paper presented at Seminar Nasional Pendidikan IPA, Yogyakarta, 6 October.

The Effects of Scientific Inquiry-Based Instruction in Lectures on Students' Scientific Knowledge of Acid-base Chemistry

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Abstract: The purpose of this study was to develop lecturing materials based on scientific inquiry-based in lecture and investigate the effects of the developed lecturing materials on students' scientific knowledge of Acid-base Chemistry. The study involved 54 first year pre-service chemistry teacher from two classes of a basic chemistry course taught by different lecturers with equal teaching experience. One of the class was assigned to the control group (N=27) and was taught with traditional strategy, and the other class was assigned as experimental group (N=27) which received scientific inquiry-based materials in lectures. The Scientific Knowledge Test Instruments was used to collect data after the study as post-test. The results showed that the experimental group's score of scientific knowledge on Acid-base Chemistry (M = 15.8, SD = 2.83) was higher than the control group (M = 12.1, SD = 2.84) with a *d*-effect size of 1.31 (much larger than typical). T-test analysis yielded *t* (df = 26) = 5.218, p = 0.000 (two-tailed). This indicates that the implementation of the new lecturing material developed in this study strongly improves students' scientific knowledge of Acid-base Chemistry compare with traditional strategy.

Keywords: new lecturing material; scientific inquiry-based instruction in lectures; scientific knowledge; acid-base chemistry.

Acid-base concepts have become objects of science education research for a long time (Cros et al., 1986; Hand, 1989; Kind, 2004; Lin & Chiu, 2010; Bayrak, 2013; Damanhuri et al., 2016). At least, there are two crucial problems related to students' understanding of Acid-base Chemistry (Kind, 2004; Lin & Chiu, 2010; Artdej et al., 2010; Kala et al., 2013; Bayrak, 2013). The problems are students' misconception and unscientific students' mental model. Misconception or alternative conception is the most common problem of students' understanding on acid-base concepts. Several alternative conceptions on this topic have been uncovered by some researchers, e.g. Neutralization is the division of an acid or something becoming different from an acid (Kind, 2004); there is neither H^+ nor OH^- ions in the resulting solutions at the end of all neutralization reactions (Demircioglu, 2009); more bubbles produced by a strong acid upon reaction with metal than a weak acid (Artdej et al., 2010); pH was a represent of the solution acidity, while pOH was a measurement of the solution basicity (Kala et al., 2013); and compound containing OH group likes CH_3COOH is a base (Bayrak, 2013).

In light of mental model, Lin & Chiu (2007; 2010) found out four students' mental model for acid-base concepts, i.e. the scientific model which based on Arrhenius Model, the Phenomenon Model which based on macroscopic characteristics, the Character-Symbol Model which based on names of functional groups of substance, and the Inference Model which based on inference of characteristics. Resembling to these finding, most of the students also had poor understanding to draw weak and strong acids (Kala et al., 2013).

Worksheets Developed to Improve Instructional Affectivity

Some of the instructional strategies have been developed to reduce instructional problems of Acid-base Chemistry (Bilgin, 2009; Demircioglu et al., 2005; Demircioglu, 2009; Ozmen et al., 2009; Rahayu et.al., 2011; Kala et al., 2012; Georgiou and Sharma, 2015; Gordon et al., 2015; Julien and Lexis, 2015; Naiker and Wakeling, 2015; Wegener et al., 2015; Williamson et al., 2015). However, problems related to students' understanding on Acid-base Chemistry have not been solved completely. Needs assessment of basic chemistry instruction showed that most of university students applied the low level of cognitive skills and learned by rote learning (Muntholib et al., 2014). This condition to be a challenge for educators to develop instructional strategies can be used to improve students' cognitive skills and knowledge and to reduce students' alternative concepts. Some diagnostic tests can be used to measure the change in students' conceptions has also been developed (Wattanakasiwich et al., 2013; Tongchai et al, 2009). This research focuses on developing new lecturing materials based on scientific inquiry using in lecture to improve to the students' scientific knowledge of Acid-base Chemistry.

In the context of Indonesian Education, starting from 2013 the government has implemented new curriculum (Curriculum 2013) for elementary and secondary education. The curriculum emphasizes on three kinds of learning outcomes namely: attitudes both social and spiritual, scientific knowledge, and skills (Minister of Education and Culture Republic of Indonesia Regulation Number 59 the year 2014). The skills in this regulation mean scientific processes or scientific inquiry or scientific methods and instruction that applied this skills is called as the scientific approach. The Scientific approach consists of five learning experiences namely observing, questioning, experimenting, associating, and communicating. As a consequence, every competence standard or performance expectation in Indonesian curriculum consist of two kinds of competency, scientific (content) knowledge and scientific inquiry skill competencies.

The main problem in implementing scientific inquiry-based curriculum is the low of pre- and in-service teacher's competencies to do scientific inquiry (Lustick, 2009; Dudu & Vhurumuku, 2012; Capps & Crawford, 2013). Lustick (2009) reported the failure of a project conducted to help teacher candidates (master's program) acquire the skills, knowledge, and dispositions necessary to foster learning through inquiry. Dudu & Vhurumuku (2012) revealed that teachers varied considerably in how they attempted to engage learners in the active search for knowledge, from structured methods of close-ended inquiry to some form of open-ended inquiry. Capps & Crawford (2013) showed that the majority of teachers held limited views of inquiry-based instruction. The views were reflected in the teacher's teaching practice. More than half of teachers doing the teaching practice did not reveal elements of inquiry including understandings of essential features of and abilities to do scientific inquiry. Our preliminary survey showed that prospective-teachers' understanding on scientific inquiry did not meet our expectations. This evidence suggests that teachers preparation that hat are expected to apply scientific inquiry approach in their teaching practices are not easy and should be started from universities' teaching-learning processes.

The School Scientific Inquiry

The term inquiry refers to at least three distinct categories of activity (Minner et al., 2010), i.e. pure, classroom, and pedagogical scientific inquiry. Pure scientific inquiry (SI) or what scientists do refers to the characteristics of the process through which scientific knowledge is developed, including the conventions involved in the development, acceptance, and utility of scientific knowledge (Schwartz et al., 2004). The second classification is cclassroom scientific

inquiry or how students learn talks about activities conducting by students in order to inquire knowledge and skills through thinking and doing on a phenomenon or problem, often mirroring the processes used by scientists. The last division of scientific inquiry, pedagogical scientific inquiry, looks up the teachers' activities in order to facilitate students for doing investigations. However, whether it is the scientist, student, or teacher who is doing or supporting inquiry, the act itself has some core components. The NRC (1996; 2000) in National Science Education Standards (NSES) described these core components from the learner's perspective as "five essential features of classroom inquiry" as follows:

1) Learners are engaged by scientifically oriented questions.
2) Learners give priority to evidence, which allows them to develop and evaluate explanations that address scientifically oriented questions.
3) Learners formulate explanations from evidence to address scientifically oriented questions.
4) Learners evaluate their explanations according to alternative explanations, particularly those reflecting scientific understanding.
5) Learners communicate and justify their proposed explanations.

Inquiry and the Scientific Approach

Curriculum 2013 applied in all levels of Indonesian school uses the scientific approach as the official instruction. The scientific approach comprises five learning experiences namely observing, questioning, experimenting, associating, and communicating. Each learning experience provides students with opportunities to construct understanding within the context of their experiences consistent with science as inquiry. Table 1 depicts teaching-learning activities of scientific approach learning experiences of official Indonesian curriculum.

Table 1 Teaching-learning Activities of Scientific Approach of Official Indonesian School Curriculum (Modified from Regulation of Indonesian Minister of Education and Culture Number 59 the year 2014)

Learning Experiences of Scientific Approach	**Teaching-learning Activities**
Observing	• Observe or read or hear initial phenomenon(a) to emerge question(s).
Questioning	• Constructs, identify, and asks questions such as, "Why did this happen?" "What kind of matter could show the phenomenon?" Shows interest in the topic. • Formulate hypotheses.
Experimenting	• Designs and conducts an experiment or other way to collect data or evidences. • Analyze and interpret data and draw conclusions.
Associating	• Develops meaning to the evidence or conclusions and formulate explanations from them. • Discuss and evaluate explanations based on scientific criteria and current knowledge. • Develops law or mathematical formula and solves problems.
Communicating	• Constructs any form of representation or media for presenting data, evidence, or conclusions. • Forms reasonable and logical argument to communicate explanations. • Demonstrate problems solving. • Listens critically to others' explanations • Checks for understanding among peers

Purpose of the Study

The evidence for the effectiveness of inquiry-based instruction is conclusive. The experiment conducted by Wilson et al. (2010) showed that students in the inquiry-based class got significantly higher levels of scientific knowledge than students experiencing commonplace (direct) instruction, both assessments performed immediately following the instruction or conducted four weeks later. Unfortunately, inquiry models developed in the previous study were not fully compliant with the basic chemistry curriculum in university. In university, the contents of a science or a branch of science were divided into two courses, the science itself (theoretical course) and laboratory work of the science. Basic chemistry contents, for instance, are broken down into two courses, basic chemistry (theoretical course) and laboratory work of basic chemistry (experimental course). Basic Chemistry Course emphasizes understanding of chemistry concepts and theories and is usually given using lecturing method. Laboratory Work of Basic Chemistry Course underlines laboratory motoric skills by confirming concepts gained in the theoretical course. This separation can lead to loss of scientific inquiry understanding and competencies to do scientific inquiry from intended learning outcomes of science instruction. Therefore, the learning outcomes of scientific inquiry understanding and competency to do scientific inquiry should be defined explicitly prior to basic chemistry and laboratory work of basic chemistry instruction. This research explicitly defines the learning outcome of scientific inquiry understanding to prior to Basic Chemistry instruction. Learning experience of "experimenting or doing the investigation" of the official scientific approach of Indonesian school scientific inquiry (Minister of Education and Culture Republic of Indonesia Regulation Number 59 the year 2014) or "gives priority to evidence" in five essential features of school scientific inquiry (NRC, 2000) was dropped. Instead, we provide experimental data from secondary sources and the scientific inquiry-based instruction developed in this research is called as scientific inquiry-based instruction in lecture. Nevertheless, we only investigate the ipact of implementation of this instructional strategy to the students' scientific knowledge. As a comparison, we used traditional or direct instruction strategy as the control. Therefore, the research question addressed in this research is:

> Would the scientific inquiry-based instruction in lecture or traditional instruction strategies be more effective in improving university students' scientific knowledge about the chemistry of acid-base contents?

METHODS

Research Design

The study utilized a posttest only quasi-experiment design (Creswell, 2012). We were unable to assign the students randomly to the experimental or control groups due to the constraint of the context in which students' distribution to the groups ruled by institution. Independent variables of the research are two kinds of instructional strategy namely scientific inquiry-based instruction in lecture (X) and traditional instruction (Y). The dependent variable of the research is students' scientific knowledge on acid-base chemistry.

Subjects, Participants, Course, and Program

The subjects for this study were fifty-four of first-year university students from Study Program of Chemistry Education State University of Malang. Two lecturers, each of which had one class, participated in the study. One of the lecturer and his class was assigned to the

experimental group, while the other lecturer and his class became the control group. Both of lecturers had 21 years of lecturing experience with various kinds of instructional approach and strategies. From this, we can say that those lecturers had the similar experience in teaching chemistry.

The basic chemistry contents in the Chemistry Education Program, State University of Malang, is divided into two courses, basic chemistry itself (theory) and laboratory work of basic chemistry subjects. The basic chemistry subject consists of four 50-minute periods per week. The lecturer conduct lectures in the classroom set without experimental aids, usually using chalk and talk and power point only. The main goal of the basic chemistry course understands the basic concepts of chemistry as a foundation for studying advanced chemistry concepts (Department of Chemistry, State University of Malang, 2014).

The Scientific Inquiry-Based Instruction in Lecture Material

The scientific inquiry-based instruction in lecture material was designed to help students to: a) construct question based on confirmed prior knowledge and limited experimental data, b) analyse given data, look for correlation among variables, and make conclusion, c) make interpretation and give explanation to the conclusion, and deep understanding, d) correlate to other concepts and mathematic implication, e) communicate in the group or classical discussion and evaluation, f) reflect what they have studied, what difficulty they have met, and what they have to do to be better, and g) independent practise (drill) and confirmation feedback of their work.

To develop such material, we examined a number of related resources such as the Indonesian Curriculum for Senior High School Chemistry Subject, Undergraduate Chemistry Education Program Curriculum, and chemistry's teacher lesson plan for Chemistry of Acid-base Topic, and classroom observation of teaching and learning processes. Based on these examinations, we developed a worksheet for six instructional processes aiming to construct an understanding of acid-base chemistry concepts and scientific inquiry. One of the worksheets used in this study is shown in Table 2. As can be seen from the table, each worksheet consists of three sections. They are an introduction that consists of confirmation of prior and prerequisite knowledge and remembering students to scientific inquiry; instructional processes using scientific inquiry-based instruction in lecture strategy; and closure. The scientific inquiry-based instruction in lecture material was first piloted to the first year of chemistry education class consisting of thirty-three students. During the pilot study, we carried out classroom observation, informal students' interview, and tests. Based on the result of the pilot study, the scientific inquiry-based instruction in lecture material was revised and used in this study.

Table 2 Example of a worksheet used in experimental group, Scientific Inquiry-based Instruction in Lecture

Introduction: Confirmation of students' understanding on acids, bases, and salts: (1) Salts are formed when neutralization reaction is occurred, (2) Acids, bases, and salts undergo dissociation if dissolved in water to be their ions, and (3) In their solution, salts, and strong acid-base undergo completely dissociation, while weak acid-base undergo partially dissociation.		
Main Activities:		
Scientific Inquiry Skills:	Scientific Knowledge:	Teaching-learning Activities:
• Construct and ask questions	Salt solution can be acid, neutral, or base.	Students are shown data that ammonium chloride solution is acid, sodium chloride solution is neutral, and sodium bicarbonate solution is base.

		Students are guided to construct and ask questions such as: (1) Why can salt solution be acid, neutral, or base? (2) What kind of salt does produce acid solution?
• Analyse data and draw conclusion.	All salts produced by neutralization reaction of strong acid and weak base are acid.	Students are given data about salts in which their solutions are acid. Students are guided to analyse data and draw conclusion that all salts produced by neutralization reaction of strong acid and weak base are acid.
• Interpret and draw explanation to the conclusion, and deep understanding.	Cation of a salt mirrors properties of the base from which it comes, while the anion of a salt shows properties of the acid from which it is originated.	Students are guided to connect properties of salt solutions and properties of acids and bases from which the salt come to show that acidity or basicity of a salt solution related to acid or base from which it is originated.
• Correlate to other concepts and mathematic implication.	K_a = [H^+][anion of a weak acid] K_b = [OH-][cation of a weak base] $K_w = K_a$ X K_b	Students are guided to understand that hydrolysis of anion of week acid (or cation of week base) produces week acid, anion of the week acid, and OH^- (decreasing concentration of H^+ ion). The species of week acid, anion of the week acid, and H^+ ion in a solution will form an equilibrium with constant K_a. Students are guided to correlate K_a or K_b of an acid or a base in a hydrolyzed slat to K_w.
• Communicate in the groups or classical discussion and evaluation.	-	Students are guided to communicate and justify the explanations and conduct argumentation.
Closure: Summary; Students' reflection on what they have studied, what difficulty they have met, and what they have to do to be better; and independent practice (drill) and confirmation feedback of their work.		

Teaching Intervention

Both experimental and control group lecturers were invited to a meeting before conducting research to understand the goal of the research, the treatment for the experimental group as well as control group, and the essential difference between the two. The researchers also held meetings as often as necessary to correct any misuse of the scientific inquiry-based instruction in lecture as a teaching strategy. Both experimental and control groups were observed during the implementation of lecturing strategies. In a typical instructional sequence, while the experimental lecturer tried to help students analyze data and evidence, draw conclusions, interpret and explain conclusions, and construct the reasonable and logical argument, the control group lecturer used a lecturer-centered approach mainly involving talk and chalk sessions.

The two groups spent equal time studying the chemistry of acid-base. However, the lesson in the experimental group focused on the prepared worksheets that represents the scientific inquiry-based instruction in lecture materials and were designed to develop cognitive skills and students' understanding on acid-base concepts. As an example, the implementation procedure of one of the worksheets is described below:

The first stage of each worksheet was addressed to check students' prior knowledge and misconceptions (Table 2) which were assessed by the teacher as well as the constructed pre-requisites needed for learning the coming up lesson. This was used at the start of the lesson to prepare students as they are ready to learn.

The second stage of each worksheet was addressed to develop students' scientific knowledge using scientific inquiry skills i.e.: construct and ask questions; analyze data and

draw conclusion; interpret and draw explanation to the conclusion, and deepen the understanding; correlate to other concepts and mathematic implication; and communicate in the group or classical discussion and evaluation. The lecturer's role in the teaching-learning activities was as guidance.

The third stage of each worksheet was addressed to make an overview of scientific inquiry and scientific knowledge in the form of the summary. In addition, in this stage students were asked to reflect what difficulty they have encounter in the teaching-learning process and what they have to do to increase their understanding on scientific inquiry and scientific knowledge. To reinforce understanding, students also received independent practice (drill) and confirmation feedback on their work.

Instruments

Thirty-two items of multiple-choice test related to the scientific knowledge were constructed for the purpose of assessing students' understanding on acid-base concepts. Each item involved one scientifically acceptable answer and four reasonable and plausible distracters, including common misconception revealed in previous studies. During the development of the instrument, the following steps were taken into consideration. First, instructional objectives of Acid-base Chemistry were determined. Second, the literature related to Acid-base Chemistry and students' misconception on acid-base concepts was reviewed. And then, the result of the review was used to develop the multiple-choice items of scientific knowledge of acid-base chemistry. One example of items used in this instrument is shown in Table 3.

Table 3. An example of problems used in the instrument

8. Aqueous solutions of $HClO_3$,$HClO_4$, H_2SO_3, H_2SO_4,and H_3PO_4have the same concentration (Ar P = 15; S = 16; Cl = 17). Which one has the highest first ionization degree? A. $HClO_3(aq)$ D. $H_2SO_4(aq)$ B. $HClO_4(aq)$ E. $H_3PO_4(aq)$ C. $H_2SO_3(aq)$

The correct answer of this problem is option B. The common misconception in this problem is that "the number of hydrogen atoms in a substance indicates the strength of an acid".

For the purposes of content validation and reduction of errors, the instrument was examined by a group of experts consisting of three chemistry lecturers who had experience for over twenty years at The Faculty of Mathematics and Science State University of Malang. These experts checked the fidelity of the scientific knowledge and determined the acceptable correct choice for each item of the instrument. In addition, the instrument was piloted to ninety first-year students from Faculty of Mathematics and the Science State University of Malang who were taking Basic Chemistry Subject. For the reliability of the instrument, an analysis was made producing 25 items (elected from 32 items on the initial instrument) as a final instrument of students' scientific knowledge of Acid-base Chemistry (the final instrument is enclosed herewith). The alpha reliability coefficient (KR20) of the final instrument was 0.762 ($r_{\text{-table}}$ = 0.2; status = reliable; degree = high). Students completed this instrument in a 75 minutes period.

RESULTS AND DISCUSSION

The instrument of students' scientific knowledge of Acid-base Chemistry was administered to both the experimental and control group students after the instruction.

Homogeneity of the experimental and control groups were determined using students' final test score of General Chemistry I subject of the previous semester. No statistically significant mean difference was found between the two groups with respect to the General Chemistry I final test score t (df = 26) = 0.493, p = 0.626 (two-tailed), indicating that students in the experimental and control groups were similar in respect of the variable. As there were no significant differences between the experimental and the control groups on the General Chemistry I final test score, the post-tests scores of the groups could be compared using an independent *t-test*.

The question of the research is whether the scientific inquiry-based instruction in lecture material or traditional instruction will be more effective in improving university students' scientific knowledge on Chemistry of Acids and Bases. The data showed that university students' scientific knowledge on the chemistry of acid-base of the experimental group (M = 15.8, SD = 2.83) was higher than the control group (M = 12.1, SD = 2.84). Table 4 shows that t-test analysis using SPSS program yielded t (df = 26) = 5.218, p = 0.000 (two-tailed). It suggests that the means difference between a pair of data sets are statistically significant. In another word, the scientific inquiry-based instruction in lecture implemented in this research is more effective in improving university students' scientific knowledge on the chemistry of acid-base than the traditional instruction one.

Table 4. Paired Sample Tests of the Experimental and Control Groups in Scientific Knowledge

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Experimental group - Control Group	3.70370	3.68797	.70975	2.24479	5.16262	5.218	26	.000

This study found that students receiving scientific inquiry-based instruction in lecture reached significantly higher levels of scientific knowledge than those experiencing traditional or direct instruction. A reason for this is that the scientific inquiry-based instruction in lecture is appropriate to acid-base concepts. As described before, Scientific Inquiry-Based Instruction in lecture material emphasizes reasoning and connecting that relate one concept to another. Also, Acid-base Chemistry related to many other chemistry concepts, such as the particulate nature of matter, electrolyte, oxidation and reduction, and chemical equilibrium. This study therefore contributes to the growing body of evidence demonstrating the effectiveness of inquiry-based instruction and supports the advocacy for inquiry-based instruction stated in national and international science education documents (NRC, 1996, 2000, 2012; Ministry of Education and Culture Republic of Indonesia, 2013). The finding from this study is similar to the findings by Wilson et al. (2010), especially the scientific knowledge learning goal.

The scientific inquiry-based instruction in lecture is the instruction strategy that exploits scientific inquiry method to build students' understanding on science (scientific knowledge, scientific inquiry competencies, and nature of science) without using laboratory facilities. The main difference between the scientific inquiry in lecture and real classroom scientific inquiry reside in learning experience of "give priority to evidence" in five essential features of school scientific inquiry (NRC, 2000) or "experimenting" in the scientific approach (Ministry of Education and Culture Republic of Indonesia, 2013), especially data collection step. In the scientific inquiry in lecture, data are collected from secondary resources like textbooks, reports and journals, and sometimes demonstrations by lecturers or their assistant. Whereas the real classroom scientific inquiry, data are primarily collected from primer resources. In other words,

the scientific inquiry in lecture changes data collection skills from primary resources in the real classroom scientific inquiry (laboratory activities) to secondary resources.

The scientific inquiry-based instruction in lecture involves investigations that begin with what the student already knows (both prior knowledge and facilitated knowledge); followed by formulating question(s); then data collection (planning and doing investigation) and analysis; and finally constructing and discussing explanation based on data, conclusion(s) and evidence(s), and connecting the finding with scientific explanations. In instructional processes, university students are engaged in learning content as well as how to organize and reason about the content, doing activities as well as control, reflect upon and evaluate their learning, and scaffold for working together to discuss evidence and connect their findings with scientific explanations. By these processes, university students retrieve and apply their ideas to capture phenomena, pattern, and deviation of the pattern; formulate question(s); plan and conduct investigation; analyze data; understand deep meaning of phenomena, pattern, deviation of the pattern, and conclusion; develop and construct explanations based on evidence, and connect their findings with scientific explanations. These mind activities improve students' reasoning and argumentation that finally promote their competencies to solve problems.

The measurement of scientific knowledge in this study emphasized the students' deep understanding that facilitates the retrieval and application of ideas as well as the development and construction of evidence-based explanations. Subsequently, students in the scientific inquiry-based instruction in lecture group performed better in assessment. This result is in line with previous reasons for an experimental group where students activated their mind for learning so that their learning outcome was better. On the other hand, traditional science instruction is largely focused on a knowledge transmission from lecturer or learning materials to the learner. The process emphasized more on scientific knowledge and less on scientific competencies, including reasoning and argumentation. So, it's reasonable if control group students did not perform as well as experimental group students in scientific knowledge test in which the problems were constructed based on the deep understanding, reasoning, and argumentation.

Outcomes in this research may contribute to improving quality of education, especially for chemistry instruction in education institution with limited laboratory facilities. Indonesian education, like other developing countries, has limited facilities, including chemistry laboratory. This situation demands instructor to design non-laboratory instruction that pays attention to the character of science and students' learning outcome when learning science, i.e. scientific knowledge, scientific inquiry competencies (scientific inquiry knowledge and skills), and nature of science (Hodson, 1992; Levy et al. 2011). With slightly different meaning, NGSS (Next Generation Science Standard) uses term core ideas for scientific knowledge, practices for scientific inquiry competencies, and crosscutting concepts for nature of science (NRC, 2012).

The research outcomes also can be used to reduce negative impact of basic chemistry contents separation, i.e. to be theoretical basic chemistry and laboratory work of basic chemistry courses. This separation pays less attention to aspects of scientific inquiry knowledge and skills and nature of science. Therefore, scientific inquiry-based instruction in lecture strategy can be used to overcome the limitation in schools' laboratory facilities and separation of basic chemistry contents into basic chemistry and laboratory work of basic chemistry in instruction of university chemistry.

The Difficult Sub-topic of Acid-base Chemistry for University Student

The most difficult sub-topic of Acid-base Chemistry for university students in this study was salt hydrolysis concept. This result was consistent with Demircioglu (2009) which shown

that students hold many misconceptions in salt hydrolysis concept, i.e. all salts are neutral and salts don't have a value of pH.

In this instrument salt hydrolysis was assessed by problems number 14 and 25 as provided in the following boxes:

14. Which of the following salts undergoes hydrolysis?
A. $NaNO_3(aq)$ B. $Ca(NO_3)_2(aq)$ C. $Mg(NO_3)_2(aq)$
D. $Ba(NO_3)_2(aq)$ E. $Sr(NO_3)_2(aq)$

Among 54 participants, only five students gave the right answer. Four of them were from the experimental group, and one was from the control group. For solving this problem, students have to connect this concept to three other understandings, they are salts coming from weak acids or bases only that undergoes hydrolysis, all bases of alkali metals are a strong base, and the alkalinity of bases of alkaline earth metals increases from top to bottom of the periodic table. The right answer is C as $Mg(NO_3)_2$ comes from strong acid HNO_3 and weak base $Mg(OH)_2$. So, only Mg^{2+} of the salt that undergoes hydrolysis as follow:

$Mg^{2+}(aq) + H_2O(l) === Mg(OH)_2(aq) + 2OH^-(aq)$

25. Check the truth and the logic of each of the following statements and then choose:
A. IF statement I is true; statement IIis true; statement III is the logic consequence of statement I and statement II.
B. IF statement I is true; statement II is true; statement III is not the logic consequence of statement I and statement II.
C. IF statement I is true; statement II is fault; statement III is not the logic consequence of statement I and statement II.
D. IF statement I is fault; statement II is true; statement III is not the logic consequence of statement I and statement II.
E. IF statement I and II are fault; statement III is not the logic consequence of statement I and statement II.
The statements:
(I) In equivalent point, the concentrations of acid and base are the same.
(II) In end point of titration, the color of indicator changes from acid condition to base and conversely.
(III) In titration, end point and equivalent point are the same.

For this problem, from 54 participants only five students gave the right answer. As in problem number 14, there were four students from the experimental group and one from the control group who chose the right answer. To solve this problem, students have to understand the concepts of equivalent point, the concentration of OH^- ion, H^+ ion, acid substance, and base substance, the end point of the acid-base titration, and the change of indicator color. It is difficult for most students to understand the difference between the concentration of OH^- ion and base substance or concentration of H^+ ion and acid substance, equivalent point and end point of the titration, and neutral solution and change the color of the indicator. As pointed out by Demircioglu (2009), students held the misconception that the indicator helped occurring neutralization reaction, and the indicator changed color at pH of 7. So the right answer of this problem is D.

CONCLUSIONS AND IMPLICATIONS

This study has developed and investigated the effectiveness of a new instructional strategy which we named it scientific inquiry-based instruction in lecture. The instructional strategy was proven to be effective to increase students' understanding on scientific knowledge

of Acid-base Chemistry. The result implies that the scientific inquiry in lecture instructional strategy developed in this study can be applied in university as chemistry instruction for reducing the negative impact of Basic Chemistry Content separation (into Theoretical Basic Chemistry Course and Laboratory Work of Basic Chemistry Course) and in school for overcoming the limitation of laboratory facilities.

This study also shows that salt hydrolysis is the most difficult topic of Acid-base Chemistry concepts. The result is in line with of Demircioglu's finding (2009). As we know, to understand this topic, student need to understand other fundamental chemistry concepts, such as weak and strong electrolytes, chemical equilibrium, mole, nature of solutions, particulate nature of matter, chemical reactions and chemical change (Demircioglu, 2009). This result also supports the important of students' prior knowledge or prerequisite concepts confirmation before moving to learn to more complex concepts.

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REFERENCES

Artdej, R., Ratanaroutai, T., Coll, R.K. & Thongpanchang, T. 2010.Thai Grade 11 students' alternative conceptions for acid—base chemistry.*Research in Science & Technological Education,* 28(2), 167-183.

Bayrak, B.K. 2013. Using Two-Tier Test to Identify Primary Students' Conceptual Understanding and Alternative Conceptions in Acid-base. *Mevlana International Journal of Education (MIJE)*, 3(2), 19-26.

Bilgin, I. 2009. The effects of guided inquiry instruction incorporating a cooperative learning approach on university students' achievement of acid and bases concepts and attitude toward guided inquiry instruction. *Scientific Research and Essay*, 4(10), 1038-1046.

Capps, D.K., & Crawford, B.A. 2013. Inquiry-Based Instruction and Teaching about Nature of Science: Are They Happening? *Journal of Science Teacher Education*, 24: 497–526

Creswell, J.W. 2012. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research.* 4th Ed. Boston: Pearson Education, Inc.

Cros D., Maurin M., Amouroux R., Chastrette M., Leber J. & Fayol M. 1986. Conceptions of first-year university students of the constituents of matter and the notions of acid-base. *European Journal of Science Education*, 8, 305-313.

Damanhuri, M.I.M., Treagust, D.F., Won, M., Chandrasegaran, A.L. 2016. High School Students' Understanding of Acid-BaseConcepts: An Ongoing Challenge for Teachers. *International Journal of Environmental & Science Education, 11*(1), 9-27.

Demircioglu, G. 2009. Comparison of the effects of conceptual change texts implemented after and before instruction on secondary school students' understanding of acid-base concepts. *Asia-Pacific Forum on Science Learning and Teaching*, 10(2): 1 – 29.

Demircioğlu, G., Ayas, A., & Demircioğlu, H. 2005. Conceptual change achieved through a new teaching program on acids and bases. *Chemistry Education Research and Practice, 6*(1), 36-51.

Department of Chemistry, State University of Malang. 2014. Katalog 2012 Jurusan Kimia FMIPA UniversitasNegeri Malang.

Dudu, W.T, &Vhurumuku, E. 2012. Teachers' Practices of Inquiry When Teaching Investigations: A Case Study. *Journal of Science Teacher Education*, 23:579–600.

Georgiou, H. & Sharma, M.D. 2015. Does using active learning in thermodynamics lectures improve students' conceptual understanding and learning experiences? *European Journal of Physics, 36*, 1-13.

Gordon, T., Sharma, M.D., Georgiou, H, & Hill, M. 2015. Shifting Towards Inquiry-Orientated Learning in a High School Outreach Program. *International Journal of Innovation in Science and Mathematics Education, 23*(6), 63-74.

Hand, B.M. 1989. Students' understanding of acid-base: A two year study. *Research in Science Education*, 19:133-144

Hodson, D. 1992. In search of a meaningful relationship: an exploration of some issues relating to integration in science and science education. *International Journal of Science Education,* 14(5), 541—562.

Julien, B.L. & Lexis, L.A. 2015. Transformation of Cookbook Practicals into Inquiry Oriented Learning. *International Journal of Innovation in Science and Mathematics Education, 23*(5), 32-51.

Kala, N., Yaman, F., & Ayas, A. 2013. The Effectiveness of Predict–Observe–Explain Technique In Probing Students' Understanding about Acid–Base Chemistry: A Case for the Concepts of pH, pOH, and Strength. *International Journal of Science and Mathematics Education*, 11, 555—574.

Kind, V. 2004. *Beyond Appearances: Students' misconceptions about basic chemical ideas.* 2nd Ed.Retrieved on October 18, 2015,from http//:www.rsc.org/images/Misconceptions_update_tcm18-188603.pdf

Levy, P., Lameras, P., McKinney, P., & Ford, N. 2011. The Pathway to Inquiry Based Science Teaching. Retrieved on October 18, 2015 from http//:*www.pathwayuk.org.uk*

Lin, J.W. and Chiu, M.H. 2007. 'Exploring the Characteristics and Diverse Sources ofStudents' Mental Models of Acid-base', *International Journal of Science Education*, 29: 6, 771 — 803

Lin, J. W., Chiu, M.H. 2010. The mismatch between students' mental models of acids/bases and their sources and their teacher's anticipations thereof. *International Journal of Science Education*, 32(12), 1617–1646.

Lustick, D. 2009. The Failure of Inquiry: Preparing Science Teachers with an Authentic Investigation. *Journal of Science Teacher Education*, 20:583–604.

Minister of Education and Culture Republic of Indonesia Regulation Number 59 year 2014.

Minner, D.D., Levy, A.J., & Century, J. 2010. Inquiry-based science instruction—What is it and does it matter? Results from a research synthesis years 1984 to 2002. *Journal of Research in Science Teaching*, 47(4), 474–496.

Muntholib., Rahayu, S., & Nida, S. 2014. Pandangan Dosen Kimia Dasar terhadap Computer-Assisted Inquiry Lecture. *Prosiding Seminar Nasional Kimia 2014*, UNESA Surabaya, September 20,2014.

Naiker, M. & Wakeling, L. 2015. Evaluation of Group Based Inquiry Oriented Learning in Undergraduate Chemistry Practicals. *International Journal of Innovation in Science and Mathematics Education, 23*(5), 1-17

National Research Council. 1996. National science education standards. Washington, DC: National Academy Press.

National Research Council. 2000. Inquiry and the national science education standards. Washington, DC: National Academy Press.

National Research Council. 2012. A Framework for K-12 science education: Practices, crosscutting concepts, and core ideas. Washington, DC: National Academy Press.

Ozmen, H., Demircioglu, G., & Coll, R.K. 2009. A Comparative Study of the Effects of a ConceptMapping Enhanced Laboratory Experience on Turkish High School Students' Understanding of Acid-Base Chemistry. *International Journal of Science and Mathematics Education*,7, 1—24.

Schwartz, R.S., Lederman, N.G., & Crawford, B.A. 2004. Developing views of nature of science in an authentic context: An explicit approach to bridging the gap between nature of science and scientific inquiry. *Science Education*, 88(4), 610–645.

Rahayu, S., Chandrasegaran, A.L., Treagust, D.F., Kita, M., &Ibnu, S. 2011. Understanding Acid-base Concepts: Evaluating the Efficacy of a Senior High School Student-Centred Instructional Program in Indonesia. *International Journal of Science and Mathematics Education.* 9(6):1439-1458.

Tongchai, A., Sharma, M.D., Johnston, I.D., Arayathanitkul, K., & Soankwan, C. 2009. Developing, Evaluating and Demonstrating the Use of a Conceptual Survey in Mechanical Waves. *International Journal of Science Education, 31*(18), 2437–2457.

Wattanakasiwich, P., Taleab, P., Sharma, M.D., & Johnston, I.D. 2013. Development and Implementation of a Conceptual Survey in Thermodynamics. *International Journal of Innovation in Science and Mathematics Education, 21*(1), 29-53.

Wegener, M.J., Doyle-Pegg, M. & McIntyre, T.J. 2015. Heat: An Inquiry-based Physics Laboratory for Life Sciences Students. *International Journal of Innovation in Science and Mathematics Education, 23*(5), 18-31.

Williamson, N.M., Huang, D.M., Bell, S.G. & Metha, G.F. 2015. Guided Inquiry Learning in an Introductory Chemistry Course. *International Journal of Innovation in Science and Mathematics Education, 23*(6), 34-51

Wilson, C.D.,Taylor, J.A., Kowalski, S.M., &Carlson, J. 2010.The Relative Effects and Equity of Inquiry-Based and Commonplace Science Teaching on Students' Knowledge, Reasoning, and Argumentation. *Journal of Research in Science Teaching*, 47(3), 276–301.

Implementation of an Inquiry Learning Model Based on Lesson Study as a Way of Improving Learning Outcomes on Contents Structure and Function of Plant Tissue to Students Senior High Schools in Malang Regency

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Abstract: The observations and interviews with teachers and students of senior high schools in Malang Regency showed that 1) the teachers were implementing the curriculum of 2013, 2) the teachers had already implemented the practical methods yet had not applied the scientific approach, 3) they had not followed the scientific approach of learning process by not implementing performance assessment yet. While result of student interviews showed that the students were bored with the biology lesson due to the many contents that must be memorized. Based on the need analysis which had been done previously, it is necessary to study the implementation of inquiry-based learning according to lesson study in order to improve learning outcomes of the senior high schools in Malang Regency. The method which was used through lesson study activities together with the teachers of senior high schools in Malang Regency, comprised of three stages, namely, plan, do and see. The research was conducted in the 11th Grade of MIA in Malang regency with a total population of 180 students, started from 5th to 28th August 2016. The research was collaboratively conducted within the Biology Teacher Development Group (MGMP) in Malang regency. The lesson study consisted of three cycles. Cycle 1 was conducted in SMAN I Lawang, cycle 2 was in SMAN Kepanjen, and cycle 3 was in SMAN I Bululawang. The instruments used were the observation and interview sheets. The conclusion demonstrated that the implementation of guided inquiry model through lesson study could improve students' learning outcomes, which included the cognitive competence, observation skill by using microscope, and communication skills of 11th Grade students of MIA in Malang Regency.

Keywords: inquiry, lesson study, learning outcomes, senior high schools in Malang regency

In The Ministerial Regulation No. 22 OF 2016 there is shown the learning process that is supposed to be held interactively, inspirationally, favorably, efficiently, and motivating the students to take active participations, as well as providing adequate space for students' creativity and independence. In order to implement these principles in learning activity, the students need to be fully involved to discover a certain concept by their own, while teachers only play a role as the facilitator and moderator. However, the facts in the field have not directed the proof of meaningful learning. Llewelyn (2013) stated that one mode of meaningful learning is inquiry learning. Inquiry learning model is a learning process in which the students takes active participation to gain information and obtain their own knowledge by conducting observation or discussion in order to get a more meaningful learning. This result could be obtained because every stage of inquiry learning is based on the scientific work phases which are able to develop the students' scientific attitudes as well as their scientific skills. Also inquiry learning model emphasizes on systematic, critical, and analytical thinking process to search and discover the answer of the problems they deal by themselves. Therefore, it is expected to be able to grow the students' confidence and awareness toward the meaning of life.

Seraphin (2012) stated that in the learning process and science assessment, including the subject of biology taught by the teacher in high schools, memorizing system is still dominating thus the students' thinking processes are not developed well. Biology learning is supposed to be based on the principle of process skill. The students are supposed to be taught to independently find and develop the fact and the concept. The same condition occurred in various high schools of Malang Regency. From the result of interview and observation in March-April 2014, there was found the condition of some high schools in Malang Regency: 1) the teachers had not systematically implemented scientific approach, 2) the measured value was only in low-domain cognitive, 3) the teachers had not comprehended performance assessment that could be used to measure the good learning achievements, either the competence in attitude, skill, and knowledge. Besides, the interview with students showed that biology subject was still considered boring by many of the students. It was because the teaching and learning processes in class were more directed to students' skill in memorizing, not to the analytical, critical, and systematic process of thinking.

On the other hand, commonly the biology teachers in Malang Regency's high schools were emphasizing more toward material delivery and those were not associated with daily life contexts. As the consequence, the materials were considered abstract and hard to understand by students. One of the examples was from The Basic Competence 3.4., which is the material of the plant's tissue structure and function. In the core activity, the students gain their learning experience by working on students' worksheets. The sheets consisted of pictures of the plant's organs which are composed of tissue structure. Then the students are asked to determine the composer of the outermost plant's tissue until the innermost part. In other learning process there is already practicum method which having the students to conduct observation through microscope. The students do not make their own preparats from the observation material, which is the organ preparat of some certain plants, but use the preserved preparat instead. This will lengthen the gap of science world with the students' realm. Whereas, science could be explored from the students' actual daily life, and this could grow their learning motivations. Crawford (2007) added that the teachers are not ready with such a complex condition thus it is hard for them to design a meaningful learning. The factors affecting the success of teachers in inquiry-based science learning are as the following: 1) the contradictory views among the teachers in school; 2) students' characteristics; 3) the material; 4) the teachers' educational background; 5) teachers' confidence and experience in scientific research. As the effort to overcome these factors, the lesson study-based Biology Teacher Development Group (Musyawarah Guru Mata Pelajaran or MGMP) is needed.

MGMP is a highly effective media for enhancing the competence and professionalism qualities of teachers. This could be seen from the mission and function of MGMP, which becomes the place for teachers to improving their motivation, communication, and studying their difficulties in class, as well as to sharing thoughts in designing learning model effectively and efficiently, in comply with the applicable curriculum (Mulyasa, 2008). Syamsuri and Ibrohim (2011) stated that *lesson study* is the coaching model for educator profession through collaborative and sustainable learning study which is based on the principles of collegiality and mutual learning, as well as to build the learning community. Susilo added one reason of lesson study's importance is that through lesson study activity, the teachers collaboratively try to translate the education's objective and standard into the reality in class. It is begun with the activity of *Plan*, planning the learning equipment; *Do* (conducting) and *See* (observing and reflecting the result of observation). This is suitable with 21th century learning which emphasizing on collaborative learning study.

RESEARCH METHOD

The research was conducted in the 11th grade of MIA in Malang regency, with a total of 180 students, from 5th- 28th August 2016. This research was based on lesson study, comprising three stages which namely, *Plan*, *Do* and *See*. The research was collaboratively conducted within Biology teacher's MGMP in Malang regency. Lesson study consisted of three cycles. Cycle 1 was conducted in SMAN I Lawang, cycle 2 was in SMAN Kepanjen, while cycle 3 was in SMAN I Bululawang. The lesson study consisted of three meetings for each school. There were two classes used as two groups, namely the experimental group and the control group. Overall, there were 18 meetings of lesson study.

The instruments that were used in the research are: 1) Cognitive test problem to know the students' cognitive achievement.2) Learning observation sheets to measure the learning activities.3) the data of the lesson study which were obtained from observation sheet, interviews with teachers and students, and field note of the lesson study implementation. The data were analyzed by applying data reduction technique. Then it was concluded in qualitative way.

RESULT AND DISCUSSION

The implementation of lesson study is supporting and accustoming the teachers to implement guided inquiry model in the material of The Plant's Tissue Structure and Function while teaching in class. The members also conveyed that there were many advantages in terms of developing their professionalism and learning experiences by implementing lesson study. The lesson study was conducted in three cycles. The measured learning outcomes included knowledge, skill in using microscope and communication. The result is shown in histogram of figure 1, 2, and 3.

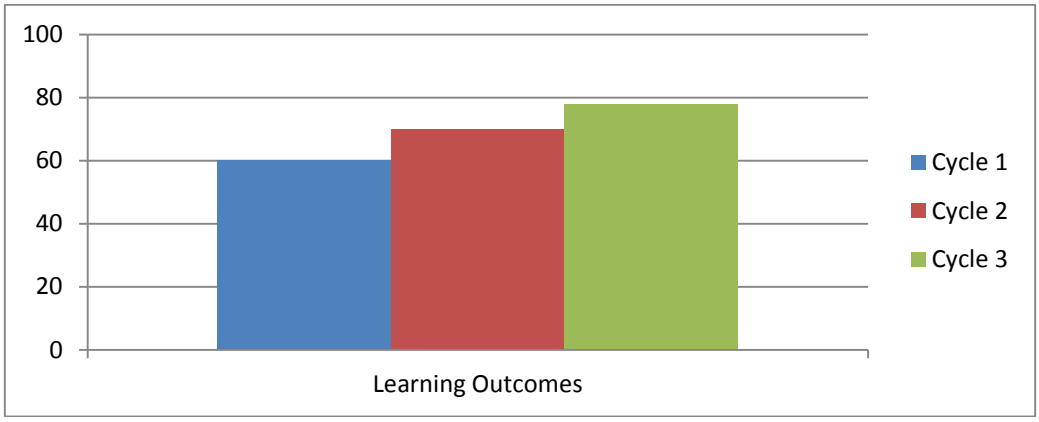

Figure 1 Cognitive competence

The students' cognitive skill average in the cycle 1 was 60. In the cycle 2, the students' cognitive skill increased by 16.7%and became 70. Finally, in cycle 3, the students' cognitive skill increased by 11.4% and became 78. Overall, there was improvement although it was not significant if it was tested statistically. The indicators of students' skills of observation by using microscope were work safety, preparation, making slice, operating, drawing, accurate observation, and cleanliness. The students' skill averages in using microscope in cycle 1 were 64.1. While in the cycle 2, their skills had increased by 24.7%and became 80. Finally, in cycle 3, the students' skills in using microscope increased by 3.6%and became 82.9.

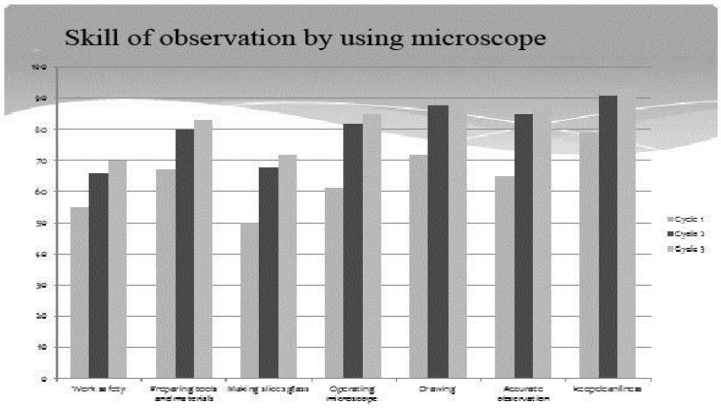

Figure 2: Skill of Observation By Using Microscope

The indicators of students 'communication skill were the clarity in delivering content, depth in argumentation, and respecting others' opinions by using Indonesian language. The students' communication skill average in cycle 1 was 63.4, while in cycle 2 their communication skills had increased to77.6. Finally, in cycle 3, it increased by 3.9% compared to cycle 2 and raised into 80.6.

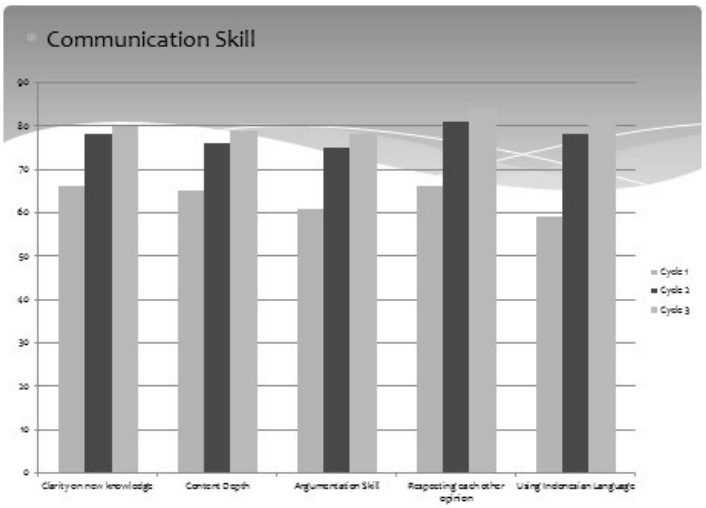

Figure 3: Communication skill

Discussion

The research was conducted in lesson study-based activity in Biology Teacher Development Group (MGMP). Lesson study was conducted in three cycles, each of them consisted of the stage of *plan, do,* and, *see.* The stage of *plan* in the cycle I was arranging the chapter design and lesson design with a material about the plant tissue's structure and function. From the result of planning stage, especially of the chapter design arrangement, there was found that the teacher still inaccurately formulated the indicator of basic competence. Indicator of competence is the measurable and/or researchable attitude to demonstrate the achievement of certain basic competence, which becomes the benchmark of a subject assessment. This occurred because the teachers in MGMP forum did not have in-depth comprehension toward the material. For that reason the lesson study needed to be conducted by collaborating with the advisors from

LPTK. Ibrohim (2016) showed that MGMP will be more effective if it is made into lesson study-based. In the lesson study activity conducted by the teachers and LPTK lecturers, the teacher will act as the practitioner, while the lecturer will take the role of observer. On the other hand, they could also collaboratively act as the practitioner and observer, hence they could complement to each other. The main activity in developing lesson design was setting the objective of learning. Besides, along with the advisors, the implementation of guided inquiry model in terms of its process and its learning assessment were also discussed.

The guided inquiry learning model is specified to be implemented because it is the model which does not waste time in the learning process. Sadeh and Zion (2012) stated that the application of guided inquiry learning strategy supports the learning process due to its efficiency in time. The learning is initiated by asking question or the problem that is going to be observed by the teacher and showing the material or object that is going to be used. In the next step, the students design and conduct the research procedures. The students then make some conclusions and arrange the explanation from the collected data. Joyce and Calhoun (2000) added that the implementation of inquiry strategy is had better to be conducted gradually, start from the simple step and sustainably lead to the more complex inquiry activity. The stages of guided inquiry model shown by Llewelyn (2013) are as the followings: exploring a phenomenon, focusing on the question, planning the observation, conducting experiment, analyzing data, establishing new knowledge, and communicating the new knowledge.

The steps implemented in the stage of *do* in cycle 1, 2, and 3 were accustomed according to the discussion result in the stage of *plan;* which implementing guided inquiry learning. This inquiry learning model is closely related to the constructivism learning theory that was developed according to Piaget's cognitive development of basic psychology and Vygotsky's scaffolding theory. Constructivism learning theory emphasizes on the process of independently establishing knowledge on students. Dedic (2014) stated that through assignments in the inquiry learning model which copying how the actual scientist works in the simplest and most common form, the students could construct and develop their knowledge on science. In the same time they could develop their inquiry skills, comprehend the nature of science, and think scientifically. Due to complexity of assignment in the inquiry learning, to obtain the required quality, the students have to conduct systematic and reflective approach in order to find the valid and accurate conclusion.

The ultimate lesson study activity is *see* or reflecting from the conducted learning process. The result of reflection showed that there were some problems related to the guided inquiry implementation in the first cycle as the followings: 1) the students had not been skillful yet in using microscope, 2) in the stage two which focusing on the question; it was the mentor who answered the question. While the appropriate stage was the question is supposed to be answered by students in the next stage, which is planning research, conducting experiment, analyzing data, and forming new knowledge. Dedic (2014) stated that misconception occurs in scientific process as the consequence of the teachers who do not understand science well, thus do not often strengthen the thinking habit which is actually required for a scientist.

Actually the problem in inquiry learning strategy is not the mistake of teacher. It is because in traditional learning the teachers have not applied the process of interpreting science to the professional level as what have conducted by a scientist. In the professional level, the scientist will comprehend the overall problem of the complexity and inexactness of science. The teachers need to strive in order to gain more experience to train their scientific thinking habits and apply it into their classes. Based on that reason, the teachers apply the scientific method in several books, like asking question, conducting experiment, as well as getting the finding and conclusion. The outcome is teachers tend to monumentalize the scientists' findings as the exact science. Next, the students will comprehend science as an exact science, has no

change, and owns absolute truth. They do not understand that science is dynamic and will always experience change as time goes by. Due to that kind of condition, the students think that scientific learning process is conducted by memorizing procedures and formulas, in order to find one true answer.

Based on the research conducted in cycle 1, 2, and 3, there were shown learning achievements which included cognitive competence and skill in using microscope and communicating, which although experienced some improvements, yet was not significant if measured by statistical analysis. The main objective of this research was to train teachers in implementing guided-inquiry model along with its assessment. Seraphin (2012) stated that the goal of science learning through inquiry is to build foundation for students so they will have scientific literacy. In this perspective, one most important component of scientific literacy is recognizing and taking role in science as a discipline. The character of discipline includes practice habit, specific language, trust, and communication network. Science as discipline has its own unique point due to its systematic process in discovering the science of nature. Students who have scientific literacy will comprehend that science is not just a collection of fact but also the dynamic process in discovering and developing science which cover the habit of scientific thinking like curiosity, critical analysis, and open toward various ideas. Dedic (2014) also added that through the stage in inquiry learning strategy that copy how the actual scientist works in the simplest and most general term, the students could construct and develop their own knowledge in scientific content. At the same time, they will develop inquiry skill, comprehend the nature of science, and think scientifically. However in reality, the perspective of science as a discipline in learning and assessment process is contradictory with the practice in school in common. As the consequence, the misconception of students whom view science as merely a collection of fact happens.

In the implementation of guided inquiry learning model, there is used performance assessment to measure not only the cognitive competence, but also the skill. Stiggins (1994) expressed that there are some reasons why performance assessment needs to be conducted in school, which are: 1) giving more opportunities for the teachers to recognize their students more intact, due to the fact that not all students who perform less successful in objective test or description test are not skillful or creative. Therefore the students' performance assessment could supplement other methods of assessment. 2). the teachers could observe students' skills during the learning process without waiting until the end of the learning process. 3). they could know better about certain students' skills which are hard to understand just by looking at the written test or their homework final results. The targets that are going to be achieved through performance assessment are: (1) *knowledge,* (2) *reasoning* which means how they apply their knowledge for problem solving context, (3) students' *skills* in asking question, communication skill, their works, and visuals, (4) *product* which means the skill to produce or create various works, (5) *affect* which describes about attitude, interest, value, motivation, and self-concept. The advantage of performance assessment is that this could value the knowledge, attitude, and skill of students. Performance assessment allows the students to show what they are able to do for real. This is based on the consideration that there are difference in knowing how something works and the actual skill of implementing that concept in real life.

Overall, the outcomes of lesson study activities were good. The cycle 1, 2 and 3 got positive response both from teachers and students in 11th grade of MIA Senior High Schools in Malang Regency. Stigler and Hiebert in Susilo (2010) stated that *lesson study* provides the lost "key element" of ongoing education reformation, which is the effective way in improving the learning quality through the development of teachers' professionalism in collaborative way which is based on learning practice. The idea consisted in lesson study is actually so brief and simple, as what was revealed by Lewis (2005): if a teacher wants to improve the learning

quality, one of the clearest methods is by conducting collaboration with other teachers to design, observe, and reflect toward the conducted learning. The main objectives of lesson study are: (1) getting better comprehension about how the students learn and how the teachers teach, (2) getting certain outcomes that give benefit for other teachers in conducting learning, (3) systematically improving the learning process through collaborative inquiry, (4) building pedagogical knowledge where a teacher could gain insights from other teachers.

CONCLUSION

The implementation of inquiry model could improve the students of 11th grade of MIA Senior High Schools in Malang Regency's learning outcomes, which were cognitive competence, skill of observation by using microscope, and communication skill.

Moreover, the activities of lesson study were: improving the instruction quality through continuously collaborative discussions of instructional activities based on the principles of partnership and mutual learning, as well as establishing a learning community.

REFERENCES

Ibrohim. 2016. Perkembangan Baru Teknik *Lesson Study* Mengarah Pada Keefektifan Perencanaan Dan Pelaksanaan Layanan Pembelajaran Bagi Siswa.

Sadeh, I, & Michal, Z. 2012. *Which Type of Inquiry Project Do High School Biology Students Prefer: Open or Guided?* (Online), DOI 10.1007/s11165-011-9222-9 Related subject areas: Science Education, Inquiry Pu Sci Educ (42:831–848

Joyce, B., Marsha, W. & Emily, C. 2000. *Models of Teaching* (6th ed.).Boston: Allyn and Bacon.

Lewis, C. 2005. *How do teachers learn during lesson study?* In Wang-Iverson, P., and M. Yoshida (Eds.). *Building our understanding of lesson study*. Philadelphia: Research for Better Schools, Inc.

Llewellyn, D. 2013. *Teaching High School Science Through Inquiry and Argumentation*. USA: Crown

Seraphin, K.D., Joanna P., Lauren K, & Lisa M. V. 2012. *Metacognition as means to increase the effectiveness of inquiry-based science education Science Education International,* Vol.23, No.4.

Susilo, H. 2010. *Lesson Study. Berbasis MGMP sebagai Sarana Pengembangan Keprofesionalan Guru*. Malang: Penerbit Surya Pena Gemilang

Stiggins, 1994. Student Centered Clasroom Assesment. NewYork: MacMillan College Publishing Company

Syamsuri, I. & Ibrohim. 2011. *Lesson Study (Studi Pembelajaran).* Malang: Penerbit Universitas Negeri Malang.

Dedic, Z.R. 2014. *Metacognitive Knowledge in Relation to Inquiry Skills and Knowledge Acquisition Within a Computer-Supported Inquiry Learning Environment* . Psychological Topics 23 (2014), 1, 115-141 Original scientific paper – UDC – 159.953.5.072-053.5 37.015.3

Contribution of Parenting Towards Child Labour: A Case Study of Port Moresby (PNG)

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Abstract: Child parenting is very vital, a key aspect regardless of prospect circumstances. Every child has rights to live in decent environment and be educated. In developing countries, child labor use has increasingly widespread over the years. Generally was characterized by low wages and long hours of work under dangerous, hazardous, unhealthy and unhygienic conditions, which could lead to poor physical and mental development. This study identifies issues in Port Moresby concerning the practice of parenting mistreatment towards children that deprives rights and future development. Frequently, the issues are quite usual and culturally practiced in PNG society. The purpose was conducted to document significant role of PNG government providing general Media Awareness Campaign to show respective individuals the significance of child's future development. The findings are expected to contribute awareness and alertness throughout media outlets towards the wider community for preparedness that child's natural development is important. This qualitative research design, analyzed the steps taken by PNG government to document distribution through awareness campaign in most effective strategic message of consideration "lessons to be learned" if you will, of how important parental input embedded. Ultimately those practices and behaviors of parental overriding child's rights are disbanded. The study revealed that overall attempts of awareness by Department of Labor and Industrial Relation of PNG in collaboration with International Labor Organization, through ILO International Program on the Elimination of Child Labor hazards. The government considerably obliged to clarifies importance of parenting and consequences of child labor phenomenon on Media Awareness Campaign.

Keywords: parenting; child labor; awareness

Port Moresby is the capital city of Papua New Guinea (PNG) contains population capacity almost half a million. The capital city is rapidly developing from last decade through new boosting development of Liquefied Natural Gas (LNG) project. It's the only center were most departmental and company headquarters are located. The people comes from other provinces move to Port Moresby for an opportunity to sustain living. On that token; the more people flock into the capital city, the more over crowded it is. That leads to living standard difficulties regarding money, land, housing, food, children's clothing and education. The gravity of this problem has also led to the development and inclusion of labor standards.

In such situation occurs in Port Moresby, parents are finding very difficult to raise the children to an expected standard of living in a decent environment and receive quality education. Besides these demanding needs the livelihood of a child most likely being jeopardized; for instance to be served on a table, everybody as to play a role to meet the need at the end of the day. In that case, it precisely indicate how parenting involvement towards child to work anyway possible to earn money. Ultimately most children have been forced out from homes, some working and living on streets, and others are even forced by parent indirectly, stopping formal education.

According to the PNG government in the Department of Labor and Industrial Relation (DPLIR) in collaboration with International Labor Organization (ILO) tremendously addressing this issues conducted by International Program on the Elimination of Child Labor. It prompted this study to provide a more complete picture documented on "media outlets" of how parental input with children performance in various activities. Awareness of all media outlets to inform intentionally to eradicate and put a halt of such practices and behaviors by parents and comprehensively prohibit hazardous occupations and activities for children.

Parental Problem in Port Moresby

Parental lack of discipline and educating children is one of the main aspects in Port Moresby that attracts a child to get involved in hazardous activities. However, the main problems are; lack of family income sources, parent's divorced, single parenting (death), transiting from one place to another and other reason's that also leads automatically towards child labor. Those are the common decision integrated by parents.

According to other valuable sources found out that parental time investment in children are highly recommended. For many researchers it has been important to understand how parents with different socioeconomic statuses interact with their children, since parental time invested in children is assumed to be an important determinant of children's cognitive skills and well-being (Bonke and Esping-Andersen, 2011; Kalenkoski et al., 2005; Sayer et al., 2004a, 2004b).

A child's livelihood and the future is determined by household interaction. The parent's responsibility to provide basic needs and improvise manifestation of important situations occurs during the process of child's growth. Eventually, children residing with family in Port Moresby on the settlements and scrap metal houses on hillsides at any vacant spaces available to live are easily exposed to child labor. Many parents are illiterate, can't afford a job and living off from daily basis activities are the breeding ground where children involvement in hazardous work are found.

Moreover, Port Moresby is the city which attracts people from the rural areas in terms of fast growing development structures, daily income (quickest way to earn money) and job opportunities. Compared to other centers, the phases of delivering basic government service developments are slower and less focused. Even though, Port Moresby living cost categorized has higher demanding than any other South Pacific Nation cities except New Zealand but parents consider to migrate instead of other centers like Lae, Mt Hagen, Rabaul and townships.

Reasons Contribute to Child Labor

Apparently, some of the top most reasons forced children involvement in hazardous activities are; For example…*low household income and child earned income to save up for future expenses*. The table below shows some of the many actual reasons of household and parental affected children contribute towards the labor standard practices.

Table 1. Reasons for Households Forcing Child for Child Labor

No.	List of Reasons Affected Child
1.	Family income too low
2.	Child is able to earn for his pocket expenses and for his educational needs, as well as saves for future
3.	No adult to work
4.	Child doesn't want to go to school because he was influenced by peers not to go

5. Need more money to pay off debts
6. Child is happy and willing to work
7. Child is influenced by money
8. Utilizes his time wisely during holiday by earning some money and gaining experience
9. No government support towards the family since we are poor i.e. in terms of scholarship
10. Help other brothers and sisters in their expenses and educational needs
11. Financial problem in relation to educational requirements
12. School not taking because child was not performing well.
13. Cost of living is high
14. Helps family share the farm work load and helps in farming activities as result saves in labor cost
15. Can't afford to meet extra school requirements such as fundraising, tickets and so on
16. Child didn't wanted to join the new school
17. No guidance towards Childs education and as well as for family
18. Single parenting (widower)

The table shows children's reasons to get involved in child labor. These many reasons are through household (parenting) disorder. According to children's view and their way of thinking is that getting involve with any possible work to earn something is much better than living without earning something. *"It's the way of the survival of fittest."* About most don't regret what they do but regret if they don't get involve to earn.

This is supported in an article by Joku who reported the opinions given by PNG children during the World Day against Child Labor 2009 celebrations; where these children attributed social issues such as poverty, lack of formal education and the rising standards of living as a cause for child labor in PNG. The article further mentioned that while these children were against child labor, they also believed that urban children must work in order to survive. In addition, Joku, reported that children in urban centers in PNG, particularly Port Moresby and Lae were being hired to perform tasks and chores to earn a living and that these centers have all the breeding grounds of unscrupulous employers and practices such as child labor.

Moreover, Papua New Guinea does not have legislation to comprehensively prohibit hazardous occupations and activities for children. Additionally, child labor laws are not effectively enforced and the lack of compulsory education may increase the risk of children's involvement in the worst forms of child labor. The Government lacks social programs to specifically assist children engaged in child labor in all relevant sectors.

THEORY AND EMPERICAL STUDIES

The purpose of this study has three primary aims: (1) the government's collaboration with ILO Conventions provide universally legal framework to help distinguish worst form of child labor. (2) the government agencies and non-government organization in supportive of ILO Convention legal framework to document the issues and enforcement of law for child labor in organized distribution strategic measured plan. And so contribute to the progress of relevant

social discourse and theory, government policies and practices. Third, display the documentation of government ratified laws and consequences for future development regarded agreements at all social levels, and the every- day lives, relationships and experiences of children on child labor practices and activities through mainstream media awareness campaign. In this sense, an empirical study to the above aims, data's are use from secondary collection. The available information is on website online and various reports. However, the documented role by government are fundamental standard on abolition of child labor and consistently advising parents to progressively develop children in physical and mentally. Thus it is necessary to examine how effectual parenting decision determine the outcome of a child, the study conducted to display the responsibilities of parents to change behavior of children.

METHODOLOGY

The method of analysis is qualitative approach and Secondary data was used for the purpose of this study. The secondary source data collection are from parenting and child labor data from various reports on labor standards, International Labor Organization (ILO) analyzed and articles on child labor from news outlets was also obtained to document the role of the government in creating awareness campaign regarding this phenomena. Research location, focused in Port Moresby and information data on affected children in Port Moresby was obtained from the Department of Labor and Industrial Relation of PNG in collaboration with International Labor Organization, through ILO International Program on the Elimination of Child Labor website online. Data analysis on this study done after the collection of data, transcribed all data as interpretation into written form.

FINDINGS AND DISCUSSION

The government of Papua New Guinea has various organization in collaboration with ILO and policies that are aimed at creating child labor awareness campaign for eradication and prohibit which can be described as follows;

-International Labor Organization (ILO)

The ILO Conventions of child labor provide the universally recognized legal framework which helps distinguish between child labor and acceptable children's work.

1. The ILO Convention No. 138 on Minimum Age and Convention No. 182 which seeks to eliminate the Worst Forms of Child Labor, have been ratified by many countries. The fundamental international standard on child labor which requires ratifying states to: "Undertake to pursue a national policy designed to ensure the effective abolition of child labor and to rise progressively the minimum age for admission to employment or work to a level consistent with the fullest physical and mental development of young persons".
2. The United Nations Convention on the Rights of the Child "protects the civil, political, economic, social, health and cultural rights of children." It also defines a child as being under the age of 18, and includes under Article 32, the right of children to be protected from economic exploitation.

According to a report by the International Trade Union Confederation (ITUC), child labor is outlawed in PNG given that the country has ratified ILO Conventions No. 138 and No. 182, however there are still some gaps in its implementation.

Government Agencies and NGO's

In 2015, Papua New Guinea Government made a minimal advancement in efforts to eliminate the worst forms of child labor. The Government adopted the country's first National Action Plan to Eliminate Child Labor and commenced implementation of a new social program aimed at identifying children working on the street and ensuring that they are returned to safe living situations and to school.

Firstly, the Department of Labor and Industrial Relation (DLIR) distribute awareness in other access ways to bring the message across to all schools, churches, youth groups, associations, in order to alert the wider community of the global perspective of international children right's protection.

Secondly, the Department of Community Development (DCD) completed three studies (1993, 2000, 2010) on Street Children in PNG highlighting the issue of street children as an emerging social issue. The involvement of the department play important role been identified the core problem of street children. Regarding DCD initiative, also to continue develop awareness reaching street children by proactive community outreach programs.

Thirdly, some non-government organizations (NGO's) have assisted street children in many ways. These include assistance provided by the "Tembari Children's Centre" at 7 miles (Port Moresby), who provided them early education and served the children food and provided money. The "Save the Children Fund" also assisted children who had unwanted pregnancies, such as single mothers and those who were sent away from home. Another organization that assisted street children was the "Institute of Mercy" in Australia. It supported people living on the edge such as those living in poverty. The government assistance be provided to those organizations to push forward the tireless effort and minimize the problem.

Moreover, the laws do exist on child labor, the legislative review highlighted that these laws were usually silent and that the implementation of these laws was unsatisfactory, even though there was a structure in place for implementation. There are other legislatures that relate to child labor laws, some of which include;

a) The Lukautim Pikinini Act 2009;
b) The Apprenticeship and Trade Testing Act 1986, that sets the minimum age for apprenticeship at 15 years;
c) The Mining Act that sets the minimum working age at 16 but does not allow females to work underground;
d) The Defense Act that sets the minimum enlistment age at 18 years.

The Government has established institutional mechanisms for the enforcement of laws and regulations on child labor, including its worst forms (Table 2).

Table 2 Agencies Responsible for Child Labor Law Enforcement

Organization/Agency	**Role**
Department of Labor and Industrial Relations (DLIR)	Implement and enforce child labor laws.
Department of Religion, Youth, and Community Development	Enforce the Child Bill (*Lukautim Pikinini*).
Royal Papua New Guinea Constabulary Sexual Offenses Squad	Enforce laws against commercial sexual exploitation of children and the use of children in illicit activities.

Finally, the PNG government fully committed to most of the laws and policies put in place harmonizes, resulting in consistency and issues when it comes to implementing the policies and enforcing any laws addressing child labor. The government revives structures reviewing laws by implementation of strict legislation effectively to prohibit child labor practices. In order for law be taken into account, every guardians, parents and children should

consider the law. The documented messages are distributed out through media to general public and wider community's awareness for preparedness. These are importantly intended for parents especially to take extra responsibilities in advice and inform children to take precautions on that necessary measure.

Steps Taken on Mainstream Media Outlets

The demonstration regarding the gaps is filled during awareness carried out through advertisements on television, radio, print media (newspapers, magazines) in various languages like English and Pidgin. Other awareness distribution is through flyers, stickers and brochures. With the PNG governments is fully committed with the implementation of strict legislation on Child Labor would allow all media to broadcast awareness campaign message across Port Moresby and other major centers as whole.

In Port Moresby, most media head office is located. There are three available television network stations are currently televised on air across PNG namely "EMTV" "KUNDUTV" "TVWAN" are to carry out television media advertisement every on commercial break. Many other TV stations are connected as well but those three stations are locally owned and every parts of PNG it is reachable for viewers to receive message across in many isolated areas. In addition, a specific television program set by the government to be televised in all television media every once a week on child parenting issues. Thus, television has enormous potential to affect attitudes and stereo- types (Mutz & Goldman, 2010).

Secondly, the local print media (newspapers) companies are also available to distribute daily, "The NATIONAL" "POST COURIER" and "WANTOK" newspaper. The daily papers also contribute awareness to people are not fortunate to watch television which can be available on the streets. In addition, the inclusion of other necessary ways such as putting billboards or signboards on streets and main highways for by pass travelers. In every store, office (company, private or government), hotels, and any available spots to put posters, booklets, sticker, card, bracelet, printed T-shirts, car bumper stickers, and it's all other necessary of any applicable ways to bring the awareness message across.

Finally, this study prompts to supports the government and NGOs partners to accomplish the implementations of law and expand regulations provided for parents to take ownership and responsible over children. Although the documented message as awareness is efficient procedures, it will guide individual's (parents and children) behavior and also mentored to archive betterment in children's future development.

CONCLUSION

Child Labor use is a global phenomenon which addressed by ILO to eradicate. Papua New Guinea's labor laws do not specifically define the hazardous occupations and activities prohibited for children, and the minimum age at which children are permitted to engage in light work is not in compliance with international standards. Parental involvement influences children escalating in child labor and risk of suffering from hazardous activities for future developments. These parental involvement factors push the parents to do such decisions for sustainable outcome, but significantly produce worst from the children.

Therefore, there is a need to address this issue of child labor on effective ways to focus on wider view and accessible for every individual. Further, the Government in Department of Labor and Industrial Relations (DLIR) should adopt the National Action Plan to Eliminate Child Labor and commenced implementation of a new social program aimed at identifying

parental involvement in children working on the streets, hazardous activities and ensuring that they are returned to safe living situations and to school.

In addition, the Media Awareness Campaign (MAC) which informs and declares local populations about how the consequences of child labor will manifest in child's near future and the labor laws. MAC initiatives may consist of individual activities such as touring streets to conduct child labor awareness meetings, or posting posters and giving out booklets, stickers at available venue. With the distributed documents consist of labor laws and its consequences, a second comprehensive MAC approached entails planning a Week of Child Labor Awareness Campaign message through schools, residential, offices and public forums. And the effective awareness perhaps would be continuous mass media awareness in TV, radio, newspapers (print media) social media (Facebook page) and other media sources.

REFERENCE

Bonke, J. & Esping-Andersen, G. 2011. Family investments in children – Productivities, preferences, and parental child care. *European Sociological Review* 27(1): 43–55.

International Labour Organization. 2009. *Tackling Child Labour in Fiji and PNG, in ILO Office for Pacific Island Countries – NEWSLETTER*, (Online) no.1 Retrieved on 09/06/2011:http://www.ilo.org/public/english/region/asro/suva/pdfs/newsletter0409.pdf.

International Trade Union Confederation. 2010. Internationally Recognized Core Labor Standards in Papua New Guinea – Report for the WTO General Council Review of the Trade Policies of Papua New Guinea. *International Trade Union Confederation Retrieved* on 09/06/2011 (Online), from URL website: http://www.ituc-csi.org/IMG/pdf/report_PNG-final.pdf.

Joku, H. 2011. February 15. *Child labor on the rise Papua New Guinea Post - Courier*. Port Moresby.

Kalenkoski, C.M., Ribar, D.C. & Stratton, L.S. 2005. Parental child care in single-parent, cohabiting, and married-couple families: Time-diary evidence from the United Kingdom. *The American Economic Review* 95(2): 194–198.

Miliakere, K.M. & Fatiaki, M. "*Child labor in Papua New Guinea – Report on the rapid assessment in Port Moresby on commercial sexual exploitation of children and children working on the streets"* / International Labour Organization, International Program on the Elimination of Child Labor (IPEC) – Port Moresby: ILO, 2011, 102 pages.

Mutz, D.C., & Goldman, S.K. 2010. Mass Media. In J. F. Dovidio, M. Hewstone, P. Glick, & V. M. Esses (Eds.), *The Sage handbook of prejudice, stereotyping and discrimination* (pp. 241-257). Thousand Oaks, CA: Sage.

Sali, G. 2010. Emerging street children in Papua New Guinea, *The International Child and Youth Care Network*, CYC-Online, Retrieved on the 10/9/2011 from URL website: http://www.cyc-net.org/cyc-online/cyconline- feb2010-sali.html.

Sayer, L.C., Bianchi, S.M., & Robinson, J.P. 2004a. Are parents investing less in children? Trends in mothers' and fathers' time with children. *American Journal of Sociology* 110(1): 1–43.

Sayer, L.C., Gauthier, A.H., & Furstenberg, F.F.Jr. 2004b. Educational differences in parents' time with children: Cross-national variations. *Journal of Marriage and Family* 66(5): 1152–1169.

https://www.dol.gov/agencies/ilab/resources/reports/child-labor/papua-new-guinea.

Economic Learning within Samin Community in Blora Regency

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Abstract: The present study examines economic learning within Samin community which is part of succession process of economic behavior to successor community. The study employs qualitative approach and takes place at Klopoduwur village, Banjarejo, Blora regency. The data collection is performed by conducting in-depth interview, observation and documentation. According to the results, it indicates: (1) Samin surosentiko doctrine inheritance is performed by the head of the family in everyday life, by giving verbal explanation to their children regarding to the "do and don't" in their doctrine; (2) The elders of Samin community emphasize the importance of preserving the environment to provide livelihoods for generations; (3) in farming or raising animals, father, will encourage their sons to participate; (4) parents engage their sons in shepherding as well; (5) meanwhile, the daughters normally help their mothers preparing meals for the family; besides, (6)awarding exemplary by the elders of Samin community and parents to their children is applied for generations, especially demonstrated in instilling honesty in exploiting natural resource and performing "paron" (divided by two) system in farming and raising animals.

Keywords: economic learning, samin community

In their daily lives, most of people in Samin community work as farmers. Most of them have a plot of land which is large enough to be planted for agricultural activities. It also can be used for livestock activities, such as raising goats, buffaloes and cows. In addition to agricultural activity, Samin community are also known as people who are tough and diligent in economic activity, especially in the field of agriculture that produces food items for local consumption. Apart from agricultural activities, the economic life of Samin community itself is seen from the lack of the level of economic needs fulfillment, even though there are still many local potential that could improve their economic life.

A research which was conducted by Yeni (2008) showed that the people living in Pace Village, Klopoduwur Sub-district, utilize a small part of the existing natural resources as the business opportunity to improve the economic life of family. The existence of natural resources in Blora has important economic value for the surrounding society. Natural commodity should give economic value for the society. However, if it is seen from the condition nowadays, there are still many people who are poor, unemployed, do not have field for agricultural activity, and cannot utilize the potential of natural resources (forest result)

In addition, the results of research conducted by Jauhari (2008) found that the economy should be focused on the atteempt to create independence within the society itself, and the government only as a supporting actor alone. Local economy independence is one attempt that can lift people's welfare through self-reliance and the ability to develop the potential of the community itself. In the development of society empowerment which brings local skill development, there are some important aspects that become the target of development are natural resources, capital and skills (ability). In its process, the existing natural resource is managed by the local community by utilizing human resources in the region. Local economic independence which occurs in several regions is one form of empowerment that capitalize the

local capabilities, where the local economy power is used as capital to create communities that are empowered and independent. The independence of society will be effective if people organize themselves in self-help groups of society that have been formed in the relevant society (institutions that already exist).

Competition in the era of globalization is the impact of the global economic development is increasingly rapid and changing, especially the impact of understanding and implementation of mainstream economic concept. However, it should be realized that the economy which is always discussed in modern world nowadays often forgets the element of the local economic values that would be able to survive in the chaotic euphoria of global economy. Local economic culture appears to save a lot of knowledge systems that until now becomes the backbone of the world's cultural wealth. On the other hand, study related to economy is important because this is one area that is constantly developed and is valid throughout human's life. The process of transfer and the formation of economic values in society have different tendencies, especially in a society that has a certain uniqueness, certainly the process of economic learning that occurs is very different with the mainstream society. Similarly, the subject matter which is presented also has significant differences. This research examines the economic learning in Samin Community, which is the part of the succession process of economic behavior to the future generation of the society.

LITERATURE REVIEW

Economic Learning

Education and learning is a multidimensional process, which is not only a process of transmitting education and skill, but it also explains, instill, and also acts as a role model, in this case includes attitude, value, morality, statement, action, and lifestyle. (Maryani & Syamsudin, 2009)

Learning process can be conducted in various ways. Pidarta (2007) divides educational institution in Indonesia into three parts, namely: (1) formal educational institution (preschool educational institutions, elementary educational institutions, educational institutions of high school/ senior high school and vocational high school, and educational institutions of university); (2) non formal educational institutions; and informal educational institutions in family and society.

Economic learning in Samin community is a learning process which is in informal institution in family and society, which prioritizes affective and psychomotor development, which certainly also develops cognition as a supporting element. (Pidarta, 2007)

Informal learning process is a learning process which is continuous and runs for a long time, which is well known as internalization process. Ryan (1983) says that "*the term internalization refers to the process by which an individual acquired an attitude, belief, or behavioral regulation from external sourcess and progressively transforms it into a personal value, goal, or organization*".

The economic learning in Samin community is related to the formation of attitude and behavior in fulfilling the economic needs of family, which is the local culture of the community to maintain their existence and improving their life condition through various ways. However, basically it has a nuance of an attempt to establish the prosperity.

Local Wisdom in Economic Field

Local Wisdom means human intelligence possessed by a particular ethnic group which is

gained through the experience of community, which is patterned into everyday behavior and hereditary to the next generation (Rahyono, 2009). Intelligence is showing the power of reasoning of society to manage their lives based on the potential provided around them.

Siswadi, et al. (2011) says that local wisdom is often conceived as local knowledge, local genius, and local wisdom, by UU RI No.32 of 2009 on the Protection and Environmental Management is defined as the noble values prevailing in the life pattern of society, which are used to protect and manage the environment sustainably. In Samin community, the environment is something that is very important to be preserved because if natural resources are used without clear rules, then as the result, natural resources are no longer well-maintained; land and forest are damaged, springs are damage; whereas water is the most essential need for living things. Water shortage will harm the growth health, and productivity of humans, animals, and plants, even it can lead to death (Manik, 2009).

According to Soemarno (2015), local wisdom has two main elements, namely human with mindset, and nature with climate. Human in the past used natural language to form the built environment, which is the interaction between nature-human- environment is built. It is in contrast with people nowadays, who prefer technology. Globalization affects local wisdom through human mindset. Globalization can lead to cultural transformation.

Based on the explanation above, it can be concluded that local wisdom has a consideration to synergize with nature, in which capitalism or market control is not dominant in the economic life of society for the nature sustainability for the future generation.

In the natural preservation, the behavior of society is a local wisdom which is projected by the ways which are suitable with the mindset of the society and the local tradition. It is expected to be able to make a concept and way to maintain the balance of environment preservation, which impacts will maintain the continuity of economic potential in that area. Various forms of prohibition, taboo, aphorism, and other traditions, can reveal several messages which have great meaning for the nature preservation. (Zulkarnain, et al., 2008)

The issue of local knowledge is not just a matter of preserving the environment, but it has many dimensions, one of which is an important point in the local wisdom is the effort of public welfare of surrouding society by fulfilling the economic needs that have been available in the environment around them. Local wisdom will only be everlasting if the local knowledge is implemented in concrete everyday life, so that it can respond and answer the flow of era which has changed. Local knowledge should also be implemented in the state policy, for example by applying economic policy with the principle of mutual cooperation and kinship as one form of our own local wisdom. To achieve that, the implementation of state ideology (Pancasila) in various state policies is necessary. Thus, local knowledge will effectively function as a weapon - not just heritage - that equips people to respond and answer the flow of era. Exploring and preserving the various elements of local knowledge, traditions and local institutions, including the norms and customs that are beneficial, can function effectively in character education, while conducting studies and enrichment with new wisdoms. (Fajarini, 2014)

Local wisdom is also a process of transferring culture to the future generation. In the middle of modern era like nowadays, we also should not forget our culture which exists because that culture consists of noble values which need to be preserved. That is local wisdom which needs to be explored while we keep enjoying modern culture. Forgetting the existing local wisdom means that we deny the existence of culture heritage of our ancestors, which has very great value.

RESEARCH METHOD

This research used qualitative research approach. According to Bogdan and Biklen (in

Akbar, 2007), "qualitative research is often called as naturalistic because the researcher is interested in investigating phenomena as they occur naturally". Qualitative approach is chosen because of these following reasons : (1) the realities which exist basically are double, instructed, and holistic ; (2) between the one who knows*(knower)* and what is known *(known)*is interactive and inseparable ; (3) only the time and the context which allow to be related to working hypothesis ; (4) all entities exist in a simultaneous condition, so that the cause and effect cannot barely be distinguished ; and (5) research is basically not free of values. (Lincoln and Guba, in Akbar, 2007)

This type of research used ethnography. Saldana (2011) states: *Ethnography is the observation and documentation of social life in order to render an account of a group's culture. Ethnography refers to both the process of long-term fi eldwork and the fi nal (most oft en) written product. Originally the method of anthropologists studying foreign peoples, ethnography is now multidisciplinary in its applications to explore cultures in classrooms, urban street settings, businesses and organizations, and even cyberspace.*

Saldana says that ethnography is a kind of research which observes and makes the documentation of social life in order to describe the culture of a community. Ethnography refers to two processes, namely field work (data collection) which is relatively in a long term and final report writing (product). At first, ethnography is a method which is used by anthropologists to study isolated society, but nowadays ethnography is a multidisciplinary in exploring culture, including urban area, business and organization, and even social media.

Next, Saldana (2011) states that "*the goal of ethnography, then, is to research the default conditions (and their "soft ware updates") of a people's ways of living*". Saldana explains that the goal of ethnography is to study the condition which is relatively consistent, from how to live in society. Based on the explanation above, ethnography can be implemented in this research which makes an attempt to portrait the economic learning which has the nuance of local wisdom in the field of economic in Samin community.

This research was conducted in Klopoduwur village, Banjarejo Sub-district, Blora Regency. The data collection was conducted through in-depth interview, observation, and documentation. As the main technique in the data collection of qualitative research, in depth interview is used to obtain the data basically and specifically. The technique of this interview is unstandardized interview, which means that the interview guideline used is not absolute, and loose. The unstructured interview or passive interview in this research allows it to be done more personally, so that it can explore to get more information (Ekosusilo, 2003).

The selection of data source or research subjects will be rolling in accordance with the need, so that it achieves saturation, with an assumption that the data source of this research is from people, phenomena, and the situation, which exist in the background of this research. The data analysis used in this research is interactive model.

FINDING AND DISCUSSION

Research Finding

The finding of this research shows these following things:
The inheritance of the teaching of Samin Surosentiko is done by the head of household in daily life by giving oral explanation to their children about what can be done and what should be avoided. The oral explanation given is in the form of explanation about how to process agricultural land, take care of cattle, select the product of forest that can be consumed, the limits in cutting down trees to build houses, and also other things that are considered important to be delivered to their children, therefore they do not break the rules that they already agreed in

community.

The leader of Samin community also often gives advice about the importance of maintaining natural environment in order to provide the source of life to their future generation. The learning process of economic local wisdom in Samin community occurs slowly, which internalize their daily behavior in making living to fulfill their needs, by not forgetting the teaching of Samin Surosentiko to not exploit the their result of nature, by not taking them too much.

There are some people of Samin community who work as ranchers, even though they work traditionally. They are accustomed to bring their cattle to grass field or locations which have food for their cattle. Adults usually involve their sons in taking their cattle to find food. It is a simple way of Samin community to teach their children in farming, which certainly can improve the economic condition of their family, at least to keep alive.

Girls in Samin community usually help their mother to provide food to be consumed by their family, this process is the learning economic process in which girls are trained to have skill in providing their various consumption needs. Besides, at the same time, their daughters will also be accustomed to manage the household expense which is in accordance with the ability they have.

In the process, giving a model by the leader of Samin community and parents to their children has been done from generation to generation, especially it is shown in growing honesty in utilizing natural resources and implementing *paron* system in agricultural activity and ranching. *Paron* system is a system of revenue sharing between the land owners with the field workers, or the owner of the livestock keepers. *Paron* system is basically the spirit to perform economic transaction that give a sense of justice to both parties. Land owners and field workers will get some rice at harvest time in accordance with the agreement they has made before planting rice. Similarly with between the owner and the livestock keepers. The percentage of profit sharing in both the agricultural and ranch generally have no habits which are not written yet applicable in Samin community. (Nikmaturrohmah, 2016). Giving the example seen also on the learning of parents towards their children in dilligence when they do agricultural activity and ranching to meet their daily needs. Dilligence is taught by giving the example directly by parents to their children, both in agricultural activity and ranching.

Discussion

Samin community has a view of life or certain teachings that distinguish it from other communities. The teaching of Samin teaches that people should always do kindness and be honest, patient, work hard, and avoid themselves from being envious, not arbitrarily against other human beings. Initially, in the colonial period, Samin communities were introvert and refused to pay taxes and opposed government regulations, including did not want the school and so on. But at the time of the Republic and the especially in this era of globalization, the secrecy of Samin community was starting to unfold, and there changes in their lives, including their economic lives.

Samin community is a group of people who occupy a place by following the teaching of "*Samin Suro Sentiko*" with all its uniqueness and wisdom of a group of Javanese people who follow and keep following the teaching of "Samin Suro Sentiko" which appeared in the Dutch colonial period around 1990, some of partt called it "saminisme" (Lestari, 2008).

The process of economic learning in Samin community which occurs through verbal explanation is a process of verbal communication that can occur with the use of a specific language, which becomes an effective medium to convey the message. Verbal language is the primary facility to express thoughts, feelings and intentions to others. Verbal language uses

words that represent the different individual reality aspect. Verbal communication is not as easy as we imagine. Symbol or verbal message are all kinds of symbol that use one or more words. (Mulyana, 2012)

One example of interpersonal communication can be found in the communication between saleswoman with customers, two people in one interview, between the the street singers inn the street where they are carrying out their profession as well as in other places, including between parents with their children (DeVito, 1997). Community in Samin community that occurs between the parents as educators of their children in terms of how to meet the needs of everyday life. Besides among individuals, communication is essential for the formation of a group of people to be able to communicate between communities. Language as a communication tool is the main communication medium in a society. With language, people can express their thoughts, feelings, ideas and skills to others in a particular social group. Language is always used by humans in a variety of concepts in order to meet the needs of their lives. In communicate, we are following cultural norms, we are not just expressing the idea that we think. The procedure for communicating should be appropriate with cultural elements that exist in the society in which they live. (Montolalu, et al., 2013).

The advices given by the elders of Samin community about the importance of preserving the natural environment in order to provide a source of livelihood for their next generation, is also a process of communication, and an economic learning to the next generation. Teaching and learning process (including the household economy) as a communication process, and serves as the process of delivering a message from the source of the message through a particular channel/ media to a recipient. (Pontoh, 2013).

This modeling by elders of Samin community and parents against their children in behaving economically is basically in line with the concept of Ki Hajar Dewantara which is *ing ngarso sung tulodo*, which means that if he/ she is in front, he/ she give the example. (Riva, 2006) The elders and parents in Samin community become the leader in providing role models for their next generation, by showing behaviors in farming, ranching, and in the utilization of forest products as well as protect it, in order to fulfill the daily needs.

The internalization process which is carried out in the Samin community last few years will certainly face many obstacles. The process of transformation of traditional values from generation to generation indeed can be done with socialization process (and internalization), but the preservation of traditional values would face obstacles, including: (1) strong currents of foreign culture values, surrounding communities (neighbors) which are supported by advance in technology, is likely to defeat the forces of transformation of values between generations; and (2) The transformation that occurs between generations may be only at the level of 'package' or 'skin', not the content or the substance of economic local wisdom derived. (Soetomo, 2014). This issue certainly needs to be a concern; given the adherence element on economic local wisdom which is humanist will fade along with the chang in modern era, which emphasizes the properties of materialists.

There are two culture transformation which can be concluded, which are natural transformation and unreasonable transformation. In natural culture transformation, change occurs in form of culture combination. Local culture is still maintained, but it is combined with foreign culture. This combination results new architecture while maintaining their local wisdom. The example can be seen in lanting houses in Banjarmasin, Imaekholu house in Papua and Koleman di Jember. The objective of house is maintained as well as the elements of the building, although there are changes in the layout. Architectural development in Indonesia until the Second World War also showed natural cultural transformation, in which the style of the building was brought by immigrants from other countries, combined with the local climate. Globalization may also lead to unreasonable cultural transformation. This condition is triggered

by the rapid advances in technology and the emergence of today's communications media. The local wisdom in the traditional settlement in suburban area or rural area does not have a drastic effect. It is in contrast to the environment in cities and urban areas, where the cultural homogeneity that ignores local knowledge grows so rapidly. Based on several studies, it is proved that local knowledge has more value because of the integration between natural environment and human development. Local wisdom can provide comfort and protection for shelter, therefore, the sustainability of local wisdom needs to be maintained and developed. This can be done through knowledge and technology adaptation that is present for human life (Soemarno, 2015)

CONCLUSION

The process of economic learning in Samin community occurs in informal education, which is family and society. The process of inheriting the teaching of Samin Surosentiko is done by the head of household in daily life, in several things as follow: (1) giving oral explanation to their children; (2) giving advices about the importance of maintaining natural environment in order to provide the source of life to their future generation; (3) parents take their sons to be involved in participating in the agricultural activity or taking the natural product available in forest; (4) involving their sons in taking their cattle to find food; (5) girls usually find their mother to provide food to be consumed by their family; besides, it is found that (6) giving model by the leader of Samin community and parents to their children is done from generation to generation, especially it is shown in growing honesty and utilizing natural resources and implementing *paron* system in farming and ranching. Inserting the values of "saminisme" to the life of local society aims to lift the local wisdom in the field of economic in Samin community, which might have ways or values that can be alternative solution in solving economic problems.

REFERENCES

Akbar, S. 2007. *Pembelajaran Nilai Kewirausahaan dalam Perspektif Pendidikan Umum: Prinsip-prinsip dan Vektor-vektor Percepatan Proses Internalisasi Nilai Kewirausahaan*. Malang: Penerbit Universitas Negeri Malang.

Devito, J.A. 1997. *Komunikasi Antar Manusia: Kuliah Dasar*, Edisi kelima, Diterjemahkan oleh Agus Maulana. Jakarta: Professional Books.

Ekosusilo, M. 2003. *Sekolah Unggul Berbasis Nilai*. Sukoharjo: Univet Bantara Press.

Fajarini, U. Peranan Kearifan Lokal dalam Pendidikan Karakter. *Sosio Didaktika*: Vol. 1, No. 2 Des 2014.

Jauhari, M. 2008. *Keswadayaan Ekonomi Lokal Kampung Lontong Di Surabaya*.

Lestari, P. 2008. *Interaksi Sosial Komunitas Samin dengan Masyarakat Sekitar (Studi Kasus di Desa Klopoduwur, Kecamatan Banjarejo, Kabupaten Blora).* Fakultas Ilmu Sosial Universitas Negeri Semarang.

Manik, & Sontang, K.E. 2009. *Pengelolaan Lingkungan Hidup*. Jakarta: Djambatan.

Maryani, E. & Syamsudin, H. Pengembangan Program Pembelajaran IPS untuk Meningkatkan Kompetensi Keterampilan Sosial. *Jurnal Penelitian*, Vol. 9, No. 1, April 2009.

Montolalu, D.E., Suandi, IN. & Sutama, IM. Kesantunan Verbal dan Nonverbal pada Tuturan Imperatif dalam Pembelajaran Bahasa Indonesia di SMP Pangudi Luhur Ambarawa Jawa Tengah. *e-Journal Program Pascasarjana Universitas Pendidikan Ganesha Program Studi Pendidikan Bahasa dan Sastra Indonesia*. Volume 2, Tahun 2013.

Mulyana, D. 2012. *Ilmu Komunikasi Suatu Pengantar*. Bandung: Remaja Rosda Karya.

Pidarta, M. 2007. *Landasan Kependidikan: Stimulus Ilmu Pendidikan Bercorak Indonesia*. Jakarta: Rineka Cipta.

Pontoh, W.P. Peranan Komunikasi Interpersonal Guru dalam Meningkatkan Pengetahuan Anak (Studi pada Guru-guru di TK Santa Lucia Tuminting). *Journal "Acta Diurna"*, Vol. I, No.I Tahun 2013.

Rahyono, F.X. 2009. *Kearifan Budaya dalam Kata*. Jakarta: Wedatama Widyasastra.

Rivai, V. 2006. *Kepemimpinan dan Perilaku Organisasi*. Jakarta: PT Raja Grafindo Persada.

Ryan, R.M. et al. Internalization and Motivation: Some Preliminary Research and Theoritical Speculation*, Paper presented at the Biennial Meeting of the Society for Research in Child Development*,50tl, Detroid, MI, April 21–24, 1983.

Saldaña, J. 2011. *Fundamentals of Qualitative Research*. New York: Oxford University Press.

Sartini, N.W. Menggali Nilai Kearifan Lokal Budaya Jawa Lewat Ungkapan (Bebasan, Saloka, & Paribasa). *Jurnal Ilmiah Bahasa Dan Sastra*, Volume V, No. 1, April 2009.

Siswadi, T.T. & Purnaweni, H. Kearifan Lokal Dalam Melestarikan Mata Air (Studi Kasus di Desa Purwogondo, Kecamatan Boja, Kabupaten Kendal). *Jurnal Ilmu Lingkungan*, Volume 9, 2011, Issue 2: hal. 63-68

Soemarno. 2015. Local Wisdom Built Environment In Globalization Era. *International Journal of Education and Research Vol. 3 No. 6 June 2015*.

Soetomo. 2014. *Kesejahteraan dan Upaya Mewujudkannya dalam Persfektif Masyarakat Lokal.* Yogyakarta: Pustaka Pelajar.

Yeni, 2008. *Upaya Masyarakat Desa Sekitar Hutan Dalam Memanfaatkan Hutan Sebagai Peluang Usaha Ekonomi Pertanian (Studi Kasus di DesaSrigading, Kecamatan Ngawen, Kabupaten Blora*, Fakultas Ilmu Sosial Universitas Negeri Semarang.

Zulkarnain, A.A., & Febriamansyah, R. Kearifan Lokal Dalam Pemanfaatan Dan Pelestarian Sumberdaya Pesisir (Studi Kasus di Desa Panglima Raja Kecamatan Concong Kabupaten Indragiri Hilir Propinsi Riau). *Jurnal Agribisnis Kerakyatan*, Volume 1, Nomor 1. Juli 2008, hal 69-84.

Integrating Mathematics Literacy and Mathematics Teaching and Learning in a Mathematics Class

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Abstract. Having a mathematical literacy means not only mastery the mathematics content but also able to use it in daily live. As it does not include in Indonesia's mathematics curriculum explicitly then the teaching and learning of mathematics should integrate both the teaching and learning of mathematics and mathematical literacy. Mathematics problem solving performance modeling as the framework and the local culture as the context of the problem can be applied to integrate both of them. This paper aimed to describe how the integration be conducted in the mathematics teaching and learning. For this purpose, a set of instructional instrument has been developed and implemented at three classes of two schools. Observation of the teaching and learning process, and the students-teacher interaction are taken. Based on the research, both the using of local culture as the context, and habituation of problem solving would attract the students to learn and strengthen students's mathematical literacy.

Keywords: mathematics literacy, mathematics teaching and learning, integration, mathematics problem solving performance modelling, local culture.

According to Stacey (2011: 103) this concept of mathematical literacy is closely associated with concepts that are often discussed in mathematics. Mathematics in everyday life does have many benefits in daily life, but because of the mathematical properties are abstract enough then it is difficult to be able to apply mathematics in daily life. The most important part in mathematics is the mathematical modeling (relating to mathematical according to de Lange, 2006) and processing. A feature to distinguish mathematical literacy from mathematics is an emphasis on the use of mathematics in context (PISA 2003; Steen, 2001; Brown and Schafer, 2006). In particular, contexts that is common or relevant to the day-to-day life of the 'ordinary' person in society (Duba, 2004; Laridon, 2004; Brown and Schafer, 2006). The context may be of a personal nature, involving problems or challenges that might confront an individual or one's family or peer group. The problem might instead be set in a societal context (focusing on one's community—whether it be local, national, or global), an occupational context (centered on the world of work), or a scientific context (relating to the application of mathematics to the natural and technological world). A problem is also characterized by the nature of the mathematical phenomenon that underlies the challenge (PISA 2015). And it is the use of mathematics in these contexts, by this 'ordinary' person that is an important focus of mathematical literacy. That is, to be mathematically literate, it is important that a person be able to identify mathematics relevant to the context at hand and then be able to use this mathematics as one means contributing towards the achievement of one's goals in the context (Brown and Schafer, 2006:44).

Indonesia's students performance in mathematical literacy is measured by PISA. In PISA 2009 (OECD, 2010), Indonesia was ranked 61 out of 65 countries, even based on the last PISA test in 2012 (OECD, 2013: 3) Indonesia rank declined to rank 64 of the 65 participant countries PISA. This result impact to Indonesia education system. In year of 2013, Curriculum 2013 of Indonesia appeare as a reaction to the PISA results. Therefore, the implementation this

curriculum in mathematics should can be used to teach and improve students' mathematical literacy. But, the curriculum 2013 does not state the mathematics literacy competencies to the mathematics competencies explicitly.

Curriculum 2013 emphasizes the use of scientific approach and thematic subjects for junior and senior high school. Applicative problems (in daily life) that can be observed and intertwined with other topics may be the right tool in the teaching of mathematical literacy. This aplicative problem should be package in a relevan and familiar context. Therefore, this study was linking between education and culture in problem solving and mathematical literacy. Education and culture is something that is inevitable in everyday life, because culture is a unified whole and thorough prevailing in a society. Unconsciously, activities of daily life become a specific culture of social life that can not be spared. By using culture as the context of teaching and learning, the students expected to have a good understanding to mathematics. In other hand, the used of problem solving may be come a good way to teach mathematical literacy.

Mathematics problem solving performance modelling is a model of teaching that intoduce by Lestari&Sugiarti (2014). This model of teaching aimed to teach the problem solving skill to students. This model of teaching view that by modelling the students performance and the way to asess the ability, students have their own experience to do the problem solving in order to teach the ability. In this research, researcher do a few modification in the teacher activity on orientation and evaluation phases. The activity distributing and explaining of exemplars problem and exemplars rubric that has been fulfilled and assessed on orientation phase was elliminate. On the evaluation phase, the activity added by two activity i.e. teacher together with the students discusses the answer of the evaluation and then student should fulfill the student rubric. Table 1 bellow show the modified syntax used.

Table 1. The syntax in Mathematics Model of Teaching Based on Authentic Assessment through Exemplars Problem

No	Phase	Teacher's Activities	Students' Activities
	Pre Teaching	Categorizing the level of the students 'problem solving skill by conducting pre test	Doing the pre test
1	Orientation	Present the learning objective and motivating students through the provision of problem samples closely related to daily life. Pointing out explanation or review on the prerequisite materials and or problem solving strategies which might be possibly applied to solve problem in the next phase	Listening to teacher's explanation, answering or solving the given problem Listening to teacher's explanation, making notes, receiving the exemplars problem and exemplars rubric, asking when there is explanation in question, and responding to teacher's inquiries.
2	Individual Problem Solving	Distributing the exemplar problem and the problem solving guidance Explaining how to use the guide of problem solving Asking the students to do the exemplar problem individually Observing, making a note and assessing on how students solve a problem	Receiving exemplar problem and problem solving guidance Listen to the teacher's explanation and ask questions if find the miss understanding Work on exemplars problem by referring to the exemplars rubric. In solving the problems, they can do the problem solving on the exemplars rubric directly.
3	Group Organization	Organizing students into heterogeneous learning groups based on their problem solving level (4-5 students). Distribute worksheet (exemplars problem and exemplar rubric which are exactly similar to the previous) for each group.	Deploying themselves into their group Receiving, read and try to understand the exemplars problem and exemplars rubric.
4	Group Discussion	Asking the students to do the worksheet Asking the student to discussion each other to repair each student work in order to find the best solution Observing, making note, and assessing the student attitude in solving a problem.	Doing the worksheet Sharing ideas in groups when working on exemplars problem by referring to exemplars rubric. Asking the question if they have any difficulties

No	Phase	Teacher's Activities	Students' Activities
		Being a facilitator in group discussion and giving help to groups if they find any difficulties. Ask the students collect the work discussed	Collect the work discussed
5	Class Discussion	Ask the representatives from several groups to present their discussion result. Facilitating the class discussion refer to the exemplar rubrics Observing, making note, and holding assessment the student in both affective and cognitive aspect of problem solving	Several group representatives present their discussion result. The other students have to comment on or ask some questions on the presentation refers to exemplar rubrics
6	Assessment Modeling	Demonstrate on how the groups solve problem Asking the students to assess their individual problem solving	Listening to teacher's explanation, making notes, receiving exemplars rubric and exemplars problem, pose questions if there are any question.
7	Evaluation	Evaluating the students achievement by exemplar problem B Discussing the answer of exemplar problem B Asking the student to do self-asessment.	Doing the exemplar problem B Discussing the answer of exemplar problem B Doing self-assessment using exemplar rubric
8	Closing	Both teacher and students cooperatively infer ideas or concepts that have been elaborated in that day. The techniques applied can be greatly varied. Such technique as teacher's giving inquiries which stimulate them to reach the desired points	
	Post Learning	Giving the post test and categorizing students based on their ability	Making notes on the elaborated conclusion

The research question is:
How the integration of mathematical literacy teaching to mathematics teaching and learning is conducted?

RESEARCH METHODS

Researchers will answer the research question by describing the implementation of instructional tools of mathematics problem solving performance modelling model of teaching by using mathematics literacy problem. For this purpose, the researchers have developed 16 sets of mathematics instructional tools sets based on local culture and scientific approach for VIIth grade of Junior high school students. performance modelling model of teaching (Lestari, N.D.S., & Suwito., 2014). four content of PISA was used in this sets, i.e. change and relationships, uncertainty and data, quantity dan shape and space. Each content consisted of four instructional tools i.e teachers' guidance book, students worksheet, exemplar problems, and 4) lesson plan.

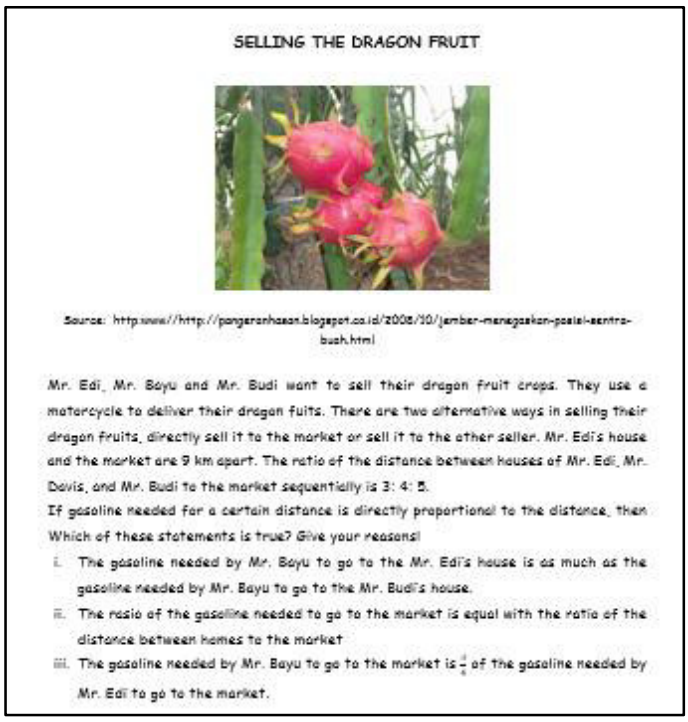
Two schools has been choosen to implement the instructional tools sets. They are SMPN 12 Jember dan SMPN 7 Jember. Before the implementation, the teachers asked to prepare everything needed in the teaching and learning class. Teachers also asked to explain about how to use students' exemplar rubric and guidance for problem solving. The teacing process and students-teacher interaction was recorded, analyzed, abstacted dan described.

RESULT

This paper will describe one set of teaching and learning by mathematics problem solving performance modelling model of teaching to integrate mathematical literacy teaching and learning to mathematical teaching and learning in the class.

Preparation.

Before the teaching and learning, the teachers should choose an appropriate problem to explore and mastery the problem



SELLING THE DRAGON FRUIT

Source: http:www//http://pangeranhasan.blogspot.co.id/2008/10/jember-menegaskan-posisi-sentra-buah.html

Mr. Edi, Mr. Bayu and Mr. Budi want to sell their dragon fruit crops. They use a motorcycle to deliver their dragon fuits. There are two alternative ways in selling their dragon fruits, directly sell it to the market or sell it to the other seller. Mr. Edi's house and the market are 9 km apart. The ratio of the distance between houses of Mr. Edi, Mr. Davis, and Mr. Budi to the market sequentially is 3: 4: 5.
If gasoline needed for a certain distance is directly proportional to the distance, then Which of these statements is true? Give your reasons!

i. The gasoline needed by Mr. Bayu to go to the Mr. Edi's house is as much as the gasoline needed by Mr. Bayu to go to the Mr. Budi's house.
ii. The rasio of the gasoline needed to go to the market is equal with the ratio of the distance between homes to the market
iii. The gasoline needed by Mr. Bayu to go to the market is $\frac{4}{5}$ of the gasoline needed by Mr. Edi to go to the market.

Figure 1. Examples of Problem Based on Local Culture

The domain of the problem
Content: change and relationship
Context: occupational
Process: employing mathematical concepts, facts, procedures, and reasoning;

The context used in this problem is occupational. The local culture inserted to this problem is the fact that some of the Jember community are farmer, and trader. Besides the beautiful view of the town of Jember, from the top of Rembangan tour destination are also seen some farms, paddys and beautifull mountains views. Jember Tourism Rembangan surrounded by coffee plantations and dragon fruit plantations. And this region became the largest supplier of dragon fruit in Jember. On the journey to the sights of this winding, all eyes will be treated by the dense of dragon fruit plantations. Many houses cultivate dragon fruit in the yard of their house or along the road. To sell crops dragon fruit, usually local people sell in the local market, or at a specific location on the edge of the road along with the other sellers within the house or farm. They will take the second option if they are far away from the local market. Of course, the further away will be even greater sales costs necessary. By this context, the students are leading to understand the problems through local culture.

Based on the observation before the teaching and learning, we found that teachers who try to solve the problem at first before give it to the students have a better fluency in delivering the problem than teachers who are just trying to understand the problem through reading. This is because; they have more learning experience to be used when teaching mathematical literacy.

Teaching and Learning Process

The prerequisites material required to solve these problems are cicle and distance, ratio, and numbers operation. Students need the knowledge about circles to describe the position

between houses and markets. Consider that the market as the central point of the circle then the position of Mr.Edy's, Mr. Budi's and Mr. Bayu's house are varied infinitely specific locations as long as the circumference of the circle. The other prerequisites material is ratio. Students need to interpret the meaning of the ratio and use of the concept of ratio to be able to choose the statement that is true. The students must understand that the farther the distance the more gasoline they need. Number operations are necessary if the student prefers involve mental processes and calculation to solve the problems.

Based on the teaching and learning observation, the teacher has delivered this prerequisite material in the orientation stage through classical question and aswer. At the first teaching and learning set, the activities of this classical question and answer can not activated all students. Only certain students are actively asking or answering. By the observation, we know that after a few times teaching and learning using this model, students are increasingly accustomed to and actively asking or answering

There are three important things to do by the students in mathematics problem solving performance modeling such that it can use to teach mathematical literacy to student. While students do their task, the teacher also has to do their role to facilitate the students. Here are the brief explanations.

Student has to solve the problem individually by referring to the problem solving guidelines based on Polya.

Before ask students to solve the problems, the student should be informed the minimum ability in solving the problem expected by the teacher. Teacher are required to communicate the assessment indicators of students problem solving skills through problem-solving guidelines. When students try to solve the problem individually, the teachers should be go arround to observe the students' work and try to find students difficulties in solving the problem.

Based on observation in this study, the teacher can detect the students' difficulties in solving the problem individually, such as:

a. Students can understand the problem but student have difficulties in finding and communicating problem-solving strategies. The use of context that closed to the student would help students to understand the problem, but unfamiliarity of students to communicate the problem solving strategy makes students difficulties in solving problems logically.
b. Students have difficulties to think divergently because they don't have a meaning full understanding about some concept. Therefore, the solution with the previous procedure that they have learnt is the only thing to think. They think without considering the possibility of other alternative. For example, students were only able to draw a plan such that the market and each house are in a straight line in the same direction. They usual to draw a position of two or more object in one straight line, and their understanding about the concept of circle are not adequate enough.

Students' must be communicating their idea or the result of the group discussion to other groups or teacher in orally or in writing.

Communicating of thoughts is another form of role as the member of the group. By the observation, in a group only certain students who braved to express their thoughts, while others prefer to keep silence. Sometimes, it is not always because they did not have any idea but they are reluctant to communicate it. This may often occur for the first or second times using this model of teaching. In the next meeting the teachers continuously try to facilitate the students who are not active in group discussions but have an answer or idea (even though incomplete solution) on individual problem exemplar. By these methods, teachers could foster the students such that they would communicate their thoughts. Similarly, in the class

discussion the teacher has an important role in fostering students and groups to be able to understand the problem, to plan, to formulate and to apply their knowledge and mathematics concepts to solve problems. Each step is important to be reaffirmed by the teacher. Thus, students can learn problem solving skills and mathematical literacy.

For the problem presented above, the teacher should take some strategy such as: explain the meaning of the concepts related to the problem and show about how to use the concepts. In addition, other strategy also should be taking giving some examples about how is the strategy to understanding the problem, such as: draw a sketch of the problem, underline the importance words or terms.

Students must be Asses their problem solving performance indivually or in group.

Experiences in assessing their problem solving performance by their self will lead them to the understanding of what should they do and not to do in solving a problem. In asseasing their performance, they use a student rubric (Lestari and Suwito, 2015) which contain indicators of mathematical literacy that combined with problem solving ability. In order to give student knowledge of how to assess a performance, the teacher must present an example in assessing the performance of at least one group. At first the students ask to assess the ability of the group performance based on the student work sheet, this activity aimed to train the student in assessing the performance. Next, students will learn to assess their individual performance in the next exemplar problem.

DISCUSSION

Preparation is a step for choosing or developing the teaching equipment. In choosing the teaching equipment there are some things to be consider, ie.

1. Wheter the content and material in a device have been learned the students?
   Due to the integration of mathematical literacy in mathematics uses mathematics problem solving performance modeling model of teaching then the content of the materials used must be content that at least the concept has been learned. Thus, students have the knowledge to be selected and applied in solving mathematical problems in everyday life. Teacher guided on the school curriculum to see whether the content of such material has been owned by the students or not
2. Does the context used in the problems a context that close to the students?
   Understanding of the problem is the fundamental needed to solve a problem especially mathematics literacy problem. Indonesian students are not familiar with the problem that present as mathematics literacy problem Therefore, the context used must be close to the students. One of context that suitable to this requisition is the local culture context. By the research, there are several advantages associated with the use of local culture as the context of the problems.
   a. Local culture context will be easier the students to understand mathematical literacy problems. The problem in local culture context is actually experienced by their self or it is around the students.
   b. Local culture context provide regional insight for students to know the culture of the region of students.
   c. Local culture context will attract students to learn. They feel that they know the context in the problem.
3. What objects of mathematical are to be taught to the students?
   Mathematical objects in this paper are definitions, facts, concepts and principles (Bell, 1992). Each object associated with the content, context and process must be taught or refreshed to students and interpreted by students

If the equipment owned is not qualified in these considerations, teachers should adapt the devices such that it match to the characteristics and abilities of students

CONCLUSSION

Based on the research results, some fundamental things are needed to integrate mathematical literacy in mathematics. The first is the selection of the appropriate context of the students' problems. The appropriate context can use the existing context in the local culture of students. The second is the understanding of the objects of mathematics. It is important to build students' understanding of the problems such that students are expected to be able to take the first steps to develop strategies for problem solving. The third is the habituation to the mathematics literacy problems through mathematics problem solving performance modeling model of teaching can improve mathematical literacy and sensitivity, as well as skills in solving daily problems

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REFFERENCES

Bruce Brown and Marc Schafer. Teacher education for Mathematical Literacy:A modelling approach.

De-Lange, J. 2006. Mathematical literacy for living from OECD-PISA perspective. http://www.human.tsukuba.ac.jp/~mathedu/2503.pdf Accessed 18/08/2016.

Depdikbud. 2013. *Permendikbud No 65. Tahun 2013 tentang Standar Proses Pendidikan Dasar dan Menengah. http://www.slideshare.net/alvinnoor/permendikbud-nomor-65-tahun-2013-tentang-standar-proses-23256577. Accessed 10/09/2015*

Duba, T. 2004. Mathematical Literacy: An International Perspective. *Paper presented at the Shuttleworth Mathematical Literacy Seminar, Cape Town, February (2004)*

Laridon, P. 2004. Mathematical Literacy and the FET Curriculum. *Paper presented at the Shuttleworth Mathematical Literacy Seminar,nCape Town, February 2004.*(2004).

Lestari, N.D.S., & Sugiarti, T. 2014. Designing Mathematics Model of Teaching: The syntax of "Problem-Solving Performance Modelling" Model of Teaching. In *International Seminar on Innovation in Mathematics and Mathematics Education*. Departement of Mathematics Education Faculty of Mathematics and Natural Science Yogyakarta State University.

Lestari, N.D.S., and Suwito, A. 2015. Pengembangan Perangkat Pembelajaran Matematika Berbasis Budaya Lokal Melalui Scientific Approach untuk Meningkatkan Kemampuan Mathemathical Literacy Siswa SMP Kelas VII di Jember. (Unpunlished research report, Jember University.

OECD. 2013. *PISA 2009* Assessment framework key competencies in reading, mathematics and science. (OECD, 2009). *http://www.oecd.org.* Accessed 17/10/2013

OECD. 2013. *PISA 2012 Result. PISA 2012 Results. in FocusWhat 15-year-olds knowand what they can dowith what they know*. (OECD,2013). http://www.oecd.org. Accessed 15/04/2014.

PISA. 2003. Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills. (2003). https://www.oecd.org/edu/school/programmeforinternationalstudentassessmentpisa/33694881.pdf. Accessed 18/9/2016

PISA 2015. Draft Mathematics Framework. (2015). https://www.oecd.org/pisa/pisaproducts/Draft%20PISA%202015%20Mathematics%20Framework%20.pdf. Accessed 20/08/2016

Pythagoras 64, December, 2006, pythagoras.org.za/index.php/pythagoras/article/download/98/102. Accessed 20/08/2016

Stacey, K. 2011. The PISA View of Mathematical Literacy in Indonesia. IndoMS. J.M.E. Vol. 2 No. 2. (July 2011). (http://files.eric.ed.gov/fulltext/EJ1078641.pdf. Accessed 20/06/2016) pp. 95-126.

Steen, L. 2001. The Case for Quantitative Literacy. In L. A. Steen (Ed.), *Mathematics and Democracy: The Case for Quantitative Literacy* (pp. 1-22). (USA: National Council on Education and the Disciplines). http://www.maa.org/sites/default/files/pdf/QL/MathAndDemocracy.pdf. Accessed 05/08/2016

Design of Learning Media for Investment Management Study

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Abstract: Share prices on the stock exchange (secondary market) are influenced by supply and demand. Investors in any decision-making are always dependent on the information they receive. Investors need complete, relevant, accurate, and timely information to make investment decisions, whether they will buy, sell or hold existing shares. It is necessary to have a software that can provide an accurate information, which can help investors to determine the value of current shares. The purpose of this research is to design Investment Decision Support Software, that is connected online to the Indonesia Stock Exchange (www.idx.com), so it can be useful to users of financial statements The research method is the product development process and expert judgment (validation and revision). This software can also be beneficial for the learning process of accounting, especially Investment Management Study, which addresses the issue of stock assessment for investment decisions, because the discussion of the stock assessment in the classroom is limited to the understanding of the theoretical approach, and do not connected directly on the condition of the companies listed on the Stock Exchange.

Keywords: intrinsic value of share, investment decision support software, stock price

Sharpe et al., (1995) stat that investment is the sacrifice of present money to get money in the future, while Jones (1998) stat that investment is the commitment of funds to one or more assets that will be held over some future time period. In general, the investment, there are two types of assets: real assets and financial assets. Both of these assets could equally be considered as an investment in order to achieve the desired financial goals of investors. Real assets are assets that have physical form, such as land, gold, houses, and precious metals, while financial assets are assets that have no physical form, such as stocks and bonds. In investing, there is always a risk of loss of capital. Therefore, investors need to know the real asset value suitable for investment and investors should make a good decision for their investments.

Investor protection can be done by making a stock valuation. Share prices on the stock exchange (secondary market) are influenced by supply and demand. Stock valuation includes Book Value, Market Value and Intrinsic Value. If the market price is higher than its intrinsic value, then the shares eligible to be sold, because it is considered too expensive (overvalued). Conversely, if the market price is lower than its intrinsic value, the stock is worth to buy, because it is considered too cheap (undervalued). If the market price is equal to its intrinsic value, the stock is worth to remain held. Jogiyanto (1998) stated that there are two kinds of analysis used to determine the true value of the stock is fundamental analysis and technical analysis. Fundamental analysis uses fundamental data, such as data derived from the financial companies (such as earnings, dividends paid, sales, and so on). While technical analysis of stock market data (for example, price and volume of stock transactions) to determine the value of the shares.

Investors in any decision-making are always dependent on the information they receive. Investors need complete, relevant, accurate, and timely information to make investment decisions, whether they will buy, sell or hold existing shares. It is necessary to have a software

that can provide accurate information, which can help investors to determine the value of current shares. Vyas (2012) found that a lot of number investors didn't analyze the investment risk and, they were depending upon the broker to make the investment decision. Sigh (2012) stated that individual investors have to create awareness of the various human biases on their portfolios and argues for voluntary detachment from the emotion inherent in investing.

METHODS

The flow chart of product development research is:

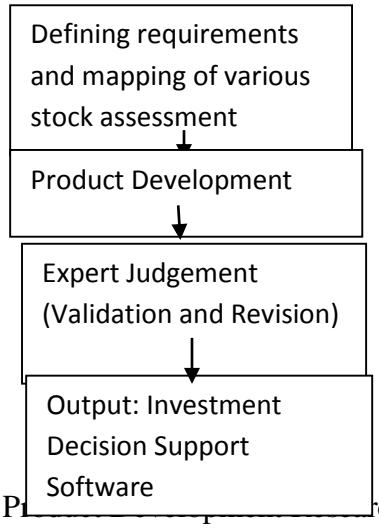


Figure 1. P[illegible]rch Flow Chart

Explanation

This study has several stages: Requirement Analysis, Product Development, Expert Judgement (validation and revision). From the results of expert validation, then be revised in accordance with the advice given by experts in the field of accounting studies. After doing revision, then Investment Decision Support Software is ready to be implemented and evaluated.

In designing this software using SDLC approach (System Development Life Cycle). Which is the system development life cycle of information that must be passed by each information system development project, as it was outlined in several books (Martin et al. (1994); Bodnar and Hopwood (1995); Mc Leod (1995)). MC Leod (1995) classifies the SDLC into five phases, namely: planning phase, analysis phase, design phase, implementation phase, and the use phase. While the book written by Martin et al., (1994) divides the SDLC into three phases, namely the definition phase (feasibility analysis, requirements definition), construction phase (system design, system building, system testing), and implementation phase *(installation, operations and maintenance)*.

Definition Phase

Defining exactly what to do in detail the system so that the computer specialist can build the necessary systems. An analysis is made to relate to the following levels:

Feasibility Analysis, in this stage of defining as clearly as possible about what to do system, such as what is the expected output, the input must be received / entered, the main database what is needed, and how output should be available. Important activities in this

feasibility study are to define the scope (scope) or limitations (boundaries) with the right, who will be served, what to do and what not to do, what data are included, and what data were not included. In a feasibility analysis is also performed analysis of the cost and benefits to be achieved by the system.

Requirements definition. The whole process of SDLC depends on defining requirements made herein, which include defining what will be done by the system accurately and completely.

With the help of the user-manager, analysts produce a document needs a thorough system (comprehensive system requirements document), which contains a detailed description of the output of the system and processes used to convert input data into output. This document also contains an evaluation of the costs and benefits of new systems and an improvement plan for the further development process. The document is at the core definition phase, and must be approved by the parties concerned. Once approved, these needs are considered permanent and essentially cannot be changed by the operation and maintenance phase. Thus, managers should feel confident that the requirements document has to explain all the system requirements are accurate and complete.

Construction Phase

a. System Design.
   Based on document system requirements (system requirements definition), a specialist Information Systems (IS) design a system that can satisfy all the needs that exist. The system design includes decisions about what hardware and software that will be used to run the system, plan content and structure of the database that will be used, define the processing modules (programs builder system) and the relationship between the modules with other modules.
   This stage will produce a document that describes in detail how the system will work. This document will be given to programmers to create computer code and database for the system, which includes charts that describe the structure of the system, a detailed description of the database and file, detailed specifications for each of the programs in the system, the plan of the programming process, the system test plan, and a plan for conversion and installation of the system.
b. Building and Testing the System.
   There are two activities that include the construction of a system (building), the first is to make computer programs, and the second is to create a database and detailed design files used by the system. IS specialists usually decide the configuration of hardware, system software, database management system (DBMS), and programming languages. IS specialists test each module of the system is generated, and also a test of the whole system. Final testing will involve the user to ensure that the system can work properly in the user environment.

Implementation Phase

a. Installing the System.
   The main activities that are quite important in this phase is the conversion of data, the strategy of transition from the old system to the new system, and training to those who are involved in the new system as well as to motivate them to change the pattern of the old

habits, because if users do not understand how to use the system and resist change, then the system will fail. At this stage of training for system operators.

b. **Operations and Maintenance**. The last stage of the SDLC is operation and maintenance phase. Environmental and organizational needs can change rapidly, the new system may be obsolete before the installation is therefore necessary to do some modifications to the system. The process of modifying the system in order to adapt to the changing needs of the organization with regard to the maintenance of the system. Maintenance of these systems will also follow the flow of SDLC, and can also be an improvement from the previous system or it can be the making of the new system,

TYPE OF DATA

The data used in this research is quantitative data and qualitative data. Quantitative data are an assessment based on the average percentage assessment of the Investment Decision Support Software of quantitative data will be used to infer the validity of this software. Qualitative data in the form of comments, criticisms and suggestions in the form of comments from the validator to this software. The indicators used are: Accuracy formula used, Ease of Operation This Software, Presentation materials are correct, and Clarity Software User's Guide.

Validation Instrument

Instruments used in the validation of a questionnaire. This questionnaire using a Likert scale (4 scale). Criteria for each rating scale is as follows:
Score 4 If excellent / very interesting / clear / is very easy / very precise / highly fit / very decent
Score 3 If the good / interesting / obvious / easy / appropriate / feasible
Score 2 If no good / unattractive / unclear / no easy / false / not fit / unfit
Score 1 if it is not good / very unappealing / very unclear / is not very easy / very imprecise / was incompatible / not very feasible.

The questionnaire used as an instrument in the validation of the software also includes comments and suggestions section validator as a further revision

Data Analysis Technique

For qualitative data, the analysis carried out an analysis of suggestions, comments, and criticism of the validator, whereas for quantitative data analysis used analysis techniques percentage, according to the formula:

$$P = \frac{\sum x}{\sum x1} \times 100\ \%$$

Explanation:
P = Persentage
$\sum x$ = Number of answers of all respondents in 1 item
$\sum x1$ = Number of ideal answer in 1 item

To determine the conclusion, each item are validated by several criteria:

Table 1. Validation Criteria

ANSWER	CRITERIA

80-100	Valid
60 - 79	Valid Enough
40 - 59	Less Valid (Revisi)
0 - 39	Not Valid (Revisi)

(Adaptation from Sudjana (2005)

Revision

Revision of the Investment Decision Support Software is based on the feedback received from the expert.

Achievement Indicators: Investment Decision Support Software that has been revised in accordance to the feedback from the expert.

RESULTS AND DISCUSSION

Based on expert analysis of the suitability of the material (conformity with existing theory, the suitability of the material with learning objectives), the material accuracy (the accuracy of definitions, formulas and illustrations) and assessment software operation (Instructions for Use Software Clarity and Ease of Operation) has meet the criteria, so the Investment Decision Support Software declared invalid and does not need to make revisions

Table 2: Validation from Expert

No	Explanation	Score		Prosentage (%)	Result
		X	Xi		
1	The Suitability Of The Material				
a.	The material presented is in accordance with the prevailing theory	3	4	75	Valid Enough
b.	The material presented is in accordance with the learning outcome	4	4	100	Valid
	Average	3,5	4	87,5	Valid
2	The Accuration of Material				
a.	Definition Accuracy	4	4	100	Valid
b.	Formula Accuracy	4	4	100	Valid
c	Ilustration Accuracy	3	4	75	Valid Enough
	Average	3,67	4	91,6	Valid
3	Software Operation				
a	Clarity Instruction	3	4	75	Valid enough
b	Ease of Operation	3	4	75	Valid enough
	Average	3	4	75	Valid Enough

Tablel 4: Summary

No	Komponen yang dinilai	Persentase	Kriteria Kevalidan

1	The Suitability Of The Material	87,5 %	Valid/ Be Used
2	The Accuration of Material	91,6 %	Valid/ Be Used
3	Software Operation	75 %	Valid Enough/Be Used

The results as follows:

Main Menu, the main menu contains Input data (to fill the data companies that go public), calculate Intrinsic Value (to calculate the intrinsic value of shares using a variety of existing models, such as: Discount Model and PER Model and Exit menu (to exit from the program).

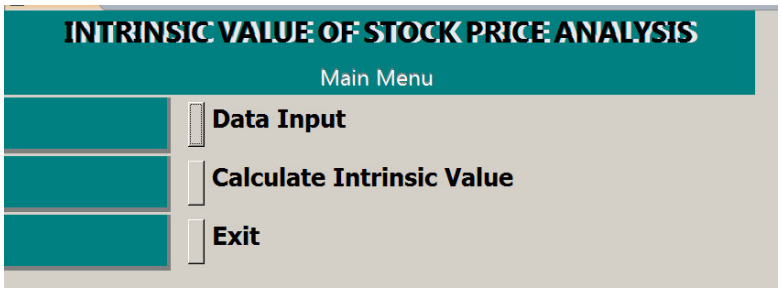


Figure 2. Main Menu

Input Data

Input data contains several menus, such as: Company Data, Deviden Data dan Earning Per Share data.

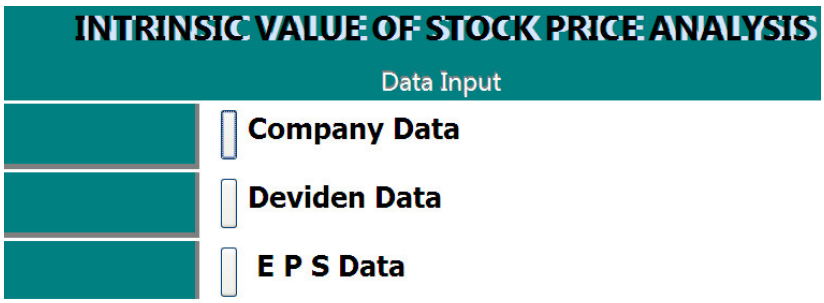


Figure 3. Input Data

Company Data

Company Data contains menu: Company Data Input, Edit Company Data, and Back To Previous Menu

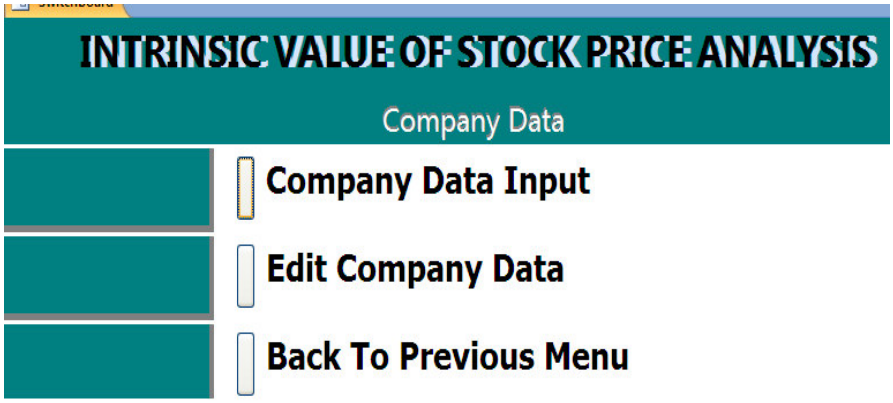


Figure 4. Company Data

Company Data Input

In this menu the user can input data company, by writing the company code in accordance to the company code in the stock exchange. In this menu user can select the desired web, taken from Indonesia stock exchange (www. idx.co.id) or from www. yahoofinance.com

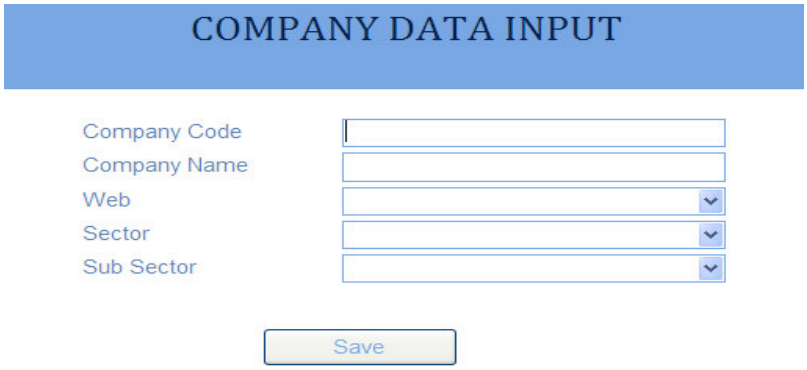


Figure 5. Company Data Input

1. Edit Company Data
   This menu is used to edit the company data that we have been previously entered

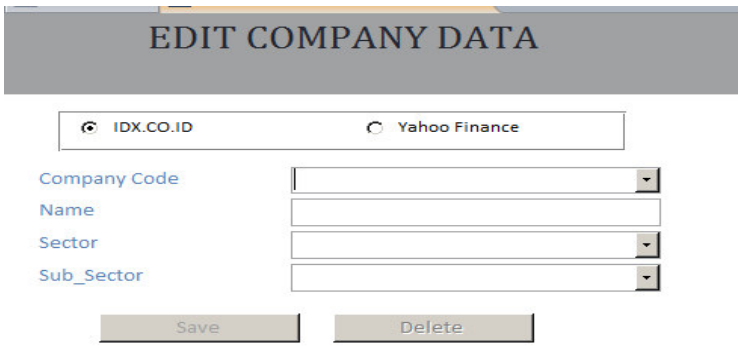


Figure 6. Edit Company Data

2. Deviden Data
   This menu contains information about dividen. This menu is connected online to www.idx.co.id dan www.yahoofinance.com, so the user can enter the real dividen data, according ot the company financial statement..

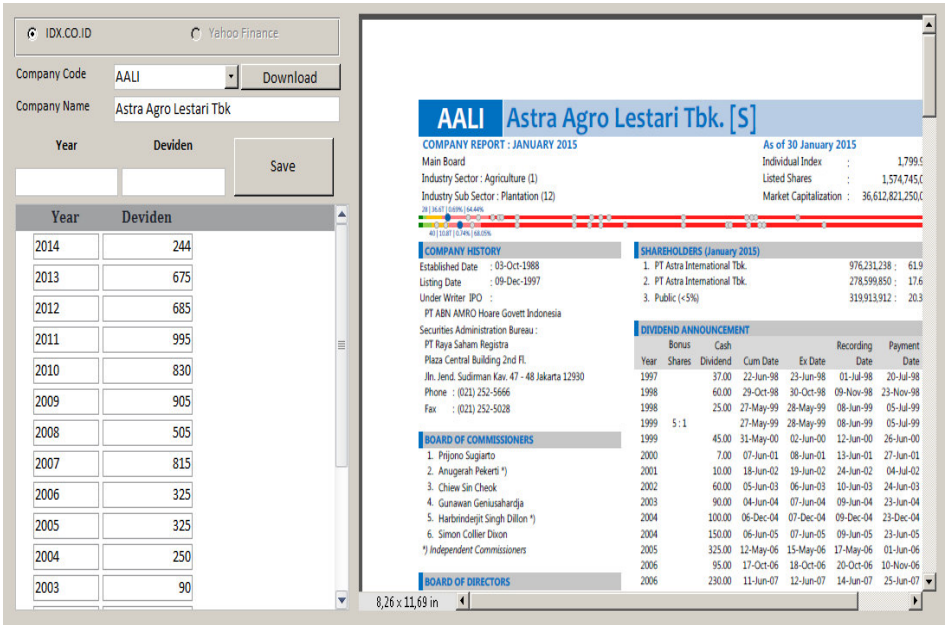


Figure 7. Deviden Data

3. EPS Data
   This menu contains information about Earning Per Share data. . This menu is connected online to www.idx.co.id and www.yahoofinance.com, so the user can enter Earning Per Share data, according to the company financial statement.

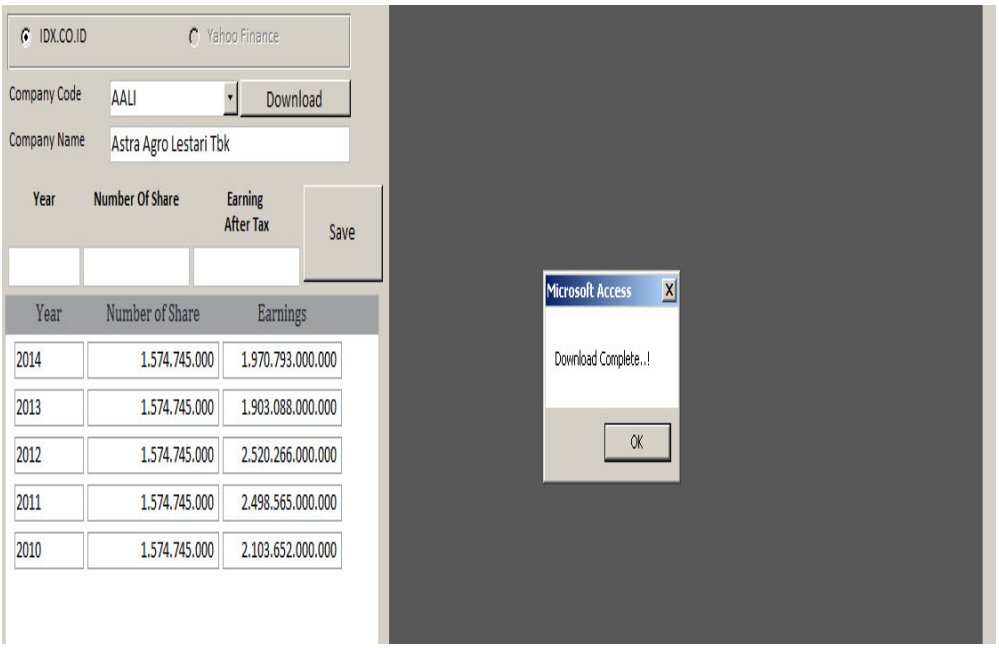


Figure 8. EPS Data

4. Data display of EPS after downloaded:

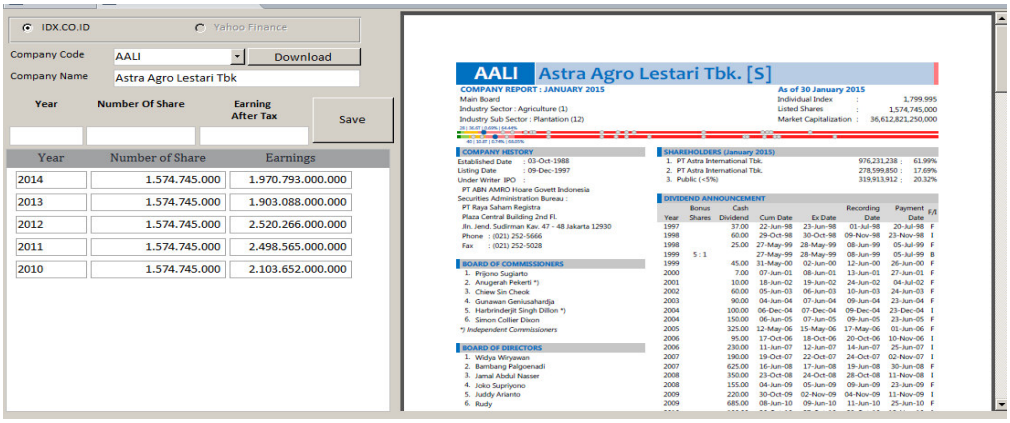
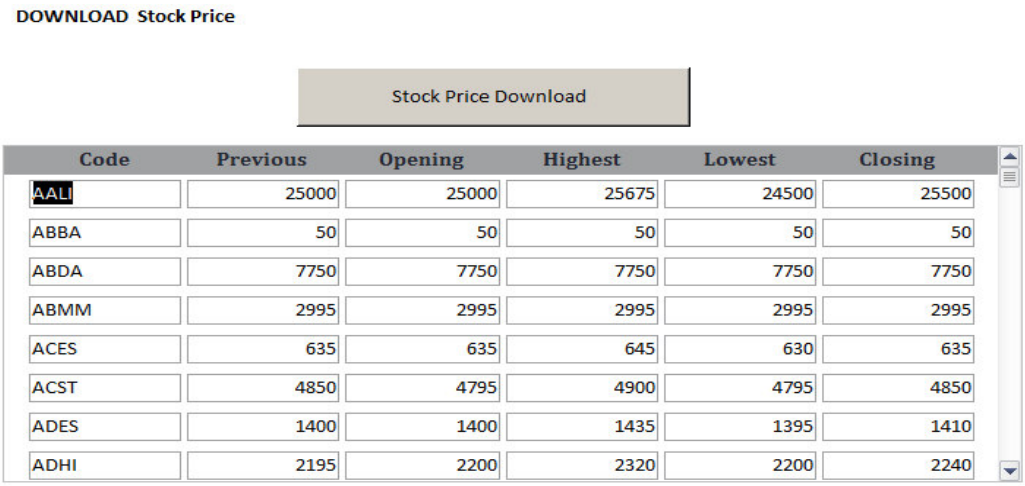


Figure 9. EPS display

5. Stock Price Data
   This menu is to downlod stock price data



Code	Previous	Opening	Highest	Lowest	Closing
AALI	25000	25000	25675	24500	25500
ABBA	50	50	50	50	50
ABDA	7750	7750	7750	7750	7750
ABMM	2995	2995	2995	2995	2995
ACES	635	635	645	630	635
ACST	4850	4795	4900	4795	4850
ADES	1400	1400	1435	1395	1410
ADHI	2195	2200	2320	2200	2240

Figure 10. Stock Price Data

6. Calculate Intrinsic Value
   The menu is in the "Main Menu". This menu is used to determine the value of shares based intirinsik PER Discount Model and the Model.

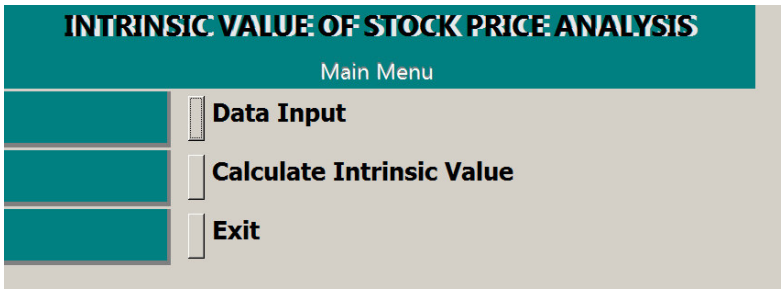


Figure 11. main Menu

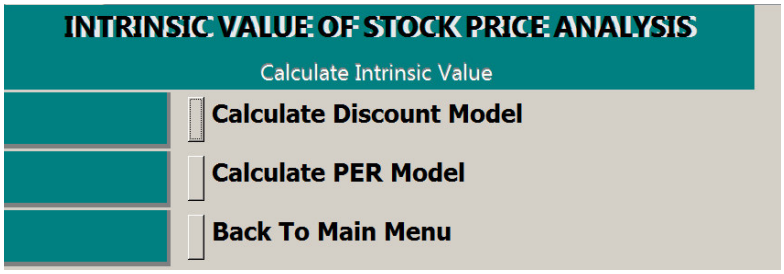


Figure 12 Calculate Intrinsic Value

7. Calculate Discount Model
   Discount model is used to determine the intrinsic value of stock

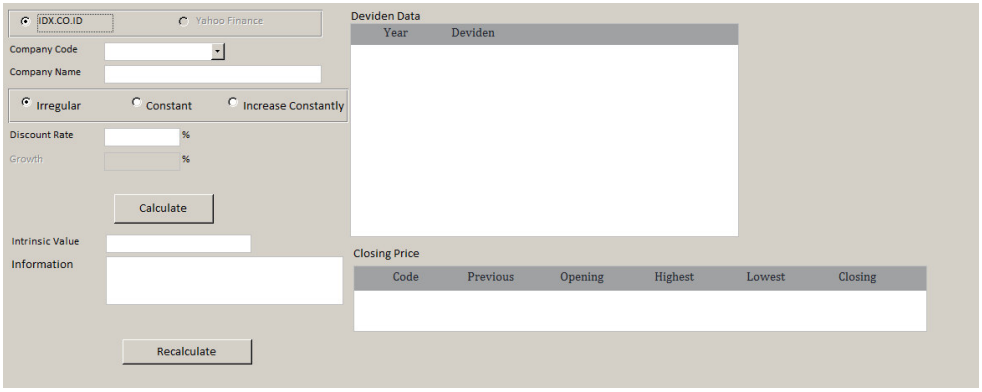


Figure 13. Calculate Discount Model

On this menu there are three options for the distribution of dividends, such as:
a. Dividends distributed irregularly
b. Dividends distributed constantly
c. Dividends distributed increased constantly.

This menu also contains information about the current discount rate. After entering the discount rate, then the software will immediately calculate the intrinsic value of stock, and compared with the current share price. In the information section, there are recommendations to assist decision making for investors whether to buy, sell, or hold the existing shares.

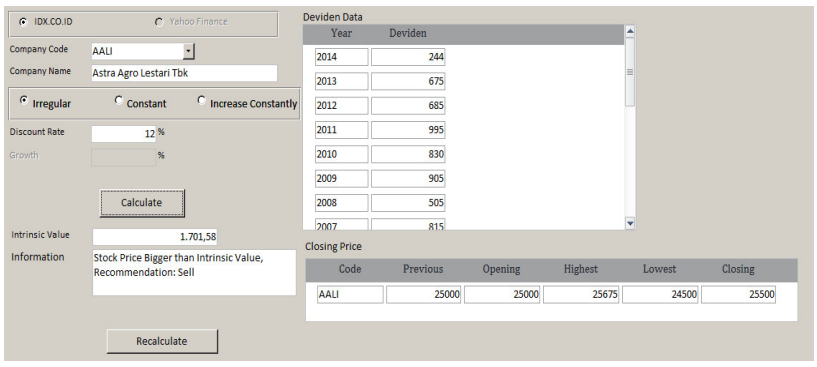


Figure 14. Display Calculate Discount Model

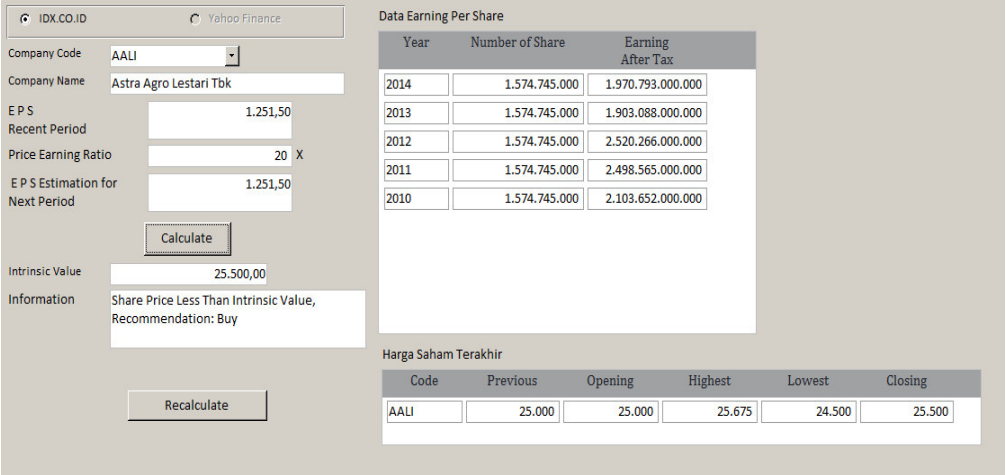


Figure 14. Display of EPS

SUMMARY

This research has produced Investment Decision Support Software, which has been validated by materials experts (expert judgment). Investment Decision Support Software use several models, such as: Discount Model and PER Model. The use of some of these models, in order to do a comparison of calculation results. This software is expected to help investors in making investment decisions

REFERENCES

Bodnar, G.H., & William S.H. 1995., *Accounting Information Systems* Prentice Hall International 6th Ed.

Chusing, B.E. 1994. *Accounting Information Systems and Business Organizations,* Philipines: Addison-Wesley Publishign Company, Inc.

Jones, C.P.1998. Investments, John, Wiley & Sons

Jogiyanto, H.M. 1997. *Sistem Informasi Akuntansi Berbasis Komputer*, Edisi 2, BPFE-Yogyakarta

Jogiyanto, H.M. 1998. Teori Portofolio dan Analisis Investasi, Edisi 1 BPFE Yogyakarta

Martin, H., DeHayes & Perkins.1994. *Managing Information Technology, What Managers Need To Know.* Macmilian Publishing Company.

McLeod, R. 1995. *Management Information Systems*, Simon & Schuster (Asia) Pte,LTd.

Sharpe, W.F., Alexander, G.J, & Bailey, J. 1995. Invesment. Prentice Hall, Inc.

Singh, S. 2012. Investor Irationality and Self Defeating Behavior: Insights from Behavioral Finance, The Journal of Global Business Management, Vol.8m Number 1, February 2012

Sudjana, N. 2005. *Media pengajaran (Penggunaan dan Pembuatannya)*. Bandung: Percetakan Sinar Baru Algensindo Offset

Scott, W.R. 2000. "Financial Accounting Theory". Prentice-Hall International, Inc.., New Jersey.

Suranta, E. & Merdistuti, P.P. 2004 *Income Smoothing*, Tobin's Q, *Agency Problems Dan Kinerja Perusahaan*. Simposium Nasional Akuntansi VII ,2-3 Desember. Denpasar, Bali.

Vyas, R. 2012. Mutual Fund Investor's Behavior and Perception in Indore City. International Refereed Research Journal Volm III, Issuer-2 (1) July, 2012

Yamin, M. 2007. *Desain Pembelajaran berbasis Tingkat Satuan Pendidikan*. Jakarta: Gaung Persada Press.

Instructional of Character Education in the Context of Irfani-Akhlaqi Tasawuf

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Abstract: The purpose of this study is using of *Tasawuf Irfani-Akhlaki* to solve the problem; because it is a sophistic-mental education that enhances human beings to become sufistikists and humanists. Such kind of education is also implemented in *majlis Dzikir Manaqib Syaikh Abdul Qadir Jailani* in Al-Qodiri Islamic boarding house Jember which attract more followers every years, both local and foreigners. Islamic scholars and *umara'* believe as well as acknowledge this *majlis* as a place of instruction to solve this crisis of character faced by both religion and nation. From this rationale, this study focuses on the Concept of Character Education in the Perspective of *Dzikir Manaqib Shaykh Abdul Qadir Jilani* in Al-Qodiri Islamic boarding house, Jember. In this study, the researcher uses a qualitative approach on case study and collects the data through participant observation, interviews, as well as documentation. Moreover, the data will be analyzed by using the technique of interactive model analysis from Miles and Huberman and the validity of the data uses triangulation of sources and methods. After analyzing the collected data, it can be concluded that: (1) instruction of character education is a process of internalization and familiarization of sufistik values sourced from *ahlussunnah waljamaah*; (2) the instruction goal of character education is to shape the character of *Dzikir Manaqib* followers based on *Pancasila* within the basis of sufistik values, so that they can apply it in religious life, community, and the nation with the hope of getting the blessings, *syafaat* from prophet Muhammad, as well as *ridho* from Allah SWT; (3) the instruction values of character education includes the value of divinity, *zuhud*/simplicity, humanity, wisdom and deliberation, unity (ukhuwah Islamiyah) and justice; and (4) the instruction implementation of character education is done within three stages, namely: *takhalli, tahalli* and *tajalli*.

Keywords: character education, tasawuf irfani-akhlaqi

The reality of religious tolerance in Indonesia has always been rocked by the incipient radicalism that can be found everywhere. Ironically, it is always been related to certain religion. Moreover it is against Pancasila as the philosophy and ideology of the nation, especially when they championed the concept of Islamic caliphate. Pancasila is recognized by all religious people as the foundation of the nation. While the concept of Islamic caliphate is in contrary with Pancasila itself, is only accepted by Muslims minority in Indonesia. Thus, it can be said that the radicalism against Pancasila as the ideology of Indonesia.

The radicalism itself comes from a learning process executed properly. Sarwono in Riyanta (2015: 2) in his research mentions that, at first, the terrorist joins an Islamic extremist study groups. Once they are in the group, they will be recruited and have educators (*ustadz)* who give them knowledge about Islamic teachings, cultivation of values, or forming an extreme character as well. Within the learning process, they use doctrinal methods to facilitate the learning process in order to achieve their desired objectives.

Nasir Abbas (former activists of the *Jamaah Islamiah*) states that in the learning process, there are several stages to go through. namely: 1) *tabligh* (messaging/giving advice in general

sense in form of Tabligh Akbar, teaching activities, extracurricular activities etc., 2) *ta'lim* (transferring the knowledge about radical Islamic teachings and values on character building of hatred and violence against people who are considered as enemies, 3) *tamrin* (transferring attitude in the form of training or practicing violence), 4) *tamhish* (selecting process of learners / potential terrorists who had already gone through the learning process) and, 5) *bai'at* (completing *bai'at* as the requirement to be a member). Therefore, the learning process in creating a generation of terrorists is carried out systematically (Riyanta, 2015: 5-6).

From this surprising fact that can endanger the existence of Pancasila and the life of the nation, there are several ways that can be done to overcome this problem, such as by following and implementing the learning process in the form of character education based on *amaliyah sufistik*. *Amaliyah sufistik* which is included as an example of non-formal education that can be done in varied ways. Ones of them are *majlis dhikr* and *solawat*. Within this particular ways, there will be such a process of concealing the teachings of religion (sometimes also knowledge about national and state) and the character building of Muslims who would maintain Pancasila, the state and the nation of Indonesia. *Amaliyah sufistik* is mostly done by the community of Nahdlatul Ulama (NU), which institutionally led by KH. Hasyim Ashari is reinforced by KH. Ahmad Siddiq and KH. Abdurrahman Wahid admitted Pancasila as the basis of the Indonesian nation (Muzadi, 2006: 75-76). Kyai Azaim (2015) explains that following and implementing *amaliyah sufistik* in the form of dhikr ceremony and sholawat such as doing solawat with Habib Sych is regared as an effort to create a generation that is able to keep the state and the nation of Indonesia as well as Pancasila as the ideology of the nation. Therefore, following and implementing *amaliyah sufistik* is considered to be an attempt to keep Indonesian nation from all kind of radicalism.

In the concept of *amaliyah sufistik* in the form of *dzikir* and *shalawat*, there is a core process of learning. In such educational character learning process, there is a learning interaction between educators (priests, clerics and so on) with learners (pilgrim of *dzikir* and *shalawat*). The priest/kyais as educators served as the guidance directing the pilgrims as learners who are always close to God Almighty, understanding Islam correctly, forming a good character (*akhlakul karimah*), maintaining unity, and so forth. Hence, such learning process is not only to create an Islamic generation, but also generation of Pancasila who always maintain, uphold and practice the values of Pancasila itself.

Educational character learning which is usually done at the *amaliyah sufistik* learning process is applied at events such as *Dhikr Manaqib Shaykh Abdul Qadir Jilani* in Al-Qodiri Islamic Boarding house Jember and *Solawat Ahbabul Mushthofa* at Miftahul Hidayah Islamic Boarding house Rambipuji Jember. *Dhikr Manaqib* is an example of Sufism Irfani based on the application of *amaliyah-akhlaki*. In this activity, it is not only strived to get closer to God, but also as a container of a good character building. *Dhikr Manaqib* remembrance activities carried out on Thursday night, especially on *legi* Thursday night. The congregation came from different backgrounds and come together to worship God with the hope that they become servants beloved by God and beneficial for other people, nation, and religion (results of several interviews and observations, since following the *Dhikr Manaqib* in 2012).

This particular activity is also recognized to be very beneficial to the community as a place to establish and develop character of humanist by various figures and scholars. One of them is KH. Said Aqil Siradj (Chairman of the NU). He explained that: "the *Dhikr* developed contains the spirit of human liberation from all forms of marginalization, oppression and discrimination, also an antibody that causes some people to have a resistance to every kind of hardships that befall him" (Chotib, 2015: 419-420).

Based on the context of the study above, the researchers are interested to carry out more comprehensive research on Learning Character Education in the Context of Sufism *Irfani-*

Akhlaki. This study is also kind of a basic research that is grounded in the science of descriptive and executed at the level of science (Reigelut, Bunderson, and Merrill in Degeng, 2013: 32)

RESEARCH METHOD

This study used a qualitative approach on case study and collects the data through participant observation, interviews, as well as documentation. Moreover, the data will be analyzed by using the technique of interactive model analysis from Miles and Huberman and used triangulation of sources and methods of the validity within the data.

DISCUSSION

The Nature of Instructional Character Education in the Context of Irfani-Akhlaqi Tasawuf

The term learning derived from the term "to learn". Learning means efforts to change behavior. So, learning will carry out a change within the studied individuals. The changes are not only related to the addition of certain knowledge, but also in the form of skills, competences, attitudes, sense of self-esteem, interests, characters, and self-adjustment. In addition, Crow and Crow (in Fudyartarto, 2002: 151) defines that "learning is an active process that need to be stimulated and guided toward desirable outcomes. Learning is the acquisition of habits, knowledge and attitudes." While Skinner (in Shah, 2005) describes that learning is a process of adaptation or adjustment of behavior that takes place progressively. This opinion confirms that learning is ... a process of progressive behavior adaptation. As experiments conducted by B.F. Skinner shows that the adaptation process will bring optimal results when it is given a booster (*reinforce*).

This character education is considered to be an effort to conceal intelligence in mind. An appreciation in the form of attitudes and practice within behavior is in accordance with the noble values that became his true identity, embodied in the interactions toward God, oneself, among others, and the environment (Zaini, 2011: 5). According to Madiatmaja (Madjid 2011: 4), character education should be invested and owned by every man who wants to change their attitudes and behavior early in his life, both within the elements of the educational community, teachers, professors, government, and students. All of these elements must have a basic nature as well as strong character as the future generation. Character education is very important because it is the spirit of education in forming human itself.

In the *dhikr Manaqib Sheikh Abdul Qadir Al-Jailani*, instructional character education is a process of internalization and civilizing *sufistik* values sourced from *ahlussunnah waljamaah*. *Sufistik* values that are internalized and cultivated are based on the teachings of Islam, especially about the teachings of Sufism about Shaykh Abdul Qadir Jilani which is in line with the teaching of *ahlussunnah waljamaah*. According to Suhaimie (Sari and Nunung, Tt; 2), *dhikr*, including *Manaqib dhikr*, is an act of remembering, calling, understanding, and maintaining in the form of verbal utterances, the movement of the heart as well as the body which means praise, gratitude and praying in ways taught by Allah and His Messenger, to obtain inner peace, or closer (taqarrub) to Him, and in order to gain salvation in life and spared the torment of Allah in this world and hereafter.

The understanding of this instructional character education has something in common with the notion of other instructional character education. One of them is the one proposed by Eni et al. (2012: 5), which they explains that instructional character education can be understood as a process of acculturation and empowerment of noble values within environmental education

units (schools), family, and community. These noble values derived from the theories of education, educational psychology, socio-cultural values, and religious doctrine, Pancasila, the 1945 Constitution and Law No. 20 of 2003 on National Education System, as well as best experiences and actual practice in the daily lives activities.

In realizing the internalization process and familiarization in shaping the character of the pilgrims, K. Muzakki, as the high priest of *Manaqib dhikr,* has very important role in these efforts. The Learning activities of character education is heavily influenced by K. Muzakki, who is considered to be *sufi*, knowledgeable, having a good morals, charismatic, generous, as well as steadfastness which many of his prayers are fulfilled. This kind of factor that makes *dhikr Manaqib* has increasingly enthusiastic pilgrims to participate in it and every year more and more pilgrims had been recorded joining the event. This learning activity is done repeatedly every night at early morning, evening Friday and especially Friday night *legi*.

In addition, K. Muzakki, in front of his pilgrims, shows the figure of *Pancasilais* and patriotic. K. Muzakki always look forward for his pilgrims to always keep the Homeland and implement all the values contained in Pancasila, even in the learning process within *dhikr Manaqib*, K. Muzakki lead his pilgrims himself to sing the national anthem, *Indonesia Raya*. Out of the profile and the attitude shown by the K. Muzakki, the pilgrims are always trying to change themselves to have the good behavior as exemplified and conducted by K. Muzakki. From these repeated efforts, the pilgrims will be used to follow these activities and get used to doing the deed character.

Thus, the instructional character education in the *dhikr Manaqib* does not only teach the teachings of Islam, especially Sufism of Shaykh Abdul Qadir Jilani, but also habituation through a model shown by K. Muzakki. Nur Zaini (2011: 5) explains that the cultivation of character education cannot be done by only transferring the knowledge or practicing a particular skill. Concealing characters needs a process, a model figure, and habituation or familiarization within the environment of the learners, both school environment, family, community, as well as mass media exposure.

The Learning Objectives of Instructional Character Education in the Context of Irfani-Akhlaqi Tasawuf

The Objective of character education is concealing values within the learners themselves and reforming more respectful coexistence of individual liberation (Asmani, 2011: 42-43). Meanwhile, the goal of character education in the perspective of Islamic education in Indonesia is to make someone accustomed to doing good deeds, so that the interaction with God and others will always be well-maintained and in such harmony. The essence itself is, of course, to obtain goodness, in which someone needs to compare it with the bad or distinguish between the two. Then, drawing a conclusion as well as choosing the good itself and leaving the bad one. Having a good character, we will be respected by others. Conversely, a person will be considered to be not exist, even though he/she is still alive, when his/her morals or character is damaged (Aman, 2008: 25).

As the learning objective of character education in the *Manaqib dzkir Sheikh Abdul Qadir Al-Gilani* is to establish the character of the pilgrims to be *Pancasilais* on the basis of *sufistik* values, so that they can apply it within their religious life, community, and the nation with the hope for getting intercession from Rasulullah, as well as blessing from Allah SWT. When they reach this particular state, they will be considered to reach a high level of *sufistik*, so that they will always get the blessing of Sheikh Abdul Qadir Al Jilani, the intercession of the Holy Prophet, as well as blessing and permission from Allah SWT. With this condition, they will be able to get positive impact within themselves, parents, teachers, family, community,

nation, and religion, so that all kind of bad things (*kemudharatan*) such as terrorism, radicalism, corruption, and so on, can be avoided. Thus, people who are always close and remembers Allah SWT tthrough *dhikr*, *solawat* etc., will be able to fill the emptiness within their heart and soul. Because of this reason, they will be calm and enjoy in doing everything, and this particular noble values can lead the humanity to be back to the values of Sufi which is the essence of human nature (Sholihin and M. Anwar, 2004: 16).

Mahjuddin (2001: 66-67) argues that people always do *dhikr*, especially when they do it in congregation, will make them spread from any kind of inner disease. People with this kind of disease, will have such tendency to neglect doing good things, seemed to be hesitant and always driven to commit a crime, such as doing terror or being racial, radical, fanatical intolerance and exclusiveness. This kind of people is originated from having inner disease.

Hence, the learning goals of instructional character education in the *dzikr Manaqib* essentially correspond to the learning objectives of character education in Indonesia. Endah Sulistyowati (Mukti, 2014: 62) describes that culture and national character education aims to prepare the students to become better citizens, those who have the ability, willingness as well as those who are applying the values of Pancasila continuously.

The Values of Instructional Character Education in the Context of Irfani-Akhlaqi Tasawuf

The values in the context of *Irfani-akhlaqi tasawuf* have a relationship with something that is considered to have sacred and great power. Because it includes the value of spirituality, located in the heart (not the physical sense), *batiniyah* regulates psychic. The heart is the essence of *Sufistik* spiritual, inspiration, creativity and compassion. 'Eyes and ears of the heart' are able to feel deeper inner realities hidden behind a complex material world. That is what is called as *sufistik* knowledge. *Sufistik* knowledge is the light of God within the heart, like a light that helps us to see (Robert Frager 2002: 70).

As we know, the nature of people who have a high level of *sufistik* such as those who are able to interpret every activity of life as a fully operational human being (*hanif*) and have patterns of thought that only rely on Allah (Agustian, 2001: 57). This attitude is a practice that comes from monotheism value. Value of monotheism is the value on the basis of other values. Imam Ghazali argued that monotheism is divided into three, and within those three, there are values that must be believed and implemented by his servants, namely: first, the value of *rububiyyah* monotheism. *Rububiyyah* monotheism is a concept which believes some events that can only be done by God, and declare unequivocally that Allah Ta'ala is Rabb, the King and Creator of all beings, and it is God who set up and change their circumstances (Al Jadid Syarh Book of Tawheed, 17). Second, the value of *uluhiyah* monotheism. *Uluhiyah* monotheism is a concept which believes in activities done by human beings, such as being sincere in worshiping God, which includes a wide range of worship such as: trusting, *nadzar*, anxiety, *khosyah*, hoping, etc. Thus, human beings need to apply the value of sincerity and resignation in worshiping God. Third, the value of *asma wa sifat* is monotheism. *Asma wa sifat* monotheism is a concept that believed and establish what has been established by God in the Qur'an and by His Prophet in the *hadith* regarding the names and attributes of Allah without changing the meaning, deny, describe the form/manner, and presupposing. For a more complete discussion can refer to several books including *Aqidah Washithiyah*, *Qowaidul Mutsla*, etc. The attributes of Allah (the one which is suitable for humans) should be the values that are manifested in everyday life.

From the explanation above, it can be said that in the *dzikr Manaqib Sheikh Abdul Qadir Al-Jailani,* it makes use of the monotheism value as a source of other values. When K. Muzakki

is about to start *dzikir Manaqib,* he often said that this worshiping activities is only directed to worship God and need to be focus for just doing that. Everything in the universe belongs to God and everything will return to God eventually. When the pilgrims has loved and united with God, then they will be a servant who is blessed, full of grace, and beneficial to others, so that everything they do will be facilitated and granted by God. This message is often delivered K. Muzakki in *dzikir Manaqib* and when the guests having hospitality with K. Muzakki in person.

From the values of monotheism, then other values will be spread out, especially the values of instructional character education within *dzikir Manaqib*. Those values include the value of zuhud/simplicity, humanity, wisdom and deliberation, unity (*ukhuwah Islamiyah*) and justice. In the *dzikir Manaqib*, all of the people are united and they have one purpose, which is obtaining mercy and blessings from God. The pilgrims come from various tribe, religion, and race. They are all treated equally and fairly. They attend the event to get closer to Allah and the Prophet Muhammad, understanding the teachings of Islam on the basis of NU or *Ahlussunnah wal Jamaah*, especially the teachings of Sheikh Abdul Qadir Al-Gilani, always keeping the Homeland and sticking to Pancasila. They do *dhikr*, *solawat* and pray together for the benefit of individuals, communities, nations and religions. The pilgrims are also taught to be sympathetic and empathetic by treasuring their wealth and prayers to the people who exist in this world, especially in Indonesia.

Former Minister of Labor and Chairman of PKB, Drs. H. Muhaimin Iskandar, M.Si (Chotib, 2015: 419) had his view of the events of the *dzikir Manaqib*. He said:

> "... frankly since I joined the ark of *dzikir Manaqib*, I found at least two facts; first, this dzikir is very effective in resolving social problems and nationality, and the second I fully realized how I never had any power without being backed up by the intercession of the *Auliya*. As a result, I am very confident and testified that if the whole nation in this beloved country being *istiqomah* in practicing *dzikir Manaqib* as developed by Kiai Muzakki, then the entire multidimensional crisis that befell the nation will be passed soon. I suppose that this phenomenon is widely publicized so there will be more national leaders joined this event to feel the warm touch of its simplicity. "

These values that are applied and developed have in common with learning values of instructional character education in schools. Those values are classified into patience, piety, independence, sincerity, simplicity, freedom and justice (Anam, 2013: 265-268). In addition, these values are also consistent with the values of Pancasila contained in the five precepts, namely; divinity, humanity, unity, wisdom and consultative, as well as justice. These values are the source of values of the peoples of Indonesia. A society which is held onto the values of Pancasila will be referred as a *Pancasilais* society. Out of these five values, they are itemized in a few grades. The Ministry of National Education (2011: 4) specifies five values of Pancasila into 18 grades of character education, namely: (1) religious, (2) honest, (3) tolerance, (4) discipline, (5) hard work, (6) creative, (7) independent, (8) democratic, (9) curiosity, (10) the national spirit, (11) love of the homeland (patriotic), (12) respecting achievements, (13) friendly / communicative, (14) loving peace , (15) likes to read, (16) caring about the environment, (17) caring about social, and (18) responsibility.

The Implementation of Instructional Character Education in the Context of Irfani-Akhlaqi Tasawuf

As efforts to implement a national commitment in teaching within instructional character education to shape the character of Pancasilais, it has collectively been declared at the National Workshop of Education Culture and National Character as National Concord

Development Education Culture and National Character, which was read at the end of the Workshop on January 14th, 2010, as follows:

a. Culture and national character education is an integral part and parcel of national education as a whole.
b. Education culture and national character must be developed comprehensively as a process of acculturation. Therefore, education and culture needs to be contained institutionally intact.
c. Culture and national character education is a shared responsibility between government, communities, schools and parents. Therefore, the implementation of cultural and national character must involve those four elements.
d. In an effort to revitalize the nation's educational and cultural character ofh the national movement is needed in order to inspire the spirit of togetherness in the implementation in the field.

Out of the four basic elements implementable above, essentially it has been applied within *dzikir Manaqib Sheikh Abdul Qadir Al-Jailani*. Implicitly, the process of internalization and civilizing values are carried out massively and integratively. While explicitly, the process is going well. The learning implementation of character education in the *dzikir Manaqib Shaykh Abdul Qadir Jilani*, the priest of *Manaqib* function as an active teacher / educator and the pilgrims of *dhikr Manaqib* as passive learners. The priest of *Manaqib* serves to convey knowledge, lead readings in the *dzikir*, *solawat* and *prayer*, instilling values, and shaping attitudes of the *dzikir Manaqib* pilgrims. Meanwhile, the pilgrims of *dzikir Manaqib* duty is to listen carefully, follow the directions and guidance, and do what they want and done by priests of *Manaqib*.

In the process of interaction, there are three stages of learning implementation of character education. They are: first, preliminary activities. This began with greetings, introducing all the guests including the speaker, conditioning the pilgrims to focus on events with *istighfar*, reading *dua kalimat syahadat* and solidified intention to follow the activities of *dzikir Manaqib*. Second, the core activities are the activity that is mostly done is by doing *tawassul*, *dzikir*, *solawat*, conveying knowledge about the teaching of faith, morals, jurisprudence, sufism, or the latest information, listen to religious lectures, and doing the *Sunnah Hajat* prayers together. The material presented is mostly talk about faith, morals, *syari'at* / jurisprudence, Sufism, nationality, and so forth. The teaching learning models that is used is Teacher Active Learning (TAL). The learning method uses lectures, habituation, practice or *riyadhah*, modeling, and so forth. The instructional media used is a microphone and sound system, projectors, and televisions. Third, closing activity is the activities include: prayers, giving motivation and advice, sometimes providing information about the next meeting and giving closing statement.

Besides those stages, the implementation of instructional character education also have the stages in the implementation of the aspects of achievement that must be passed, namely; the *Syari'at*, *tarekat*, *hakikat*, and *ma'rifat*. If the pilgrims of *dzikir Manaqib* have sincere intentions, determination, hard work and *istiqamah*, then by Allah permission, they will reach the highest levels in instructional character education, namely, *ma'rifat*. During this time, the highest rank held by *Walliyullah* especially *Sulthonul Auliya* 'Shaykh Abdul Qadir Jilani. As in Islamic Sufism, there are several levels of travel in learning *sufistik* known as the *Syari'at*, *tarekat*, *hakikat*, and *ma'rifat*.

First, the *syari'at* is the world of Sufism *syari'at* is an absolute requirement for *salik* (the one who take spiritual path) towards Allah. Without the *syari'at*, everything he/she has done will be nullified. *Syari'at* is not just about prayer, alms, fasting and pilgrimage alone. But more than that, *syari'at* is the rule of life that leads man towards the true reality. *Syari'at* is the starting

point of departure in the human spiritual journey. So for those who want to pursue the Sufi path, inevitably it must strengthen his *syari'at* first. Second, *tarekat* is the term refers to methods of cleansing the soul whose foundations drawn from the laws of *syariat*. According to Schimmel (1975: 98), the *tarekat* is a special path for *salik* (the one who take spiritual path) to reach the perfection of monotheism, such as *ma'rifatullah*. The essence of monotheism is sincere. Demonstrating sincere is not easy, it is necessary to exercise or use some kind of methods to establish sincere in his every action (*mukhlis*), so the sincere itself will becomes a part of him (*mukhlas*). This kind of method is called as *tarekat*.

Third, the *hakikat* is terminologically been defined by Ansari (1990: 74) that *hakikat* is the person's ability to feel and see the presence of God in the *syari'at*, so *hakikat* is the most important aspect in any charity, core, and the secret of the *syari'at* which is the goal of *salik* journey. Meanwhile, Mulyadhi Kartanegara (2006: 6) explains that the *hakikat* is a viewpoint where many Sufis call themselves '*ahl-haqiqah*' in the sense as a reflection of their obsession with "essential truth" (the truth which is essential). The example of the Sufis in this case is Al-Hallaj (d. 922), which revealed the phrase "ana al-Haqq" (I am God). Fourth, the *ma'rifat* is according to the Sufis, *ma'rifat* is part of a triumvirate along with *makhafah* (anxious to God) and *mahabbah* (loving God). All of these three characteristics is the characters of those who take Sufi path (*thariqat*). The *ma'rifat* being talked about here is the true knowledge. The point is, *ma'rifat* is strongly associated with the disclosure of the inner eye, which allows seeing God or seeing visions of God. Disclosure inner eye is closely related to inner purity itself, while the inner purity prime, besides prophets, is something that must be cultivated with great effort over a long period (Compiler Team, 2008: 798), either through meditation, *tazkiyatun nafs* as well as other practices associated with mystical quest.

CONCLUSION

After analyzing the collected data, it can be concluded that: (1) instructional character education is a process of internalization and familiarization of *sufistik* values sourced from *ahlussunnah waljamaah*; (2) the instruction goal of character education is to shape the character of *Dzikir Manaqib* followers based on *Pancasila* within the basis of sufistik values, so that they can apply it in religious life, community, and the nation with the hope of getting the blessings, *syafaat* from prophet Muhammad, as well as *ridho* from Allah SWT.; (3) the instruction values of character education includes the value of divinity, *zuhud*/simplicity, humanity, wisdom and deliberation, unity (ukhuwah Islamiyah) and justice; and (4) the instruction implementation of character education is done within three stages, namely: *takhalli, tahalli* and *tajalli*.

REFERENCES

Aman, S. 2008. *8 Pesan Lukman Al-Hakim.* Jakarta: Almawardi Prima.

Ansari, M.A.H. 1990. *Sufism and Shari'ah, A study of syakh Ahmad Sirhindi's Effort to reform Sufism*, Malaysia: The Islamic Foundation.

Asmani, J.M. 2011. *Buku Panduan Internalisasi Pendidikan Karakter di Sekolah,* Jogjakarta: Diva Press.

Bogdan dan Biklen. 2003. *Qualitative Research For Education: An Introduction Theory and Methods.* London: Allyn & Bacon, Incorporated.

Chotib, M. 2015. *Wisata Religi di Kabupaten Jember*. Jurnal Fenomena Pusat Penelitian dan Penerbitan Lembaga Penelitian dan Pengabdian Kepada Masyarakan (LP2M) IAIN Jember, Vol. 14, Nomor 2 Oktober 2015.

Creswell, J.W. 2012. *Qualitative Inquiry and Research Design:* Choosing Among Five Tradition. London: SAGE Publications.

Eni dkk. 2012. *Pendidikan Karakter: Menjadi Berkarakter Muslim-Muslimah Indonesia*, Surabaya: Kopertais IV Press, 2012.

Kartanegara, M. 2006. *Menyelami Lubuk Tasawuf*. Jakarta: Penerbit Erlangga.

Madjid, A. 2011. *Pendidikan Karakter Perspektif Islam,* Bandung: Rosdakarya

Mahjuddin. 2001. *Pendidikan Hati: Kajian Tasawu Amali*. Jakarta: Kalam Mulia.

Menteri Pendidikan dan Kebudayaan RI. 2013. *Peraturan Menteri Pendidikan dan Kebudayaan RI No. 65 Tahun 2013 tentang Standar Proses Pendidikan Dasar dan Menengah*.

Miles & Huberman. 1992. *Analisa Data Kualitatif*. Penerjemah: Rohidi, R. T. Jakarta: UI-Press.

Moeloeng, L. 2013. *Metode Penelitian Kualitatif.* Rosdakarya: Bandung.

Sari, J.N. Tanpa Tahun. *Pengaruh Dzikir Terhadap Penurunan Tingkat Kecemasan Pasien Pre Operatif Kanker Serviks*, Fakultas Keperawatan Universitas Sumatera Utara.

Schimmel, A. 1975. *Mystical Dimensions Of Islam,* USA: The University of North Carolina Press.

Sholihin, M. dan Rosyid, M.A. 2004. *Akhlak Tasawuf Manusia, Etika, dan Makna Hidup,* Bandung: Nuansa

Tim Penyusun. 2008. *Ensiklopedi Tasawuf jilid II*. Jakarta: UIN Syarif Hidayatullah.

Tim Redaksi. 2007. *Dzikir Pencerah Hati Umat*. Majalah Al-Qodiri, No. 006, November 2007.

Yin, R.K. 2008. *Case Study Research: Design and Methods,* Penerjemah M. Djauzi Mudzakir, *Studi Kasus: Desain dan Metode*. Jakarta: RajaGrafindo.

Zaini, N. 2011. *Pendidikan Karakter dalam Perspektif Islam*, Makalah disajikan dalam seminar kelas, pada mata kuliah *Trend and Issue Contemporary of Islamic Studies*, yang diampu oleh Prof. Dr. Toha Hamim, Program Pascasarjana (S-3) IAIN Sunan Ampel Surabaya, tanggal 7 Nopember 2011.

Zainuddin, M. 2012. *Karomah Syeikh Abdul Qodir Al-Jailani*. Yogyakarta: LKiS.

Designing a Curriculum and Lexically Based Bilingual (Arabic-English) Teaching Materials for Basic Islamic Studies

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Abstract: This study, using an action research design, aims at designing a curriculum and developing lexically based bilingual (Arabic-English) teaching materials for three Islamic senior high schools in Malang. The newly developed materials were brought into experimentation: 25 research subjects in the Study Program of Arabic Language Teaching (15 undergraduate students from Universitas Negeri Malang and 10 graduate students from UIN Malang) joined a training of trainers (TOT) using the new materials. According to these teacher-students, the results of TOT are satisfactory and encouraging. They enjoyed teaching the new materials; for they are simple and easy to teach, well-organized under religious themes of Islam, and interesting to both teachers and learners. As for the feedback, they gave three suggestions: (1) the materials should be developed for all proficiency levels; (2) references to Qur'anic dictionaries and books on *Tafseer* (Qur'anic Interpretation) should be added to materials for advanced students; and (3) simple language games and songs should be added to all materials for enrichment and refreshing purposes.

Keywords: curriculum design, lexically based bilingual (Arabic-English) teaching materials, basic Islamic studies

One of the significant influences of the globalization is the emergence of fierce competition among nations in the world. This condition has pushed the country to face two big challenges, both regionally and internationally. AFTA which commenced in 2015 and the global free trade in 2020 have respectively become major issues in the Ministry of Research, Technology, and Higher Education's strategic plan 2025, which states that education is geared to yield smart and competitive Indonesian generations.

This strategic plan is subdivided into four short-term plans, each with a specific goal- the 2005-2009 plan: improving capacity and adjusting to modernization; the 2010-2014 plan: providing better services; the 2015-2019 plan: gaining regional competitiveness; and the 2020-2024 plan: gaining international competitiveness. Universities as crucial parts of the Ministry of Research, Technology, and Higher Education's and as executors of education should be the ones which are most concerned with this plan. This means that the university's strategic plan should be made in accord with the ministry's policy in order to make their graduates ready to face the above mentioned challenges.

The SWOT analysis of the Faculty of Letters, State University of Malang reveals that two study programs, i.e., English Language Teaching (ELT) Program and Arabic Language Teaching (ALT) program, have successfully obtained the grade "A" from National Accreditation. These two study programs should have the opportunity to implement Asian Universities Network Quality Assurance (Suharmanto and NurulMurtadho 2013). Therefore, research and scientific publication in these two study programs should be conducted to meet quality assurance in research.

Studies pinpoint to the woeful fact that Arabic language teaching in Indonesia of all levels—from *Madrasah Ibtidaiyah* or Islamic Elementary School (Khasairi et. al., 2002)

through *Madrasah Tsanawiyah* or Islamic Junior Secondary School (Khasairi & Kholisin 2003) up through *Madrasah Aliyah* or Islamic Senior Secondary School (Maslichah et. al., 2002)—has been plighted by a strain of problems that urgently demand solution. The above predicament instigated a study entitled *'The Effectiveness of Vocabulary-Based Arabic Language Teaching for Madrasah Ibtidauyah'* by Murtadho & Irhamni (2003). The study, sponsored by Development for Undergraduate Education (DUE-Like) Batch III project, involved fourth grade students of Madrasah Ibtidaiyah in their first semester.

In teaching English as a foreign language, teachers face several problems: lack of motivation among students, inadequate time allotment, inadequate instructional resources and materials, and oversized classes of students. To overcome these problems is actually the responsibility of the educational system. However, the teachers also have to use their creativity to be aware of the limitations and constraints, and collectively make an effort to address and find ways to deal with the frustration these problems bring about (https://neeyhapuzee.wordpress.com/2011/08/08/problems-in-teaching-english-as-foreign-language-in-indonesia/).

Three Islamic private schools (i.e. SMA Sabilillah Blimbing Malang, SMA Darul Qur'an Singosari which is affiliated to *Pesantren* (Islamic Boarding Education), and Madrasah Aliyah Maarif Singosari under the auspicious Ministry of Religious Affairs) are willing to make their students more about Islamic teachings through a language curriculum. Therefore, this research aims at designing a curriculum and developing lexically based bilingual (Arabic-English) instructional materials for basic Islamic studies. The expected outcomes are: (1) a language curriculum, (2) teaching materials in the form of flashcards depicting Arabic-and-English vocabularies for basic Islamic studies, and (3) a guide book for teaching the newly developed materials.

THEORETICAL ASSUMPTIONS AND PRACTICAL CONSIDERATIONS

Successful mastery of a foreign language through classical instruction, according to Sadtono (1983:1), must rely on time-honored and ironclad principles as follows: (1) extensive in-class instruction, (2) high frequency of drills and real language usage (3) relatively small-sized class of 10-15 students, and (4) teachers with excellent language mastery and teaching competence. The teaching of Arabic at all levels of schooling in Indonesia is confronted by sheer obstacles that directly contradict the above principles.

The common problems associated with the teaching of Arabic in Indonesia are: (1) very minimum teaching-learning sessions with the exception of language department classes, (2) low frequency of language drill and real usage, (3) oversized classes of 40 students, and (4) teachers with mediocre language mastery and inadequate teaching competence (Khasairiet. Al., 2002; Khasairi & Kholisin 2003, Maslichah et. al., 2002). This predicament instigated a study entitled 'The Effectiveness of Vocabulary-Based Arabic Language Teaching for Madrasah Ibtidauyah' by Murtadho & Irhamni (2003). The study was funded by Development for Undergraduate Education (DUE-Like) Batch III project.

The lexical approach to second language teaching, according to Lewis (Moudraia 2001), has received interest in recent years as an alternative to grammar-based approaches. The lexical approach concentrates on developing learners' proficiency with lexis, or words and word combinations. It is based on the idea that an important part of language acquisition is the ability to comprehend and produce lexical phrases as unanalyzed wholes, or "chunks" and that these chunks become the raw data by which learners perceived patterns of language traditionally thought of as grammar.

Very basically, a lexical approach to teaching means the primary focus is on helping students acquire vocabulary. This movement away from a grammar-based syllabus largely began in 1993 with the publication of "the Lexical Approach" by Michael Lewis. It was called an approach to differentiate it from a method. What it focuses on are structures made up of words, meaning that the actual paradigm shift was away from individual words to clusters of words, or lexical chunks as they are commonly referred to. This new idea about the structural nature of the language does not exclude grammatical structures but instead recognizes that the language has far more structures than those that occur in the grammatical syllabus (Lackman:2).

The basic principle of the lexical approach, then, is: "Language is grammaticalised lexis, not lexicalized grammar" (Lewis 1993). In other words, lexis is central in creating meaning, and grammar plays a subservient managerial role. If you accept this principle then the logical implication is that we should spend more time helping learners develop their stock of phrases, and less time on grammatical structures.

In recent years, the entire world has witnessed an upsurge of interest in the Arabic language. An important factor of this interest is the increasing number of Muslims and non-Muslims who need to understand Islam. Over the past few decades, this interest has been growing steadily (Mohamed 2003: v). High schools under the Ministry of Religious Affairs in Indonesia have both Arabic and English as compulsory subjects, which are not synchronized. Therefore, designing a curriculum of lexically based bilingual (Arabic-English) instruction for basic Islamic studies is needed to make students aware of using these two languages in dealing with their religion as well as strengthening their character building.

Presented in Table 1 is a sample of lexically based Arabic-and-English teaching materials, designed for one semester by Murtadho (2014). In each session, the teacher introduces five new words and along with their occurrence in lexical chunks.

Table 1. A sample of One-semester Instructional Materials

Session	Lexical chunk of /Seeking refuge in Allah/ استعاذة				
1	أعوذ أعوذ بالله	العياذ و العياذ بالله	رب رب الناس	الفلق رب الفلق	ملك ملك الناس
	I seek refuge I seek refuge in Allah	Seeking refuge I am seeking refuge in Allah	Lord The Lord of men	The daybreak The Lord of daybreak	King The King of men
2	اله اله الناس	الرحمن أعوذ بالرحمن	ك أعوذ بك	عذت عذت بربي	ربكم عذت بربكم
	God The God of men	The Merciful I seek refuge in the Merciful	You I seek refuge in You	I sought refuge I sought refuge in my Lord	Your Lord I sought refuge in your Lord
3	استعذ استعذ بالله	الشيطان من الشيطان	الرجيم الشيطان الرجيم	همزات همزات الشياطين	أعيذها أعيذها بك
	Seek refuge Seek refuge in Allah	Satan/devil from Satan	The expelled / the accursed Satan, the expelled (from the mercy of Allah)	Incitements The incitements of the devils	I seek refuge for her I seek refuge for her in You
4	Review 1, 2, 3 Language games or test				

RESEARCH METHODS

Research Design

The study was conducted using an action research design, which is appropriate with the aims of the research and will guarantee for the success in reaching the intended quality assurance. The design consists of four steps; they are planning, implementing, observing, and reflecting, as depicted in Figure 1.

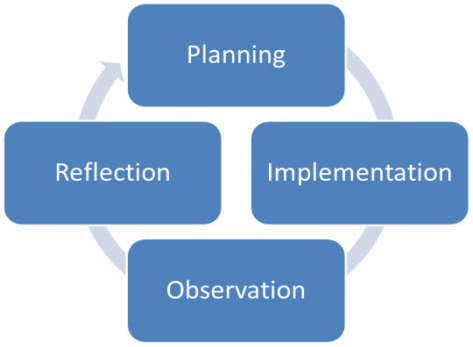

Figure 1: The four steps in doing Action Research

Planning

In order to improve the quality assurance of teaching Arabic and English in three senior high schools in Malang, five activities were conducted: (1) a review on Arabic and English curricula, (2) designing a new curriculum,(3) developing teaching materials in the form of flashcards and a guide book for teaching Arabic-and-English, (4) experimentation, and (5) feedback.

Implementation

The implementation stage was conducted in the Study Program of Arabic Language Teaching at State University of Malang. This was done by implementing the plan, that is by conducting training of trainers on implementing the proposed curriculum and teaching materials of lexically based bilingual (Arabic-English) instruction for basic Islamic studies.

Observation

After the implementation of the supportive training and the improvement of the facilities as required, the overall teaching-learning process using the proposed curriculum and new teaching bilingual materials were carefully noted and recorded. Then the results were analyzed and set out for reflection.

Reflection

The reflection was intended to discuss results obtained from the observation in order to maintain or improve the overall teaching-learning process. If the results are satisfactory and meet the requirements of lexically based bilingual (Arabic-English) instruction for basic Islamic

studies, then this process should be maintained. However, if the results failed to meet the requirements, another plan should be made to improve the process.

Research Subjects

There were 25 research subjects: 15 undergraduate students of the Study Program of Arabic Language Teaching at Universitas Negeri Malang (UM) and 10 graduate students of the same study program at the Islamic State University (UIN) of Maulana Malik Ibrahim Malang. These research subjects joined a teacher training, or training of trainers, on implementing the proposed curriculum and teaching new bilingual materials through in four meetings during the month of November 2016.

RESULTS AND DISCUSSION

Referring to the previous section, this section covers four sub-sections: (a) a review on Arabic and English curricula, (b) designing a new curriculum which comprises objectives, didactic concepts, and assessment, (c) developing teaching materials in form flashcards and a guide book for teaching Arabic-and-English, and (d) experimentation and feedback.

A Review on Arabic and English Curricula

A brief review on Arabic and English Curricula of Senior High Schools under the Directorate General of Primary and Secondary Education of both the Ministry of Education and Culture and the Ministry of Religious Affairs reveals the following:

1. The Arabic curriculum in Indonesia for all levels of education: elementary school (*Madrasah Ibtidaiyah*), secondary school (*Madrasah Tsanawiyah*) and senior high school(*Madrasah Aliyah*) aims at mastering the four language skills for verbal communication.
2. Similarly, the English curriculum in Indonesia for all levels of education: elementary school (*Madrasah Ibtidaiyah*), secondary school (*Madrasah Tsanawiyah*) and senior high school(*Madrasah Aliyah*) also aims at mastering the four language skills for verbal communication.
3. Neither the Arabic nor English curriculum for the Islamic schools mentioned above aims at developing language skills related to basic Islamic studies.

Designing a Curriculum for Lexically Based Bilingual (Arabic-English) Instruction

As suggested by Mohamed (2003), this curriculum is based on *Aqidah* 'faith', *Syari'ah* 'Islamic jurisprudent' and *Akhlak* 'morality' and contains commonly used Islamic vocabularies: a selection of Qur'anic verses, Prophetic sayings, and other original texts citing Qur'anic chunks, phrases, or verses. It adopts the holistic approach in teaching reading, which simply teaches common simple words and phrases before teaching the alphabetical symbols and isolated sounds. From the onset, its primary concern is meaning and understanding rather than form, grammar, or morphology. This curriculum is designed for teenage students, i.e., adolescents and adults. The general objectives are three-fold, stated below with the assumptions following.

1. Arabic is taught via Islamic contents, which will enable students to understand basic principles of Islam in pure Arabic, along with its English translation, by way of practicing the four language skills in both languages.

2. Essential words and basic sentences in Arabic are carefully selected to help students understand basic concepts of Islam and Islamic cultures. Accordingly, as noted above, the teaching materials for the lexically based bilingual (Arabic-English) instruction are comprised of Arabic expressions (words, phrases, and short sentences) along with their English translations.
3. Since the curriculum is designed as such, the students will accomplish three things at the same time: learning Arabic, learning English, and learning basic principles of Islam.

The researchers made up a sample of a one-semester plan of lexically based Arabic-and-English instructional materials (see Table 2) under the theme *Aqidah* 'Faith', comprising new words and lexical chunks to be introduced subsequently in 14 sessions, followed by two review sessions: the first is intended to review the materials presented in sessions 1 through 7, and the second to review the materials presented in sessions 9 through 15.

Table 2. A Sample of Instructional Materials under the Theme *Aqidah* 'Faith'

Session	New Words and Lexical Chunks
1	إِلَهٌ God الــهي my God الــهكَ your God اللهُ إِلَهُ النَّاسِ Allah is God of mankind
2	خَالِقٌ creator خالقي my creator خالقك your creator اللهُ خالق النَّاس Allah is the Creator of mankind
3	ربٌّ Lord ربِّي my Lord الله ربك Allah is your Lord اللهُ ربُّ النَّاسِ Allah is Lord of mankind
4	Review session 1-3
5	رسول Messenger محمد رسول الله Mohammad is a Messenger of Allah إبراهيم و يوسف رسولان من الله Abraham and Joseph are Messengers of Allah إبراهيم و يوسف و محمد رسل من الله Abraham, Joseph and Mohammad are Messengers of Allah
6	نبي Prophet محمد نبي الله Mohammad is a Prophet of Allah إبراهيم و يوسف نبيان من الله Abraham and Joseph are Prophets of Allah إبراهيم و يوسف نبيان من الله Abraham and Joseph are Prophets of Allah إبراهيم و يوسف و محمد أنبياء من الله Abraham, Joseph and Mohammad are Prophets of Allah
7	عبدٌ worshipper محمد عبد الله Mohammad is worshipper of Allah إبراهيم و يوسف عبدان لله Abraham and Joseph are worshippers of Allah إبراهيم و يوسف و محمد عباد الله Abraham, Joseph and Mohammad are worshippers of Allah
8	Review session 5-7
9	كتابٌ Book القرآن كتاب الله Al-Qur'an is a Book of Allah التوراة و الإنجيل كتابان من الله The Torah and the Gospel are Books of Allah التوراة و الإنجيل و القرآن كتب من الله The Torah, the Gospel, and al-Qur'an are Books of Allah
10	دين religion الإسلام دين الله Islam is the religion of Allah الاسلام دين التوحيد Islam is a religion of monotheism ان الدين عند الله الإسلام surely the accepted religion of Allah is Islam

11	رضيتُ I accepted رضيتُ بالله ربا I accepted Allah as my Lord رضيتُ بلإسلام دينا I accepted Islam as my religion رضيتُ بمحمد نبيا I accepted Mohammad as my Prophet
12	Review session 9-11
13	قل say قل هو الله احد Say: Allah is One أعوذ برب الناس I seek refuge in the Lord of people أعوذ برب الفلق I seek refuge in the Lord of the Daybreak
14	خلق created خلق الجن من نار He created jinn from fire خلق الملائكة من نور He created angel from light خلق الانسان من طين He created men from mud
15	بسم الله in the name of Allah بسم الله في كل وقتEvery time, say in the name of Allah بسم الله قبل كل شيءBefore doing everything, say in the name of Allah بسم الله بعد كل شيءAfter doing everything, say in the name of Allah
16	Review session 13-15

Developing Lexically Based Bilingual (Arabic-English) Teaching Materials

1. Designing Flashcards

Designing flashcards is based on a certain theme, covering new words and lexical chunks which have been stated in the curriculum. The researchers have designed flashcards for one semester entitled "Faith", which contains four lessons. Each lesson contains three new core words for three meetings; each meeting presents 1 word as the core and puts it in 9 lexical chunks. Sessions 1 through 3 are spent presenting new words and their use in lexical chunks; and the fourth session is spent for a review, which may contain language games. The designed flashcards under the theme "Faith" may well be described as follows:

Lesson One : Lordرب – CreatorخالقالهGod
Lesson Two : Worshipperعبد – ProphetنبيرسولMessenger
Lesson Three : SayقلكتابReligionدينBook
Lesson Four : Was willing toرضي Understood مهف Read أرق

For a sample of flashcards, see the Appendix.

2. Designing a Guide Book

For a class taught weekly (one session per week), the total number of meetings for one semester is 16 (or 8 meetings for one half of the semester). As a guideline the researchers set up 6 points to help the teachers comprehend the overall teaching-learning activities, so that the one-semester plan of teaching lexically based Arabic-and-English materials can be carried out effectively.

a. In every session, 1 word as a core under a particular theme is introduced, along with 9 other words and their use in 9 lexical chunks.
b. There are four sessions in one month; the first three sessions are spent introducing new materials, and the fourth session is spent for the review.
c. This means that every month, the students learn (9 X 3 =) 27 new words and new lexical chunks; and in one semester or four months they learn (27 X 4 =) 108 new words and lexical chunks.
d. Based on the assumption that bilingual Arabic-English instruction is carried out in 6 consecutive semesters (from grade I to III), it follows that the students will learn and hopefully master a total number of (108 X 6 =) 648 new words and lexical chunks.

e. On the flashcard, every single word is written in red and the lexical chunk is written in black.
f. In every meeting, the students in a class are divided into pairs; and then one set of flashcards containing words and lexical chunks are to be given to each pair of students.

As for the actual teaching practice in the classroom, considering the results of the experimentation, the researchers suggest that the following five steps should be taken:

a. Before the class begins, the teacher should make sure that a set of flashcards (containing 9 new words and lexical chunks) should be ready for use. Recall that each pair of students needs a set of flashcards; and thus the number of sets needed by each class must be prepared in advance.
b. In introducing the new material, the teacher takes the flashcards one by one in order. S/he reads aloud each word and each lexical chunk in the card 3 times, asking the students to repeat after her/him. Then s/he raises questions in Arabic about the meaning of the words and lexical chunks in Indonesian, to make sure that the students are not simply parroting, but saying expressions in Arabic (and English) while understanding the meaning.
c. In the next step, the teacher leads the class to a question-and-answer session about the content of the lesson, to demonstrate to the students how to practice communicating orally in both foreign languages. First, the question-and-answer is carried out in Arabic, as shown in the following example:
d.

من إلهك ؟	الله إلهي
من إلهي ؟	الله إلهك
من إله الناس ؟	الله إله الناس

إذن، الله إلهي، الله إلهك، الله إله الناس، لا إله إلا الله وحده

e. When the students have been fluent enough in practicing speaking the Arabic part, then the teacher moves to the question-and-answer in English, as shown in the following:

Who is your God?	Allah is my God
Who is my God?	Allah is your God
Who is God of mankind?	Allah is God of mankind

So, Allah is my God, Allah is your God, Allah is God of mankind. There is no God but Allah alone.

f. Since the objective of teaching both foreign languages is to help students acquire communicative ability, for the remaining time of the session, the students practice asking questions and giving answers in pairs, using the flashcards given by the teacher to each pair.

From the above five-step classroom instruction, it should be clear that in teaching both Arabic and English, the emphasis is first to be given on the mastery of spoken language, i.e., listening and speaking. This is in line with the fact that mastering a language means having the ability to communicate orally, before eventually moving to learning reading and writing.

Experimentation and Feedback

For the experimentation for the teaching materials, training of trainers (TOT) was conducted in four sessions during November 2016. There were 15 undergraduate students of the Study Program of Arabic Language Teaching at State University of Malang and 10 graduate students of the Islamic State University of Maulana Malik Ibrahim Malang. These research subjects joined a teacher training on implementing the proposed curriculum and newly developed teaching materials.

During the training, all of the participants enjoyed the process and were delighted with the teaching materials. Their comments on the curriculum and teaching materials are considered important, and they are reported as follows:

1. The teaching materials are simple and relevant to the needs of students learning at Islamic high schools; they are interesting to both teachers and students and organized is a systematic way.
2. The use of flashcards (as a medium of instruction) makes the teaching techniques effective and lively; and as a result this makes it easy for the students to learn Arabic and English and also to practice communicating orally in both foreign languages.

In addition, the research subjects who joined the TOT were also inventive and critical; and so, for the feedback, they suggested the following improvements:

1. The curriculum and teaching materials should be designed for all levels: elementary, secondary, and advanced levels.
2. More references to Qur'anic dictionaries and books on Tafseer (Qur'anic Interpretation) should be used for advanced learners.
3. Language games should be added to the review section to enrich the materials and to allow the students to have fun while learning both foreign languages, and also to help the teacher to make an easy match between the review and the materials which s/he has presented in the previous lessons.
4. Islamic simple songs in Arabic and English should be added for the purpose of both providing a refreshing classroom atmosphere and enriching vocabularies.

CONCLUSIONS AND SUGGESTIONS

One of the most important objectives in the 2013 Curriculum is character building. This research entitled "Designing a Curriculum of Lexically Based Bilingual (Arabic-English) Instruction for Basic Islamic Studies" matches the objective of character building nicely since it is designed on the basis of *Aqidah* 'Faith', *Syari'a h* 'Islamic Jurisprudent' and *Akhlak* 'Morality' in Islam. Taking character building at the outset, this action research was seriously and carefully conducted, and the set-up objectives were well accomplished. The success in designing the language curriculum along with developing lexically based bilingual materials (in the form of sets of flashcards) and providing a guidebook for teachers is primarily due to two factors. First, the new materials are academically familiar with the research subjects and psychologically intimate to them. That is, the materials are oriented toward Islamic themes and the research subjects are all Muslims. Secondly, from observing group discussions among the research subjects during the TOP, it is justifiable to conclude that presenting Arabic together with English gives an impression of having religion go hand in hand with modernity.

As the researchers take a close look at the experimentation, all of the research subjects enjoyed the TOT and were delighted with the simplicity of teaching materials as well as the interesting teaching techniques that will probably make it easy for Islamic high school students to communicate verbally with each other in simple Arabic and English. On the basis of the

satisfactory results from the experimentation, we the researchers suggest that, when our proposed curriculum has been implemented and our newly developed teaching materials have been taught for one whole semester, the three Islamic high schools should carry out a comprehensive assessment, to see both the advantages and the drawbacks. This feedback will lead to necessary improvements, to make sure that the curricular objectives (i.e., an effective way of teaching-and-learning Arabic and English while simultaneously underlining basic concepts of Islam) are well accomplished. For future research, we suggest that more experimentation with more developed instructional materials be carried out in other Islamic high schools, to see whether the theoretical and practical value of the new curriculum is truly proven. Finally, our last suggestion is to conduct research on the relationship between lexically based bilingual (Arabic-English) teaching materials and prescriptive grammar of both languages, to ensure that students' development in language skills (listening, speaking, reading, and writing) and their mastery of language components (i.e., vocabulary skill and grammar skill) go hand in hand in a proper way. As such, their communicative ability in Arabic and English, both in speech and writing, will also develop in a gradual and appropriate manner.

REFERENCES

Khasairi, M. & Maslichah. 2002. *'Pelaksanaan Pengajaran Bahasa Arab di Madrasah Ibtidaiyah se Kota dan Kabupaten Malang'.* Laporan Penelitian Proyek DUE-Like Batch III Program Studi Pendidikan Bahasa Arab Fakultas Sastra Universitas Negeri Malang.

Khasairi, Moh. & Kholisin. 2003.*PelaksanaanPengajaranBahasa Arab di Madrasah Tsanawiyah se Kota danKabupaten Malang*. Laporan Penelitian Proyek DUE-Like Batch III Program Studi Pendidikan Bahasa Arab Fakultas Sastra Universitas Negeri Malang.

Kweldju, S. 2002. *Pengajaran Bahasa Inggris Berbasis Leksikon: Sebuah Alternatif yang Tepat untuk Pengajaran Bahasa Inggris di Indonesia*. Pidato pengukuhan guru besar dalam bidang kosa kata pada Fakultas Sastra disampaikan pada Sidang Terbuka Senat Universitas Negeri Malang, 3 Oktober 2002.

Lackman, K. *Lexical Approach Activities: A Revolutionary Way of Teaching.* Ken Lackman & Associates Educational Consultants.

Lexical Approach 1 - What does the lexical approach look like? http://www.teachingenglish. org.uk /article/lexical-approach-1-what-does-lexical-approach-look. downloaded 11 Mei 2014.

Mohamed, M.N. 2003. *Arabic A Bridge to Islamic Culture.* Jeddah: Dar Al-Andalus Al-Khadra'a.

Moudraia, O. 2001 *Lexical Approach to Second Language Teaching*. In ERIC Digest EDO-FL-01-02 June 2001.

Maslichah, N, & Ainin, M. 2002. *Pelaksanaan Pengajaran Bahasa Arab di Madrasah Tsanawiyah se Kota dan Kabupaten Malang*. Laporan Penelitian Proyek DUE-Like Batch III Program Studi Pendidikan Bahasa Arab Fakultas Sastra Universitas Negeri Malang.

Murtadho, N. & Irhamni. 2003. *The Effectiveness of Vocabulary-Based Arabic Language Teaching for Madrasah Ibtidauyah'.* Malang: DUE-like The Study Program of Arabic Language Teaching State University of Malang.

Murtadho, N. 2014. *Designing a Curriculum of Lexically Based Bilingual Arabic-English for Basic Islamic Studies.* A paper presented in "Tenth International Conference: Language Curriculum and Assessment" at Institut Teknologi Bandung, 3-5 June, 2014.

Sadtono, E. 1983. *Metode Belajar Mengajar Bahasa Inggris untuk Kemampuan Komunikatif Lisan.* Makalah disampaikan dalam Seminar Metodologi Pengajaran Bahasa Inggris SMP-SMA tanggal 19-22 Juli 1983 oleh Pusat Pengembangan Kurikulumdan Sarana Pendidikan Badan Penelitian dan Pengembangan Pendidikan dan Kebudayaan Departemen Pendidikan dan Kebudayaan.

Suharmanto & Murtadho, N. 2013. *Improving Leadership Quality Towards World Class University***,** Action Research granted by Higher Education Leadership and Management USAID Jakarta. Malang: State University of Malang.

*Webster'sInternationalDictionary:*http://www.merriam-webster.com/dictionary/ curriculum#

English Literary Texts used in Form Four AND Five English Literature Component 'Revisit'

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Abstract: This study is designed to revisit ESL teachers' perceptions towards the literary texts used in upper forms English literature component in 2007 in comparison to the texts used in 2016. It is also to identify the changes in the selection of the literary texts from the first to the current phase. The data were analysed based on these ESL teachers' perceptions in terms of the topic/content, language, culture and authenticity found in the literary texts. In the attempt of data collection, semi-structured interview was designed with twelve questions which were divided into the four different criteria. A number of twenty five form four and five teachers from different schools within the state of Sarawak were interviewed. The data obtained were compared with the data collected from a parallel study done in 2007. The findings appeared to indicate that there were some significant similarities and differences in these teachers' perceptions towards the two different sets of literary texts used in upper forms in 2007 and 2016 based on the stated criteria.

Keywords : literary texts, revisit, ESL teachers, perceptions

In March 2000, the Literature Component in English made a comeback not only into the Malaysian English Language Education Syllabus but also into the formal examinations in the Malaysian Secondary Schools (Sivapalan & Subramaniam 2008). This move signified the formal acknowledgment of the role of literature in English language teaching in Malaysia (Curriculum Development Department, Ministry of Education, Malaysia; Govindarajoo & Mukundan, 2013). This return was due to the persistence of low proficiency in the English Language among Malaysian students (Melor et al., 2014). In order to overcome this problem the Ministry of Education had made it compulsory for all students to read literary texts by integrating the Literature Component into the English Language Syllabus. The Literature component was implemented in stages over a period of three consecutive years: in March 2000 it was included into Form 1 and 4 English Language Syllabus, in 2001 into Form 2 and 5, and into Form 3 English Language Syllabus in 2002.

As cited in Ganakumaran et al. (2003), the main aims of the literature component are to enhance students' proficiency in the English language through the study of a set of prescribed literary texts; to promote interest in reading in the English Language; to appreciate aesthetic values and the beauty of the English Language; and to know and understand other cultures and universal values. Consequently, a variety of complete literary works in English, translations, and adaptations or simplified versions of novels are used in order to achieve these aims. However, it has to be stated that this move will only improve the proficiency level of learners if the literary texts used are readable, comprehensible and interesting (Chitravelu et al., 2000).

Problem Statement

When literature was initially incorporated into the school curriculum, local research

enthusiasts began exploring the challenges and perceptions of different parties towards the use of literature in teaching and learning of English. Ghazali et al (2009) study exposed that teachers spent a lot of time discussing the literary elements of the texts in class and the students responded that the teaching strategies used were boring and not interesting. Aziz et al (2010) revealed that teachers do not know the best approach to teach Literature in order for students to gain both language and appreciation of the Literature itself. In terms of texts used, Irene (2015) showed that there was a mismatch between the texts selected and students' language ability. Additionally, literary texts for Malaysian students are not contextual and culturally bound, thus making them difficult for students (Hariharan & Shri, 2016). Hence, this study is meant to revisit the situation in school.

Research Objectives

The objectives of this study are as follows:

1. To revisit ESL teachers' previous perceptions and comparing them with the current ones towards the literary texts used in English Form Four and Five Literature Component based on the criteria of topic/content, language, culture and authenticity.
2. To identify the changes in the selection of the literary texts from the first to the current phase

Research Questions

These are the questions of this study:

1. How do ESL teachers perceive the literary texts used in Form Four and Five Literature Component based on the criteria of topic/content, language, culture and authenticity in comparison to the previous perceptions?
2. What are the changes in the selection of the literary texts used in English Form Four and Five Literature Component from the first to the current phase?

LITERATURE REVIEW

This section will summarize the related researches done to find out about ESL teachers' perception towards literary texts used in ESL classroom based on the criteria of topic/content, language, culture and authenticity.

Topic/content

Lam Ai Ling (2002) study revealed that the topic/content of the literary texts used was interesting and suitable to the needs and abilities of the Form Four students thus able to arouse students' interest in learning. However, Ganakumaran et al. (2003) showed in his research that it is imperative to maintain consistency in the topics/contents that are dealt with in the language component and the literature one. Inappropriate literary texts can place an unbridgeable gap between the student's language ability and what they are expected to read and comprehend.

Language

Ganakumaran et al. (2003) in his study showed that the literary texts are readable to students. This to a large extent involves the match between the language of the text and the proficiency level of the students. Fauziah and Parilah (2005) indicated that some literary texts are written in language that has difficult vocabulary and grammatical structures. They expressed

concern about having text with difficult language when students have not yet even fully acquired the basic rules of English grammar and word formation.

Culture

Jelena and Elena (2014) in their study indicated that literature is probably one of the best ways to understand the culture and traditions of the target language, especially in those cases in which a visit or a stay is virtually impossible. This enables students to understand and appreciate cultures and ideologies different from their own in time and space, and to come to perceive traditions of thought and feeling and artistic form in those cultures (Melor et al., 2014).

Authenticity

In Kilickaya's (2004) study viewed that the used of authentic texts provide many advantages to the teaching of literature. They are: they have a positive effect on learner motivation, they provide authentic cultural information, they provide exposure to real language, they relate more closely to learners ' needs and they support a more creative approach to teaching. Authentic materials are significant since it increases students' motivation for learning (Pritipal, 2003).

METHODOLOGY

This study was carried out in various schools within the state of Sarawak. For data collection, 25 English language teachers who have taught the literature components to Form Four and Five students, were selected purposely as participants of the study.

To obtained the needed data, a semi-structured interview was used. The data obtained from the interview were then compared to the previous data collected from a similar study that was done in 2007 by the same researcher. The data were than descriptively reported in percentage form where pertinent results that show a match or different between the two data were presented and discussed.

FINDINGS AND DISCUSSION

This section presents the findings and discussion of this study based on the criteria of topic/content, language, culture and authenticity.

Topic/content

Table 1: The responses for the criteria of topic/content.

Years	2007	2016
Items	Agree (%)	
Suitability	96	89
Familiarity	52	45
Settings	100	100

Table 1 shows the results of these teachers' perceptions towards the topic/content of the texts. In 2007, 96% of the respondents agreed that the literary texts were suitable to students' maturity, interests and needs. For the familiarity of the topic/content, 52% agreed that all of the topics/contents were familiar to students. As for the settings, 100% of them agreed that 30% of

local and 70% of foreign settings were presented in this criterion. These findings are in concurrent to Lam Ai Ling (2002) where the topic/content of the literary texts used was interesting and suitable to the needs and abilities of the Form four students.

While in 2016, even though the percentage of agreement was still quite high (89%), the respondents thought that the topic/content of the texts were more suitable to students of high proficiency level in English language and students of urban schools. In terms of familiarity, less than half (45%) agreed that the topic/content was familiar to the students. Most of them perceived that all of the texts were of foreign contexts thus the students were unfamiliar to the texts. Like wise, all (100%) perceived that the texts have foreign settings and there was no Malaysian texts at all. This situations can hinder students' understanding of the texts thus eventually create gap between them and the texts (Ganakumaran et al., 2003).

Language

Table 2 : The responses for the criteria of language

Years	2007	2016
Items	Agree (%)	
Appropriate to higher proficiency students	100	100
Exposure to aesthetic aspect	92	89
Language structure	92	89
Figurative language	100	85

Table 2 reveals the percentage of the respondents' answers to the criterion of language used in the texts. In both studies, all of the teachers suggested that the language structure was more appropriate to higher proficiency students, since they have the aptitude to seize the meaning and relating it with their experiences (Ganakumaran et al., 2003) . As for the exposure to aesthetic aspect and figurative language, both years scored high percentage from the teachers which indicated that these texts did expose students to the aesthetic aspect via the exploitation of figurative language especially in the poems. Meanwhile, for the language structure presented in the texts, the current study showed similarly high percentage of agreement as the previous one that the language structure did not help students of different proficiency levels in sentence construction because most of the texts were using difficult language structures. This is supported by a study done by Fauziah and Parilah (2005) which indicated that some texts are written in difficult vocabulary and grammatical structures.

Culture

Table 3 : The responses for the criteria of culture.

Years	2007	2016
Items	Agree (%)	
Variety of cultures	100	63
Culture attracts interests	100	60
Culture exposure to different perspectives of life	100	67

Table 3 presents the distribution of frequency of the respondents' perceptions for the culture depicted in the texts. While all the teachers were in agreement with the three questions in the previous study, the current one showed a drop in the percentage. The results show the

range from 60% to 67% agreed to the questions. According to these teachers, unlike the previous study where the culture presented was varied between local and foreign, the current texts are all of foreign cultures. Thus, even though the culture did attract the interests and expose to different perspective of life, unfortunately only to the students with the high level of proficiency in the language. The low proficiency ones did not benefit from the culture presented in the texts. According to these teachers, these students did not even care about these foreign cultures.

Authenticity

Table 4 : The responses for the criteria of authenticity

Years	2007	2016
Items	Agree (%)	
Texts authenticity	52	67
Authentic English Language	96	97

Table 4 shows the perceptions of the respondents towards the authenticity of the texts. In the previous study, 52% of the teachers agreed that 86% of the texts were adapted from the original versions which seem to cater the advanced students. Almost all of them agreed the texts used more authentic English Language in the short stories as well as the novels which could motivate the students because they see the need of learning the language outside the classroom (Kilickaya, 2004). In the current study, 67% of the respondents agreed that all of the texts were from the original versions since all of them were of foreign contexts. 97% of them were in agreement that since the texts were of foreign texts, more authentic English Language was present in the poems, short stories, dramas and especially the novel, Captain Nobody, thus making them more difficult to comprehend by most of the students.

The changes in the selection of the literary texts.

Table 5 : The literary texts used in English Form Four Literature Component from the first to the current phase.

Form 4 Literature Component		
2000-2010	2011-2014	2015 onward
P: Si Tenggang's Homecoming [Malaysia] P: The Road Not Taken [UK] P: Sonnet 18 [UK] SS: The Neckless [UK] SS: The Drover's Wife [UK] SS: The Sound Machine [UK] SS: The Lotus Eater [Italy] SS: Looking for a Rain God [Africa]	P: He Had Such Quiet Eyes [Jakarta] P: In The Midst of Hardship [Malaysia] SS: The Fruitcake Special [US] SS: QWERTYUIOP [UK]	P: The Living Photograph [USA] P: Charge of the Light Brigade [UK] SS: Leaving [Tanzania] SS: Tanjung Rhu [Singapore] D: The Right Thing To Do [USA]

Table 6 : The literary texts used in English Form Five Literature Component from the first to the current phase.

Form 5 Literature Component		
2001-2011	2012-2015	2016 onward
P: If [UK] P: Monsoon History [Malaysia] P: There's Been a Death in the Opposite House [USA] N: Jungle of Hope [Malaysia] N: The Pearl [Mexico] N: The Return [Malaysia]	P: Nature [Jamaica] P: Are You Still Playing Your Flute? [Malaysia] N: Catch Us If You Can [UK] N: Step By Wicked Step [UK] N: The Curse [Malaysia]	P: What Happened to Lulu? [UK] P: A Poison Tree [UK] N: Sing To The Dawn [Thailand] N: Captain Nobody [USA] N: Dear Mr. Kilmer [USA]

From Table 5, it is obvious that in the first phase (2000-2010), there were more texts to be analysed in Form Four, with an extra poem and three additional short stories, if compared to the second phase (2011 - 2014) and the current one. However, drama was introduced for the first time in the later phase. In the first two phases, at least one local text was used but non of this text was introduced in the current phase which indicated that all of the texts were of foreign contexts.

From table 6, in the first phase (2001 - 2011), the Form Five texts had an extra poem if compared to the second and the later phases. In the first and second phases, at least two literary texts from Malaysia were analysed at this level. However, similar to the Form Four present situation, the Form Five current texts were all foreign ones.

IMPLICATIONS

Based on what has been presented, here are the implications of this study:

1. ESL teachers who use these texts should give more attention to the language structure used in them.
2. Some interesting strategies and activities need to be done to match the language used in these texts with their students' level of proficiency in the language.
3. Aids to enrich the students' vocabulary knowledge and enable them to explore cultures different from their own as well as general knowledge of the world.
4. The idea of using literary works in English by Malaysian writers should be considered to overcome the problem of culturally prejudice content.
5. The Ministry of Education should introduce contemporary and up-to-date literary texts to be used in the teaching of literature to these students.

CONCLUSION

Since it was also found in the findings that most of the literary texts are meant to cater the needs of advanced and some of the intermediate proficiency levels of students with less attention is given to the low proficiency level of students needs, the future set of literary texts should give equal weightage to this particular group of students needs too.

REFERENCES

Aziz, M.A.&Nasharudin, S.N.S. 2010. *An Investigation on Approaches to Teach Literature in the ESL Classroom: A Case Study of SMK Taman Desa Skudai, Johor Bahru*. Universiti Teknologi Malaysia Institutional Repository.

Chitravelu, N.,Sithamparam, S. & Teh, S.C. 2000. *ELT methodology principles and practice*. Shah Alam: Fajar Bakti.

Fauziah, A. and Parilah, M.S. 2005. *Teachers' choice of teaching methods in form two literature. In Journal Penyelidikan Pendidikan*, Jilid 7,December 2005, pp.74-95. Universiti Kebangsaan Malaysia : Bahagian Perancangan dan Penyelidikan Dasar Pendidikan, Kementerian Pelajaran Malaysia

Ganakumaran, S., Shahizah, I.H. & Koo, Y.L. 2003. The incorporation of the literature component in the Malaysian ESL syllabus for secondary schools: A study of pedagogical implication. In Ganakumaran, S. and Malachi, E.V. (2003). *Teaching of literature in ESL/EFL contexts*. Petaling Jaya: Sasbadi Sdn.Bhd.

Ghazali, S.N., Setia, R., Muthusamy, C. & Jusoff, K. 2009. ESL Students' Attitude towards Texts and Teaching Methods Used in Literature Classes. EnglishLanguage Teaching Journal, Vol. 2, Num. 4, 51 – 56.

Govindarajoo, M.V., & Mukundan, J. 2013. Young adult literature in the Malaysian secondary school. *English Language Teaching*, 6(11), 77.

Hariharan, N.K. & Shri, N.S. 2016. Learnrrs' Perceptions on Their Readiness to Read Novels in teh Context of English as a Second Language. *Journal of Teaching and Education*, Vol. 5. No. 1

Irene, K.V. 2015. The Use of Literature in the Language Classroom: Methods and Aims. *International Journal of Information and Educational Technology*, Vol. 5, No. 1

Jelena, B. & Elena, D. 2014. The Use of Literature and Literary Texts in the EFL Classroom; Between Consensus and Controversy. *An International Journal of Applied Linguistics & English Literatures*. Vol. 3, Num. 2

Kilickaya, F. 2004. *Authentic materials and cultural content in literature*. Retrieved on 10th January 2007 from: http://www.metu.edu.tr/~kilickay/

Ling, L. A. 2003. *Teachers' perception towards literature component in KBSM English Form Four, unpublished Bachelor's thesis*. Kota Samarahan: University Malaysia Sarawak

Melor, M. D., & Ashairi, S. 2014. A Glimpse on the Re-Introduction of English Literature in Malaysian Secondary Schools. *An International Journal of Applied Linguistics & English Literatures*. Vol. 2, Num. 2, pp. 151-16

Pritipal, K. A. 2003. *Teachers' perception on the suitability of the literature reading materials in KBSM English Form Three syllabus, unpublished Bachelor's thesis*. Kota Samarahan: University Malaysia Sarawak

Sivapalan, S., & Subramaniam, G. 2008. The incorporation of literature in the English Language Programme for Engineering Students: learner interest and perception. 3L; Language, Linguistics and Literature, *The Southeast Asian Journal of English Language Studies*., 14, 45-73.

Character Building through Javanese Classic Dance Based On C.G Jung Theory

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Abstract: One way to build student character is dancing. This happens because when dancing or making art, people enter into the world spiritually. He took a distance from their daily activities, so as to reflect on life and improve it. This idea refers to the C.G. Jung's theory about imagination, creativity and individuation. Individuation is individual processes to be a unique person and mature. The impetus for individuation was born from a variety of unconscious power, especially power of imagination and creativity, that necessary to channeled through discipline. Only if a person trained himself with discipline, then creativity can produce artistic or other professional result. Subconscious power such as imagination and creativity firmly rooted in the view C.G. Jung's archetypes and the collective unconscious. This power needs to be supplied so as not to suppress human. Art is a form of creativity is channeled in a disciplined manner. Through the discipline the people produce art such as dance. Through dancing people will learn fortitude, tenacity, integrity, fitness. Dancing seriously can be a means to strengthens the character of students

Keywords: individuation, creativity, dance, imagination

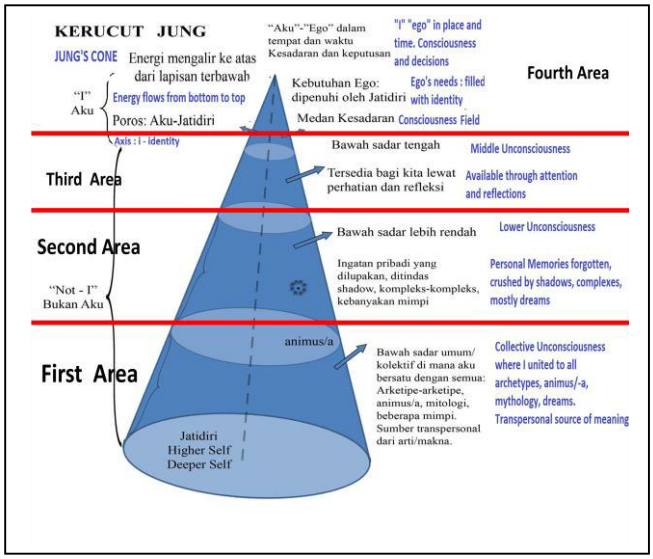
According to C.G. Jung, psyche is a complex system formed of various dynamic powers to construct a harmonious persona. The system was resulted by various life process energy is living power. Psyche is more than sexual forces and other educational products pressures as Freud stated, rather oneself has already had many unconscious forces.

There is some important unconscious- power:

Archetype: An archetype, also known as universal symbol, may be a character, a theme, a symbol or even a setting. Carl Jung, argued that the root of an archetype is in the "collective unconscious" of mankind. The phrase "collective unconscious" refers to experiences shared by a race or culture. This includes love, religion, death, birth, life, struggle, survival etc. These experiences exist in the subconscious of every individual and are recreated in literary works or in other forms of art. Archetypes in Characters: Example The Hero: He or she is a character who predominantly exhibits goodness and struggles against evil in order to restore harmony and justice to society e.g. *Hercules, Khrisna, Pandawa in Wayang* etc.

Animus – Anima: The anima and animus are described by Jung as elements of his theory of the collective unconscious, a domain of the unconscious that transcends the personal psyche. In the unconscious of a man, this archetype finds expression as a feminine inner personality: anima; equivalently, in the unconscious of a woman it is expressed as a masculine inner personality animus.

Mythology can refer to the collected myths of a group of people their collection of stories they tell to explain nature, history, and customs or to the study of such myths. As a collection of explanatory stories, mythology is a vital feature of every culture. Many sources for myths have been proposed, ranging from personification of nature or personification of natural phenomena, to truthful or hyperbolic accounts of histori-cal events to explanations of existing rituals. Ex: The Story of Nyai Roro Kidul.



The layer above collective unconsciousness is "lower" unconsciousness, which contains personal memories, dreams and various complexes. The area above is "middle unconsciousness" which can be consciousness if the person spends time to summon it by reflection, attention and serenity.

Ego: The top area is consciousness where Ego is in charge. Conscious ego/ I encompass conscious perception, such as memories, thoughts and feelings which become the distributor of various emotions that construct the personality.

Free Space Imagination

Imagination is part of unconsciousness that can enter consciousness when one can use imagination; one has the ability to visualize something: which no longer exist, have not existed, never existed. The power of imagination revealed the strongest in artworks, paintings, books, music, dance, but also scientific work, and other professional works. Through imagination, reality can be altered to a symbol, for example:

1. Someone - failed a grade: reality
2. Symbolize - slavery – being fooled by poverty

Imagination is created of reality. If I have time to imagine, there is possibility that I can revalue my experiences. That is my free space. Through that I can see the reality in a new perspective. Now, imagination is my free space.

1. Failed a grade - symbolize: helplessness
2. Imagination: crushed or fight
3. Decision: study diligently though failed : symbol of struggle, release (study symbolize heroism)

Then, he/she (someone) can give new meaning to reality

Creativity

From the term of *creare* from Latin means to create. Creativity: creative force channeled through work or talent, done until producing artwork or professional work. The spirit of

creativity is imaginative force. The more one has time to imagine, and pour one's imagination, the more possibilities to create.

Relations between Imagination, Creativity and Perseverance

Imagination is uncontrolled power like a volcano's magma, wanting to erupt in the form of a creation. Creativity: is a tunnel to shape the imaginative force. In the front of creativity door, there is a long road/rail which used to achieve the destination. The road/rail is discipline. Through discipline, new characters are born. Perseverance or discipline is a way to sharpen imagination and creativity: hence the persevere graduate with quality, or becoming good guitarist, or becoming painter.

Participating In Art as Manifestation of Imaginative Force

By participating in art, human takes distance from daily ritual and entering immaterial world (soul-spiritual). By participating in art, is living atmosphere appear. Where there is life, there is warmth. Where there is life and warmth, productivity is born to produce health, wholeness, harmony, balance. Creative force which pushed by imaginative forces rooting in unconscious space that is beyond human knowledge. Was rooted on creativity of art works with psychological value (conscious), art works with visionary value (unconscious). Psychological artworks: There are artworks from conscious area and within human comprehension. This happens inside a poet who creates their poems, or a singer, that create a song. Visionary artworks: Visionary artworks are art that is not rooted from known and comprehended area, but through one's journey from light and dark nature beyond oneself (Jung, 1981). The characteristic of visionary artwork is that the effect is beyond human comprehension. The effect is beyond human comprehension Contain high humanity values (human legacy). The symbol of unknown presence. Artists are God's tool to continue creation. To give good influences to human.

Human Image C.G. Jung

Human is creature undergoing "individuation process", which is a process to become true individual, who's within happen realization process, manifestation or self-actualization or "*Selbstverwirklichung*". In the process of "becoming self", then "self-identification" becomes the means to see various mysteries by reviewing "everything that has happened". Imagining is a human potential to empower oneself to "become oneself". In "imagination", appear the soul capability with all the hopes, fears, longing, and others possibilities.

Java Dancing as a Creative Process

A form of creativity to construct new character is the process of excercising Java dancing. Because in Java dancing, lies the philosophy to all Java dancers : *Greget* – a Java dancer, has to have strong will, that should be regulated so that it would not become wild. *Sengguh* Java dancing trains courage and confidence. This appear when the Java dancer realize that they are God's grace. *Ora mingkuh* Java dancing also trains endurance, patience, loyalty, responsibility. Loyalty and responsibility will hold them from running away when faced with trials.

For example steps of Kelono Topeng dance:

TARI KELONO TOPENG	The Meaning of Movement
A. MAJENG GAWANG/ OPENING	Step by Step of movement
1. Sembahan - Nikelwarti – Jengkeng – Memakai Topeng	I am thrown into the world, that's how existentialist interprets human existence. One thrown, in a tribe, culture, time and event, and so one have to wear local mask.
2. Berdiri – enjer – Ulap-Ulap Kanan – Solah Topeng – Mantuk	The red mask I wear is the symbol of event that got me mad, confused, wild, and I did my searching
3. Seblak Kanan – Enjer Kiri – Solah Topeng – Mantuk	By looking but retreating Is the life I am scared to face. Life that got me messed up.
4. Lumaksono – Jalan 4 Langkah – Besut – hadap Kanan- Besut	I step in reality, I stopped and retreated to consider everything
5. Seblak kiri – enjer kanan – solah topeng	Every time I assure myself between yes and no
6. Seblak kanan – enjer kiri – solah topeng	Every time I runaway, consider and reassuring myself

EXPERIMENT

Researcher has participated, practicing program of dancing during two years, for one a week. The effects of dance were developing various characters such as discipline, honest, resilience in going good tasks and increasing the spirit of serving or self-denials.

DISCUSSION

The reality is there is no exactly instrument to measure development of human characters, after having dancing practice. Supposed to in the future need to be creating and develop a instrument for it. However observing of structure movement in the Javanese dance can be hypotheses that developing someone's character will be progressing, if those people consistently practice in Javanese dance.

LITERATUR

Jung C.G. 2001, Die Beziehung zwischen dem Ich und dem Unbewussten, Deutsche Taschenbuch Verlag GmbH & Co. Muenchen,

Jung C.G. 1995. Grundwerk C.G. Jung, Band 5, Traumsymbole des Individuationsprozesses, Solothurn und Düsseldorf

Aissen-Crewett, M. 2000. Praxis der tänzerischen Bewegung, Eine Anleitung für die Arbeit mit Kindern bis zu Senioren, Dortmund

Wibowo, F. 2002. Tari Klasik Gaya Yogyakarta, Yogjakarta

Berbagai Workshop tari Topeng Malangan hari Minggu, Agustus 2016. di Pakisaji Malang.

Relationship between Achievement Motivation and Learning Outcomes on Land Law Course vy Student of PPKN Nusa Cendana University

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Abstract: Motivation is a power or a complex situation and readiness of a person to move toward a particular purpose. The purpose of this research is to analyze the correlation between achievement motivation and cognitive learning outcomes on Land Law Course. The subject in this research is 25 students of PPKn Department, Faculty of Education, Nusa Cendana University. The design of this research is Pearson product-moment correlation coefficient, which used SPPS version 20.0 to see if there are any correlations between achievement motivation and learning outcomes. Data from table correlation shows that Pearson correlation value is 0.814 > 0.5 with significance level .000, therefore it can be concluded that there is a strong correlation with a positive direction between achievement motivation variable and learning outcomes. In conclusion, achievement motivation has a significant correlation with learning outcomes of Land Law Course.

Keywords: Learning outcomes, achievement motivation, Land Law Course, PPKn Department

The success of students in achieving high learning outcomes is determined by achievement motivation. According to Dale H. Schunck, motivation and learning can influence each other. When students learn and they feel more skilful, they will be more motivated to continue their study. Achievement motivation refers to someone's effort to be more competent in a particular activity. Furthermore, John Atkinson's theory of achievement motivation cited by Schunk describes that someone's attitude depends on his expectation to gain something. The action gives hope to success and also fears to fail. The best way to develop achievement behavior is by combining the strong hope to success and the less fear of failing. This way suggests that students who have high achievement motivation will choose the most difficult tasks, in which the students believe that they can solve the tasks and will gain the feeling of achievement. In contrast, students who have low achievement motivation tend to choose the simple and easy tasks and have little effort to success (Schunk, 2012).

Based on curriculum structure of PPKn Department, Faculty of Education, Nusa Cendana University, there is a Land Law course. This course has a competency in which student will be able to demonstrate considerable knowledge of concepts, norms and theories of Land Law, able to investigate land problems and able to find the solution in a fair and humane way.

Christ Kyriacou argues that in relation to empowerment and motivation, there are three central and crucial aspects of students' involvement in learning activities. The first is attentiveness, in which students should pay more attention to learning experiences. The second is receptiveness, in which students should have the willingness to learn and should response the experience. The third is appropriateness, in which learning experience should be appropriate with desired learning outcomes and considers students' initial knowledge and consideration (Kyriacou, 2012).

Therefore, this research is conducted to find if there is any relationship between achievement motivation and learning outcomes particularly on Land Law Course in PPKn Department.

ACHIEVEMENT MOTIVATION

Motivation Concept

Schunk & Hanson (1989) describes motivation as a process of push and maintain a particular purpose by steering someone's behavior. Motivation is power in learning that gives students power and strength to study. Learning with full energy will make students maximise their potency and push them to explore learning resources especially under a supervision of professional teachers. Motivation is not developed by itself but it needs a condition that could attract students. There are several variables that motivate students to learn. In addition, students have social purposes that can be integrated with their academic purposes.

Motivation is power or forces or energy or complex condition and readiness of the individual to move to achieve particular purposes. Slavin (2005) states that motivation is one of the most important aspects of learning. If there is no motivation in learning, there is no learning process. Motivation can affect both learning process and learning outcomes. Effective learning forms motivation. If learning process is effective, interesting, useful, and matching with students' interest, it will increase student involvement in the learning process (Uno, 2011).

The relationship between motivation and purposes happens when someone has a high level of anxiety to fail but able to conduct his task properly and learn from his previous experiences. When someone has a low level of anxiety, he will need more motivation to finish his job. There are two things that motivate students to learn. First, students learn because they want to know and want to increase their knowledge. Second, students learn to obtain a high grade, promoted to the next level, get a certificate and so on (Rohani, 2004).

Dale H. Schunk argues that reward is an important component that could encourage someone to do similar action in the future. Motivation is presented by the increase in number, intensity and duration of actions. Schunk also describes that cognize theory and constructivist theory about motivation states that desire to get rewards motivate an action. Rewards can increase motivation when it is given based on people's achievement and progress in learning. Motivation can decrease when people see rewards as things that control their behavior by the time (Schunk 2012).

Achievement Motivation Concept

The main thing in learning is a research about learning achievement. Achievement motivation refers to the attempts to be competent in activities that need hard work.

Motivation theory explains two of factors that encourage someone to reach the satisfaction and to avoid the dissatisfaction. There is hygiene factor (extrinsic factor) and motivation factor (intrinsic factor). This motivational factor includes everything that can push someone to reach his or her success. The motivational factor can be a job, an achievement, a chance to growing up, progression in a career, and people's recognition known as "hope theory". Hope theory describes that when a person really wants something and has a big hope to get it, the person will be motivated to reach what the person wants. On the other hand, when a person has only a little hope towards it, their motivation to make efforts will be low as well.

Heckhausen (1968) says that achievement motivation is the encouragement to a person to improve and maintains their level of ability as high as possible in every activity in which the superiority standard is used as the comparison. Three superiority standard that can be used are; (1) task, relate to how to finish the assignment well; (2) oneself, relate to the higher achievement level; (3) other people, relate to higher achievement compare to others. Achievement motivation is a strong encouragement to make effort and work to success. People with high achievement

motivation have big hope for success and make an effort to reach his aims without thinking about failure (Hidayat, 2008). Someone's achievement motivation is determined by his tendency to success. People with high achievement motivation have more tendencies to focus on achieving good performance than to avoid failure. They are always positive that they will success and tend to achieve maximal performance. They prefer questions with average difficulty than hard or easy questions. They will feel challenged to do the task properly and when they success they will feel fulfilled and proud of themselves. On the other hand, people with low achievement motivation tend to avoid failure and will avoid the medium level of task because it will get them into anxiety. They will choose the hardest one so they will have a reason for the failure, while the easiest task can avoid them from failure (Sopah, 2000).

Aydin & Coskun (2011) mention the characteristics of people with high and low achievement motivation in table 1.

Tabel 1 The difference of people with high achievement motivation and low achievement motivation (Aydin & Coskun, 2011)

No	High achievement motivation	Low achievement motivation
1	Learn to always learning	Assignment is taken as the learning outcome
2	Make learning purpose with medium level of difficulties	Make the hardest or easiest learning purpose
3	Improve the confidence	Not improve confidence
4	Motivation relate to personal effort (intrinsic factor)	Motivation relate to outside effort (extrinsic factor)
5	Try to solve problems	Almost giving up when trouble comes

Source: Aydin & Coskun, 2011

The characteristics of people with high achievement motivation are confident, responsible, active in community and campus, choose an expert as a partner instead of a sympathy person, can bear social pressure. Heckhausen (1979) gives 6 characteristics of a person with high achievement motivation, those are; (1) has positive mind, optimistic and confident; (2) choose the medium level of task instead of the hardest one or the easiest one; (3) have a future vision; (4) appreciate time; (5) patient, diligent, persistent in doing task;(6) choose the expert as a partner instead of volunteer

Based on the opinion of Degeng (1997), the difference of people with high achievement motivation and low achievement motivation are shown in Table 2.

Table 2 The difference of people with high achievement motivation and low achievement motivation (Degeng, 1997).

No	High achievement motivation	Low achievement motivation
1	Loves the task they choose	Loves the task that is chosen by other people
2	Few tasks	Many tasks
3	Highest effort	Effort based on amount of the task
4	Work hard and doesn't care about other	Care about other
5	Realistic	Idealist
6	Love to be challenged	Avoid challenge
7	Avoid evaluation	Like to be evaluated
8	Achievement for ratification	Achievement for honor
9	Dare to try and take risks	Avoiding risks
10	Outcomes is related to the effort	Outcome is related to fate, ability and difficult task

Source: Degeng, 1997

Learning outcomes

Learning outcomes has a close relation with learning purpose. Learning purpose is a target in learning. Evaluation of learning outcomes is appraisal toward students' level of understanding about learning purposes or competency. Dimyati argues that learning outcomes are capabilities. After studying, people will gain skill, knowledge, attitude and values. There are five types of learning outcomes as students' capabilities; (a) Verbal information is a capability to express knowledge verbally, (b) Intellectual Skill is an ability to adapt with living environment, and ability to present symbols and concepts, (c). Strategy cognitive is an ability to express and direct their cognitive activities including an ability to solve a problem, (d). Motoric skill is an ability to do a series of physical movement and physical coordination, (e). Attitude is an ability to receive or reject object based on their judgment to the object.

In 'The Condition of Learning' book, it states that taxonomy is learning outcomes or competency in studying. Taxonomy consists of; (a) Verbal Information, for example, ability to mention, to identify, and to make a list; (b) Psychomotor skill, for example ability to perform an action properly to obtain particular aim' (c) Attitude, for example faith and choices; (d) Intellectual skill, for example ability to analyze and modify symbols and information; (e) Cognitive strategy, for example, ability metacognitive that is shown in the form of ability to think about thinking process and ability to learn how to learn.

Learning outcomes can be referred to a model created by Benyamin S. Bloom that was revised by Anderson & Krathwohl (2001), which suggest three domains that can be used as a basis to formulate learning purposes that cover cognitive, affective, and psychomotor aspects. Cognitive aspect (learning outcomes) including six abilities that have hierarchy; (a) Knowledge, is on the lowest level of hierarchy in cognitive aspect including ability to identify and to mention information; (b) Understanding, is ability to explain and ability to understand a concept; (c) Analyze, is ability to elaborate a concept, ability to describe the relationship of component in the concept; (d) Synthesis, is ability to combine components to form a concept or new rules; (e) Evaluation, is on the highest level of hierarchy of cognitive aspect that includes ability to evaluate and make decision about current situation; (f) Product, is ability to create a product.

Affective aspect is close to attitude, emotional, and appreciation of values, norms and object of studying. There are five level of hierarchy in affective aspect; (a) Receive, is ability to give attention to an activity or an event; (b) Response, is ability to give response and participate; (c) Evaluate, is ability to receive or reject a particular value or norm; (d) Organize, identify, choose, and decide values or norms that will be used; (e) Give character to values, in form of believing, practicing, and showing consistent attitude toward values and norm.

Psychomotor aspect refers to physical activities with four level of hierarchy; (a) Imitate, ability to perform something that was observed before; (b) Manipulate, ability to modify a skill; (c) Precision, ability to do activity accurately; (d) Articulation, ability to perform activities efficiently and in coordination (Anderson & Krathwohl 2001).

According to Degeng, in general, learning outcomes can be classified into three categories; (1) Effectiveness; can be measured with the level of learning accomplishment. There are four factors to describe effectiveness those are accuracy and level of mistakes, a speed of work, and level of learning, and level of retention from what we learned. (2) Efficiency; can be measured with ratio of effectiveness and total time and/or cost consumed for learning. (3) Appeal; can be measured by observing the tendency of students to continue learning. Appealing of learning is close to appealing of course, in which learning quality influences both. Therefore, measurement of student tendency to continue learning or not can be connected with learning process or with courses itself (Degeng, 2013).

RESEARCH METHOD

Purpose of Research

The aim of this research is to see a correlation between achievement motivation and cognitive learning outcomes on Land Law Course doing by students of PPKn Department, Nusa Cendana University, in Semester IV academic year 2015/2016. The hypothesis in this research is that there is a positive relation between achievement motivation and students' learning outcomes.

Research Subject

Subjects of this research are 25 students of PPKn Department, Nusa Cendana University, in Semester IV academic year 2015/2016.

Research Instrument

1. Instrument of achievement motivation
   To measure students' achievement motivation, this research used 32 questions. Students as a research subject were asked to fill the motivation instrument by choosing one from five answer options that suitable with their condition. Each answer options has scored as follow; very agree with score 5, agree with score 4, do not know with score 3, disagree with score 2, very disagree with score 1. Therefore, the highest score from the questionnaire would be 160 and the lowest score would be 32. Based on the highest and the lowest score, the students will be categorised into two groups. Those are students with high achievement motivation (97-160) and students with low achievement motivation (32-96).
2. Instrument of learning outcomes
   The instrument of learning outcomes in this research is a result of a cognitive test. Written cognitive test consist of 50 questions that are spread in cognitive domain (C1, C2, C3, C4, C5 and C6) from learning theme. Drafting instrument of test result based on basic competency of the course, that is knowledge of the definition of land in Indonesia society. Indicators are created based on this basic competency. Each indicator is formed into several test items and the test items are in the form of objective test. To prove that the every test items is valid, it is important to conduct instrument test. Students as research subject either in test group or experiment group were asked to choose one from four answer options of the objective test. The right answer will be given score 1 and the wrong answer will get score 0.

Research design

To prove the hypothesis, which is achievement motivation relate to learning outcomes, correlation analysis was used to explain the power and direction of a relationship between the two variables. Thus, research design used Pearson product moment correlation coefficient.
With hypothesis:
H_0 : r=0; there is no relation between achievement motivation and learning outcomes.
H_1 : r≠0; there is a relation between achievement motivation and learning outcomes.

RESULT AND DISCUSSION

Based on the hypothesis, a prerequisite test was conducted before correlation test. The result of validity test can be seen in table 3.

Table 3. Validity test

Case Processing Summary			
		N	%
Cases	Valid	25	100.0
	Excluded[a]	0	.0
	Total	25	100.0
a. List wise deletion based on all variables in the procedures			

After that, a test of data reliability was conducted and the result is shown in table 4.

Table 4. Test of data reliability

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.770	.898	2

When every precondition is fulfilled, the next step is correlation test between achievement motivation and learning outcomes on Land Law Course. The result of the test is presented in Table 5.

Table 5. Correlation between achievement motivation and learning outcomes

Correlations

		Motivation	Learning_Outcome
Motivation	Pearson Correlation	1	.814**
	Sig. (2-tailed)		.000
	N	25	25
Learning_ Outcome	Pearson Correlation	.814**	1
	Sig. (2-tailed)	.000	
	N	25	25

**. Correlation is significant at the 0.01 level (2-tailed).

From the Correlation table, can be seen that Pearson correlation is 0.814 > 0.5 with significance .000. Based on the data, the result is suitable with the hypothesis, in which r≠0, thus, it can be said that there is a relation between achievement motivation and learning outcomes on Land Law Course. This result also showed that the relation between achievement motivation and learning outcomes is positive. In conclusion, between variable achievement motivation and variable learning outcomes, there is a strong and significant relation with positive direction.

CONCLUSION

In this research, we can conclude that achievement motivation has a significant correlation with learning outcomes on Land Law Course. Based on this result, students' achievement in gaining high grade is determined by achievement motivation factor. This research also supports Schunk's (2012) argument about motivation and learning is influencing

each other. Students' motivation could affect what and how they learn. Once students learn and feel that they become more skillful, they will be motivated to continue learning. Therefore, achievement motivation should be emphasized in a learning process.

REFERENCES

Anderson, O.W., & Krathwohl, D.R., 2001. Taxonomy for Learning, Teaching and Assesing: A Revision of Bloom's Taxonomy of Educational Objectives. A Bridged Edition. New York: Addison

Atkinson, J.V.V., 1974. *Strength of motivation and efficiency of performance*. In J. V.V., Atkinson & J. O. Raynor (Eds.), Motivation and achievement. Washington, D.C.: V. H. Winston.

Aydin, F. & Coskun, M. 2011. Secondary School Students' "Achievement Motivation" toward Geography Lessons. Journal of scholars research library. Karabik: Karabik University.

Degeng, I. N. S., 1997. *Strategi Pembelajaran, Mengorganisasi Isi Dengan Model Elaborasi*, Malang: Penerbit IKIP Malang dengan Biro Penerbitan Ikatan Profesi Teknologi Pendidikan Indonesia.

Degeng, I.N.S. 2013. *Ilmu Pembelajaran (Klasifikasi Variabel untuk Pengembangan Teori dan Penelitian).* Bandung. Kalam Hidup.

Heckhausen, H., 1968. *Achievement motive research: Current problems and some contributions towards a general theory of motivation*. In W. J. Arnold (Ed.), Nebraska Symposium on Motivation (Vol. 16). Lincoln: University of Nebraska Press.

Jackson, D.N., 1967. Personality Research Form Manual. Goshen,N.Y.:Research Psychologists Press.

Kyriacou, C. 2012. *Mentoring troubled pupils as a means of promoting citizenship, identity and community cohesion, CiCe, CitizED and Esmee Fairbairn Conference 'Creating Citizenship Communities*', pp.24-26. York, U.K.

Rohani, A., 2004. *Pengelolaan Pengajaran*. Jakarta. PT Rineka Cipta

Schunk, D.H. 2012. *Learning theories*. Terjemahan oleh: Eva Hamdiah & Rahmat Fajar. Yogyakarta: Pustaka Pelajar.

Schunk, D.H., & Hanson, A. R. 1989. Influence of peer-model attributes on children's beliefe and learning. *Journal of Educational Psychology,* 81, 431-434.

Sopah, Djamaah. 2000. *Pengaruh Model Pembelajaran dan Motivasi Berprestasi Terhadap Hasil Belajar*. Jurnal Pendidikan dan Kebudayaan No.22 tahun ke-5 Maret, 121-137.

Uno, H.B. 2011. Teori motivasi dan pengukurannya. Jakarta: BumiAksara.

Wesley Longman, Inc. Application of the 3C3R model. *Educational Research Review* Vol.4, pp.118-141. El Shevier.

Art Education Based on Edutainment of Creating Joyful Instruction

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Abstract: Many arts teachers still use the conventional methods in their instruction and what they do is repeating what their teachers did to them in the past, and will it be an effective teaching?. Teaching in the 21st century needs different ways for teaching different students, otherwise students may see teaching as something rigid and boring and they are fear for doing wrong. This condition will hinder them to be creative and skillful and to feel joyful in learning art. Moreover, there are still many art teachers who do not have background in art education, but they teach art education at schools. Therefore, this condition needs a creative way to make the art functions as part of education to develop the whole parts of students' brain, not only the logical part, and this can be started from elementary school. One of the creative ways is edutainment. Edutainment combines education and entertainment to create joyful learning. The joyful learning can be an instruction that uses methods or material which attract students to learn, for example using games to deliver the instruction.

Keywords: instruction, art education and edutainment.

Teaching in the 21st century is not as easy as it was in the past centuries, the developing human's mindset accompanied by the advance of technology demands teachers to be more creative in providing education and instruction to their students. Regarding educational problems, they can never be separated from the problems of teaching and learning methods as the bases of the *transfer of knowledge.* The learning process is an interaction between a teacher and the students who pay attention to several aspects of the educational goals. The fun and value-added learning will make the learning as the interaction and inter-relationship process between teachers who perform their duties and the students who are conducting the learning activities. The expectation of such interaction is that the teacher is able to provide and develop some motivations to the students in order to perform learning activities optimally. Education is a conscious and systematic effort carried out by people who are entrusted with the responsibility to influence the students, so they have the nature and disposition in accordance with the ideals of education (Munib, 2004: 34). Education is a tool for students to develop their talent, potential and skills for life. Therefore, it is time to design the education to provide insight, experience and to improve students' learning achievement. Learning and teaching are two activities that are singular, but they have different meanings. Learning is defined as a change in behavior as a result of experience gained, whereas teaching is the provision of conditions that stimulate and guide students' learning activities to acquire the knowledge, skills, values and attitudes that could bring changes in behavior and self-awareness as a person. The purpose of the study is: to know the intelligence and the proficiency to a concept which are previously unknown, to be able to do something that previously cannot be done either behavior or skills, to be able to combine some knowledge into new understanding, including skills, knowledge, concepts as well as attitudes and behavior, and to be able to understand and apply the knowledge acquired. Based on the concept of learning and teaching, the teaching and learning activities should be carried out directionally and structurally so that it results in two-way interaction which is

between the teacher and the students. One-way interaction will lead to passive learning and teaching activities.

The activities of joyful learning and teaching process will give a great influence for the teachers and the students. The learning message delivered to the students should be able to generate interest and positive actions that can be done for the student himself and his surroundings. Here is the important role of a teacher in the learning process. The teacher's roles in teaching cannot be replaced by machine, tape recorder, book, and the most sophisticated computer. The learning processes that cannot be done by those tools include many human elements of a teacher such as attitude, value system, feeling, motivation and habit. However, by the changing of increasingly sophisticated era, the transfer knowledge by teachers can be helped by technological development, so the message can be more communicative and in accordance with the needs of education in the present. According to Majid (2005: 16), teaching is a way on how to prepare a learning experience for students. In other words, teaching is a process conducted by teachers in guiding, helping, and directing students to get the experience. Meanwhile, Tardif (1987) defined that teaching is interpreting an instruction in more detail namely, preplanned, goal-directed educational process designed to facilitate learning, which means that an educational process which is previously planned and directed to achieve the goal, and is designed to facilitate learning activity (Muhibbin, 2003). In other words, teaching is a process, attitude, the way of teaching or teaching something, and anything about delivering education or notice about experiences or occurrence that someone has or observes (Dariyanto, 1997). The differences between the terms of teaching and learning can be observed in the table below.

Table. 1 Teaching and Learning

No.	Teaching	Learning
1.	It is implemented by those who work as teachers.	It is implemented by those who can make people learn.
2.	The goal is to convey information to the learner.	The goal is to establish learning among the students
3.	It is one of learning strategies.	It is a way to develop an organized plan for learning purposes.
4.	The learning activities take place only if there is a teacher.	The learning activities can take place with or without the presence of a teacher.

Based on the definitions above, it can be concluded that learning is broader than teaching.

PRINCIPLES OF LEARNING

A. Principles of learning, according to Gagne in a book entitled Conditions of Learning, (Gagne, 1997) he states that there are nine principles that can be done by teachers in learning, as follows:

1. Gaining attention: something which raises students' interest by expressing new, strange, contradictory or complex things.
2. Informing learner of the objectives: informing the skills that should be attained by the students after they finish the lesson.
3. Stimulating recall or prior learning: stimulating memory about the knowledge that has been learned as the requirement to learn the new materials.
4. Presenting stimulus: conveying materials that have been planned.
5. Providing learner guidance: asking some questions which guide the process of students' way of thinking, so they have better understanding.

6. Eliciting performance: students are requested to show what has been learned or their understanding to the materials.
7. Providing feedback: telling how far the accuracy of students' performance.
8. Assessing performance: Assigning a test or assignment to find out how far students understand the purpose of learning.
9. Enhancing retention and transfer: stimulating the ability to remember and to transfer by providing a summary, conducting a review or practicing what has been studied.

The principles of learning according to Supaman adapted from Fillbeck (1974) thought as follows:

1. New responses are repeated as results from responses which previously occur. The implication is the need of administrating positive feedbacks immediately to the success or the correct response from the students, students should be actively giving responses, not only listening and sitting silently.
2. Behavior is not only controlled by the results from response but also under the influence of conditions or occurrences around the students' neighborhood. The implication is the need to declare the purposes of learning clearly to the students before the lesson is started, so that students are ready to study harder (Siregar, 2010).

ART EDUCATION

Art is one of lessons taught at school. Along with the other lessons, art is expected to contribute well on the children's character education. Character creates generation having intelligence based on the talent and the ability they have. Here are the eight intelligences of human being according to Howard Gardner, including: (1) verbal intelligence, (2) visual/spatial intelligence, (3) spatial intelligence, (4) logical-mathematical intelligence, (5) bodily-kinesthetic intelligence, (6) musical/rhythmical intelligence, (7) naturalist intelligence, and (8) intra 8 personals/interpersonals intelligence.

Here is the role of art including growing the ability and the intelligence of each child based on each talent and ability that he or she has because every kid is an individual created differently and each person has a specialty at school. The art education is achieved not to create an artist student (as the essential purpose of art underlines) because it can only be gained from the art education at vocational high schools. They can be the vocational high schools majoring arts, then the student can continue to a higher level of art study, such as at the Art Institute of Indonesia, the Technology Institute of Bandung, the Art Institute of Jakarta, and so forth.

The art education at school should generally be taught as contextual learning helping the students to comprehend the concept of learning and the concept of creativity, to grow the love to aesthetic, to grow the appreciation attitude to art pieces and so on. However, the fact shows that art is taught as the essential learning, so the students feeling that they have no talent in arts become frustrated and low-esteemed compared to their talented friends.

Art is to develop the human brain completely. The research shows that the student with participation in arts (like fine art, music, dance, or theater) shows a better performance on the other fields. The student can be guided to establish creative solutions through their piece of arts. Therefore, their skills of problem solving and thinking also increase.

THE EDUTAINMENT METHOD

In general, the education of fine art is one of the most popular lessons by the students at school because they can explore their creativity through arts. However, in fact some students also do not like having the lesson. Those getting used to use their left brain and their physical

skill (such as athletes) will feel being tortured when they are asked to use their right brain requiring much imagination. Through the same way of teaching fine arts in the 19th century, will the way of teaching arts be effective? The learning of fine arts requires innovation through different methods to apply which are appropriate in the 21st century.

The lesson delivered in a mediocre way through mediocre skills will result to the boredom of the students in teaching-learning process, even in an art lesson. A teacher should have a skill to manage the material delivered in an interesting way, so the transfer of knowledge can be well-obtained by the students. An interesting learning process can be an entertainment, and is no longer something to fear by the students. Therefore, the interesting learning does really matter for them. Here we have edutainment. Edutainment comes from the words of education and entertainment.

Education means the process of teaching and learning, while entertainment means enjoyment. Hamid (2011: 17) defines edutainment as the process of teaching and learning designed by combining the education material and entertainment in harmony, so the activity of learning goes interestingly. Therefore, the soul of edutainment is to create an interesting teaching-learning situation.

Edutainment here is to combine the two concepts of education and entertainment in one activity. The entertainment mentioned means the delivery of meaningful and interesting lesson. It does not neglect the essence of material delivered. Therefore, the edutainment method does not deliver too much entertainment, but it delivers a meaningful entertainment, so the transfer of knowledge can be meaningful for the students. To meet the expected target, the edutainment method needs a learning design called message design. There are several different types of message. There is message delivered through pictures, texts, or words. The words, images, animation, and music are well-arranged, so a condition appearing for a certain purpose is called as message design (Pranata, 2010: 115).

Edutainment is a process of learning designed well, so the aspects of education and entertainment can be combined in harmony to create a fun learning. The fun learning is usually done through humor, game, role-play, and demons-tration (Hamid, 2011:11).

John Huizinga, a Dutch philosopher, once mentioned about *Homo ludens* meaning the human being who plays. He underlined that human culture first appeared in the form of game, and the instinct to play has existed from kids to elderly people. If we are good in putting the instinct on every aspect of life, there will be many positive things that we can earn, including the education synergy (Indradi, 2014:10).

The new innovations are that the students will effectively learn in a fun and stress-free learning (called revolution of learning). The lesson delivered should also be managed in the situation of playing and doing experiment, so it is no longer boring, but it is an educative and fun playground for the students.

The fun learning is not about making the students laugh out loud. It is more about a strong cohesion between the teacher and the students in a fun situation without stress physically and psychologically because the stressful learning can only reduce the students' creativity. William in his edutainment methods notes 3R elements, including: 1) relevance, 2) relationship, and 3) responsibility. Students have a responsibility to be respectful and helpful to everyone in the classroom. You, as the educator, model the expected student behavior (Brad Johnson, 2010: 146). Being mention that edutainment is a distinctive form of entertainment that enables the participants to be educated such as getting new information from various fields of our life) or even brought up (their postures, values, and behavioral patterns could be influenced (Nemec, 2002: 1).

Edutainment-Based Art Learning

Edutainment has transformed in several models like humanizing the classroom, active learning, the accelerated learning, quantum learning, and so forth. Here is the basic concept of each model.

a. Humanizing the Classroom: meaning to represent as human, while classroom means the room of a class. Therefore, humanizing the classroom literally means humanizing the students in a classroom. Here it is shown that in the process of learning, the teacher should treat each student in each condition of the student.

   Humanizing the classroom is first mentioned by Miller focusing on the model development of effective education, or in Indonesia it is called as personality education or value education. The idea of Miller supports the students to: 1) obtain self-awareness in a growing and developing process, 2) find the self-concept and self-identity, and 3) combine the harmony of heart and mind.

b. Active Learning: meaning being actived, while learning means the process to learn. Therefore, active learning means the process of learning actively. According to Silberman, learning is an automatic consequence of information for the students. Learning requires the involvement and attitude simultaneously in an active learning where the students learn. They use their brains, learn ideas, solve various problems, and apply what they have learned.

c. Accelerated Learning: meaning being much quicker, and learning means the process to learn. Therefore, the accelerated learning means doing the learning much more quickly. The basic concept of the learning is done rapidly and satisfyingly in a fun way. The idea maker, Mejer suggests the teachers to manage the classroom through Somatic, Auditory, Visual, and Intellectual (SAVI) method.

d. Quantum Learning: quantum is defined as the interaction changing energy to be light. All lives are energy. Meanwhile, learning means the process to learn. Learning is done to earn as much light, interaction, relationship, and inspiration as possible.

   Based on the method of quantum learning, there are three types of human learning, including visual, auditory, and kinesthetic. If someone is able to identify his or her type of learning, and does the appropriate learning, the process of learning will be so much fun and it can share optimum result. Learning can be done at various places, yet it is not always done at school.

e. Quantum Teaching: tries to change the monotonous and boring situation of learning to be a merrier and happier learning situation by combining the physical, psychological, and emotional potentials. The students' activities are well-integrated. Quantum teaching offers the principles of learning design system effectively, efficiently, and progressively along with the applied methods to obtain the learning result in a limited time. Overall, the fundamental principle of edutainment is that the learning goes in an interesting, fun, and quick way, and the result is satisfying and remarkable.

   Thus, it has become the reason why learning employing edutainment is necessarily important because when the students learn in a fun situation or condition (learning by playing), they will absolutely learn.

The Edutainment Learning Approach

In the method of edutainment learning, there are several approaches including Somatic, Auditory, Visual, and Intellectual (SAVI).

a. Somatic Way of Learning

"Somatic" is derived from Greek meaning body (*soma*). Therefore, somatic learning means learning by using the sense of touch, anesthetic, practice involving physical and occupying as well as moving body while learning. It is also known as kinesthetic (movement). Somatic here means learning by moving and doing, so somatic learning is a kind of learning underlining the aspect of body movement or learning by doing.

b. Auditory Way of Learning

Auditory means learning to speak and listen, or known as learning by talking and listening. Therefore, auditory learning means the way of learning emphasizing the aspect of hearing. The students will learn quickly if the material is delivered through lecture or something to listen.

c. Visual Way of Learning

Visual here is defined as learning to see and describe or known as learning by observing and picturing. The way of learning is concerning the aspect of observation. The students will learn the material quickly if it is taught through texts or pictures.

d. Intellectual Way of Learning

Intellectual learning means learning by programming and reflecting which means learning by solving problems. Therefore, intellectual learning means learning focusing the aspect of logics. The students will learn the material quickly if it is designed underlining the aspect of problem solving (Meier, 2005:263).

The Tools and Media Used in the Edutainment-Based Art Learning

The learning media of arts used in the edutainment method are:

1. audio-visual media, including projector media (overhead projector, slide, film, and LCD), non-projector media (whiteboard/blackboard, poster, board to paste, cartoon, flannel board, comic, chart, diagram, picture, graphic, and so on),and 3D tools like artificial object, diorama, doll, mask, map, globe, fair, and museum
2. media occupying technique or machinery, including slide, film strip, recorded film, radio, television, VCD, electronic laboratory, auto-instructive tools, automatic classroom, internet, and computer
3. games combining the games themselves and the discussed material, and crafting by using new media. Here the students are given a chance to explore the material surrounding as the learning media, such as canvas, stone, wood, cloth, used paper, used plastic, and so on as the learning media for making a creative piece of art.

The Steps of Learning by Using the Edutainment Game Method

The steps of learning arts by using the edutainment method are:

1. The teacher starts the lesson enthusiastically and greets the students in a different way, for instance he or she asks each student to express a quote or wise words to motivate their life and dreams;
2. The teacher delivers the material and what they are going to do;
3. The teacher asks the students to comprehend the learning material through games;
4. The teacher and the students are involved in the designed games;
5. Each student will try to play games, and the other students will be supporters and will be prepared to wait for their turn to play;
6. The games can be played individually or in groups, or it can also be conducted through the other games, like role-playing, card sort, chain debate, and so forth. Those who lose will be given an educative punishment, like singing national songs, so the punishment is not about something to fear but educative. Basically, the edutainment method is the real application of

active, innovative, creative, effective, and fun learning (or popularly known as *PAIKEM* which stands for active learning*, innovative, creative, effective, and enjoyable*). There is also target-based fun learning (or known as stands for *happy and oriented to the goal*. To create a fun learning, a teacher should master IM3 (ice-breaking, material, method, and media). Ice-breaking can be puzzles, games, wise words, songs to sing together, so the teaching-learning process turns alive and the students are awaken through ice-breaking activities.

The edutainment concept is more than just bringing the students like watching a comedy show. Edutainment is not about the teachers who are good to throw humors or about the schools having LCD projector because edutainment merely comes from the teacher's natural attitude to deliver material in a fun way.

The teacher should realize that his or her job is not only about the transfer of knowledge but also about being a motivator and a facilitator. The teacher should keep supporting the students and should be well-performed to make the students enjoy the comfortable and fun learning. The learning done through the method should avoid the teacher's habit to give lecture. The teacher should not be the learning center because the students come to school not only to be informed but also to find information themselves. The students should be given an opportunity to explore themselves through their creativity. Give them a chance to be creative, to deliver opinion, and to find solution from their own problems. The teacher just needs to guide not to force them. In a fun teaching-learning process, the teacher can use the following techniques:

1. Teacher brings "strange" material/media which will be related to the material that will be discussed that day.
2. Teacher could tell an actual fact which is then connected to the material given that day.
3. Asking about certain event related to the material and giving reward if someone can answer the question.
4. Teacher can surprise the students by singing a song that has relation to the material that day.
5. Taking attendance by asking the students to respond using the related terms in the lesson that day.
6. Creating games related to the material, for example concentration test, games about Indonesian local song, or game related to art material such as making picture puzzle, arranging puzzle, etc.
7. PAIKEM (active, innovative, creative, effective, and fun learning), Some also add GEMBROT (fun and purpose oriented) to make a fun learning process, a teacher should master Im3 (ice breaking material, method, media) which can be in from of puzzle, games, quotes, singing together in order to liven up the stiff class and to revive students' passion with ice breaking.

The Advantages of Edutainment

According to Vogotsky, as cited by Megawangi, playing and concrete activities can give a natural momentum for a child to learn something that is appropriate with his growth phase (age appropriate), and his specific needs (individual needs). Playing is an effective way for the child to grow properly in early age (Pre- operational thinking), and in elementary school stage (concrete operational thinking). The edutainment method, a learning method arranged through game principle, uses entertaining media to activate both sides of brain, balancing left and right hemispheres well. This is because, anatomically, left and right brain hemispheres work and function differently. (http://nurlaelifitri. blogspot.co.id /2013/09/ metode-pembelajaran-edutainmentbe-lanbe.html).

The appearance of edutainment concept which allows the conducive and fun learning

process, has provided assumption that; first, positive feeling (happy/joy) will accelerate the learning; Second, if someone can use the reasoning and emotional ability properly, he will make an unpredictable leap on his learning outcome; third, If every student is given the appropriate motivation and taught correctly, and their learning style and process are appreciated, he will achieve most favorable learning outcome.

REFFERENCES

Boocock, S.S. & Schild, E.O. 2001. *Simulation Games In Learning.*
Harefa, A. 2000. *Menjadi Manusia Pembelajar* Jakarta: Kompas Media Nusantara.
Meier, D. 2005. *The Accelerated Learning.* Bandung: Kaifa, PT Mizan Pustaka.
Nemec, J. & Josef, T. 2002. *Edutainment or Entertainment. Education Possibilities of Didactic games in Science Education,* Czech Republic.
Hamid, M.S. 2011. *Metode Edutainment*. Jogjakarta: Diva Press.
Indradi, A. 2014. *Menghipnotis Siswa dengan Edutainment.* Malang: Alta Pustaka.
Eveline, S. 2010. *Teori Belajar dan Pembelajaran*. Bogor: Ghalia Indonesia.
DePorter, B. & Hernacky, M. 2002. *Quantum Learning*. Bandung: Kaifa, Pt. Mizan Pustaka.
Pranata, M. 2010.*Teori Multimedia*. Malang: Universitas Negeri Malang
Tardif, R. 1987. *The Penguin Macquarie Dictionary book of Australian Education*, Ringwood Victoria: Penguin books Australia.
http://nurlaelifitri.blogspot.co.id/2013/09/metode-pembelajaran-edutainmentbelanbe.html)

The Development of Refreence Book Based on the Research about the Amylolytic Bacteria in Sago Waste Product at Halmahera Island for the Student

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Abstract: The reference book is a learning media that need by student in the learning process, the material used as the substance in the reference book making is the better from the research result based on the locally resources. The sago waste product is found at the sago processing place and cause environs mental pollution. In sago waste product were found some amylolytic bacteria species that could degrade amylum to be simple compound. This research used methods is descriptive, this research is done to make a reference book based on the research result. The research result proved that there are three amylolytic bacteria species *Bacillus alvei, B. amyloliquefaciens*, and *Pseudomonas putida*. From three bacteria species, *Bacillus alvei* have the highest amylase enzyme activity, to this bacteria is very potential for food industry, especially in amylum hydrolysis process. The need analysis results showed that 100% respondent need reference book about the amylolytic bacteria from the sago waste product. The result is the substance used for the reference book making consist of: the amylolytic bacteria species and the amylase activity of each bacteria species.

Keywords : amylolytic bacteria, sago waste product, amylase activity, reference book.

Book as a source of information that originated from observations, researches, and literature studies will contain important information needed by students. Books compiled should be based on local resources thus they will add new knowledge for students. According to Inotji (2000), reference materials in form of books contain information that generally compile in systematic way and to be given to readers who need supplement or additional information when they read their literature sources.

College students (hereinafter, students), in North Moluccas has known and familiarized with the existence of sago (*Metroxylon sago*), which is the daily diet that is equal to other staple foods such as rice. The existence of traditional processing is beneficial for the surrounding societies who processed sago as the livelihood. However, the residual of the production process gives impact to the environment. Unused sago waste is discarded to soil and water causing environmental pollution. The discarded sago waste, according to Naiola (2012), generally, still contains amylum 15-30%, amylose 70-85% and amylopectin 5%. The content of amylum gives opportunity for amylolytic bacteria to grow using the nutrient in sago waste. The existence of local resources is very important to be raised and packaged in form of reference books needed by students in their learning process and by general researchers. In addition, the compiled reference books will add knowledge to students on the existence of bacteria in sago waste that traditionally processed by societies in North Moluccas, especially in Halmahera Island.

The management of natural resources and environment refers to UU RI No. 23, 1997 on the management of environment. It is stated in article 1 paragraph 2 that the management of environment is an integrated effort to conserve the function of environment consisting of policy on the regulation, utilization, development, maintenance, restoration, supervision and control

of environment. One of ways in developing local resources in this research is by developing local resources-based reference books for students in Ternate colleges. According to Sulistyo (1993), the characteristics of reference books are: they are not lent in the library and the information is compiled to facilitate quick and thorough research since it is arranged according to title, subject, and chronology along with an index for retrieval. The compiled books stated the existence of amylolytic microbe, especially for microbiology course. In microbiology course there is a subject on hydrolyzing bacteria from amylum, protein, fat and others. Therefore, sub-material presented in the reference books will give more new information to add reference in writing and to help students' learning process.

It is expected that the development of reference books has the following advantages: interesting material packaging accompanied by documentations of sampling, identification method and result of conducted researches, and information on relevance literatures. Reference book is chosen as development tool since it is flexible and does not refer to the existing curriculum.

Research Purpose

The purpose of the research is to produce reference book consisting of material and sub subject that discuss on amylolytic bacteria from sago waste in Halmahera Island as a learning base by utilizing local resources of Halmahera Island.

METHOD

Research Model and Development

The research used observation technique for the need of students' study material; whereas, the development of reference book was based on Borg and Gall with limitation only for four steps: (1) research and data collection, (2) planning, (3) drafting of reference book of microbiology, (4) expert validity test, (5) product revision, (6) small group test, and (7) final product revision.

DISCUSSION

The Development of Reference Book of Microbiology

The research was the development of reference book of microbiology. It referred to Borg and Gall (2003) since it is more systematic. It was also hoped that the development model could help researchers in developing current reference source gained from pure research results. Reference book of microbiology consists of 10 chapters by presenting on the book issue as a whole. The chapters in the book begin with introduction, scope of study or material, and references with glossaries as a closing.

Topic on amylolytic microbe was chosen and developed based on the result of researches on indigenous amylolytic bacteria in waste of sago production that processed traditionally in Halmahera Island. A substance of discussion in every chapter will consist of introduction, method, result and discussion along with conclusion and reference. It is in line with requirements of scientific paper writing i.e. formulation of problem, support of data or up-to-date, detail and clear theory, and conclusion as well as reference.

Reference book of microbiology is aimed to biology students, especially for students who registered for microbiology course. It is, however, likely to be used by general researchers based

on their research needs in their field. The results of the observation sheet aims to get an overview of the importance of microbiological material needs by students, especially that amylolytic bacteria indigent on sago waste in the developed of reference book.

Material of microbiology in the reference books could add insight on indigenous amylolytic microbe in sago processed waste. Description on sampling and macroscopic and microscopic discussion could add students' knowledge on microbiology.

Material in the reference book of microbiology is presented narratively and no feedback mechanism. The reference book is compiled and wrote based on the writing rules of reference book set by Center for Curriculum and Book (2013), which are, it is not the fundamental guide for student and teacher and teacher in a learning activity, not accompanied by evaluation instruments and, not presented based on class/semester.

The product of the development is in form of reference book that has the following superiorities: (1) the book is compiled based on rules set by Directorate General of Higher Education (DIKTI) and not only aimed as reading material for students in academic environment, but it also can be used as one of alternatives source of reading for the societies; and (2) the book on microbiology is equipped with pictures gained from researches result conducted by researchers and literature study; therefore, students are able to study it.

Important Reference Books for Students

The development reference book of Microbiology is very useful because 1) it enables to find easily an item the material of bacteria amylolitic from sago waste and reader can consulted previously 2) it allows to pass on to a friend or colleague details of an item that to consulted, secure in the knowledge about the material that they will be able to trace it easily 3) it helps the reader understand how to have reached their conclusions.

The written reference book is a reference book of microbiology for colleges in Ternate that in line with the area of expertise or field of science of the authors, which is microbiology. The book also has specification and excellences that distinguish it from previous books. The composition of each chapter and sub-chapter is proportional and is using standard Indonesian Language (except of technical or scientific terms of the field of study). The font used in the reference book is Times New Roman based on the writing ethics. It is free from plagiarism and it never been published before or in the process of publishing (proven by a statement).

Borg and Gall (2003) used research and development steps (the R&D cycle) for education purpose. Those steps consist of the following: (1) research and information (research and information collection), measurement of needs, small scale research literatures study and consideration in term of values, (2) planning, the preparation of research plan will consist of abilities needed in the implementation of the research, formulation of problems, and purpose to be achieved in the research, design or research steps, and the possibility of test within the scope, (3) preliminary developing of material book was learning process and evaluation instruments, (4) ppreliminary form of product (preliminary product test) Field test. During the field test, observation, interview and questionnaire distribution are conducted, (5) main product revision to revise and finalize the result, (6) main field testing conduct a trial for more than 100 people of trial subjects, (7) operational product revision finalizing the product of field test result, (8) operational field testing. It is conducted by 10-30 schools and involving 40-200 subjects. The test is conducted through questionnaire, interview, observation and result analysis, (9) final product revision the finalization of the product is based on input from field implementation test, (10) Dissemination and implementation, utilization and distribution. The result was reporting of experiment in the professional meeting in journal and to have cooperation with publisher to

publish it. The following picture illustrates the chart of Development Procedure of Development Model.

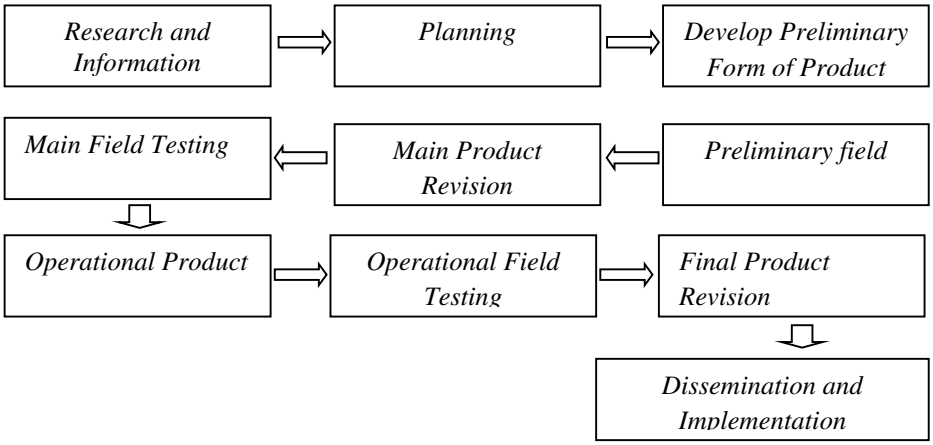

Figure 1. Chart of Development Procedure of Development Model of Research and Development (R&D) (adapted from Borg and Gall, 2003)

Following is the development of material to be discussed in reference book of microbiology for students and other researchers. Material raised are result of researches that adjusted to the need of microbiology course but it packaged based on local resources in Halmahera Island, which is waste sago production process that traditionally processed by the society.

Table 1. Systematic of Material Content in Reference Book of Microbiology

Item	Discussed Material
Title	Indigenous Amylolytic Bacteria from Waste of Sago Production Process in Amylum Hydrolysis: Its Character and Potential in Halmahera Island
CHAPTER I	Getting to Know the Production Process of Sago by Societies in Halmahera Island
CHAPTER II	Environmental pollution problems caused by sago waste
CHAPTER III	Indigenous bacteria in sago processed waste
CHAPTER IV	Activities of Amylolytic Bacteria
CHAPTER V	Prospect in the Use of Amylolytic bacteria in hydrolysis process of amylum in sago processed waste
CHAPTER VI	Isolation method of amylase enzyme produced by amylolytic bacteria
CHAPTER VII	Characteristics of amylase enzyme by amylolytic bacteria
CHAPTER VIII	Measurement techniques of activities of amylase enzyme from indigenous amylolytic bacteria
CHAPTER IX	Testing method of protein of amylase enzyme

CONCLUSION

The developed reference book consists of nine main chapters consisting of Getting to Know the Production Process of Sago by Societies in Halmahera Island; Environmental pollution problems caused by sago waste; Indigenous bacteria in sago processed waste; Activities of Amylolytic Bacteria; Prospect in the Use of Amylolytic bacteria in hydrolysis process of amylum in sago processed waste; Sample of researches that use indigenous

amylolytic bacteria in amylum hydrolysis; Isolation method of amylase enzyme produced by amylolytic bacteria; Characteristics of amylase enzyme by amylolytic bacteria; Measurement techniques of activities of amylase enzyme from indigenous amylolytic bacteria; and Testing method of protein of amylase enzyme.

Suggestion

The research is not perfect yet. Therefore, further researches are needed to complete it. Suggestion for future research is that exploration is needed on the potential of amylolytic bacteria from sago waste and a booklet should be produced for local society. The booklet is aimed for society to have more understanding on the meaning of ecosystem sustainability in the forest, especially for indigenous bacteria in sago waste.

REFERENCES

Borg WR, & Gall, M.D. 2003. *Educational Research: an Introduction. SeventhEdition.* Boston: Pearson Education Inc.

Hajatullah, I., dan Puadah, D. 2000. *Reference service*. Bogor: Center for Agricultural Library and Research Communication.

Pusat Kurikulum dan Perbukuan. 2013. *Instrument preselection Nonteks Lesson Books*.(http://www.puskurbuk.net/downloads/browse/Perbukuan/instrumenpenilaian BNTP, Retrieved on 7 November 2016.

Sulistyio, B. 1993. *Introduction of Library Science*. Jakarta. Universitas Terbuka. Depdikbud.

A Study of Pre-Service Teachers' Critical Thinking on the Cell Biology Learning

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Abstract: This study is a survey seeking to investigate critical thinking skills of university students in Cell Biology learning. The aim is to obtain explanation regarding pre-service teachers' critical thinking skills from their learning process conducted during the even semester in the Academic Year of 2014-2015. The data were gathered by distributing a questionnaire and a critical thinking test. The questionnaire given to the students consists of items related to the learning process conduct, including model, media and learning strategies used. On the other hand, the test is made of three simple essay questions regarding the material discussed which is protein synthesis. The data from both the questionnaire and essay test were analyzed using simple descriptive. The findings from the survey have shown that a) the teaching and learning has used cooperative learning approach; b) it has used learning media such as books, animation, and Power Point slides; and c) the mean of the critical thinking test is 42.4. The critical thinking skills were based on the following indicators: (1) explanation 36.7; (2) analysis 58.8; and (3) drawing conclusions 31.7. The findings suggest that the critical thinking skill of the students is relatively low.

Keywords: critical thinking skills, cell biology, cooperative learning.

The teaching and learning in the 21st century is a profession requiring skills for student teacers. To mention, one of the skills includesbeing able to design learning involve students' thinking process. In order to achieve such skill, it is vital to prepare student teachers with learning which trains them to think. Liliasari (2001) asserts that to win the global challenge of the 21st century it is important to improve higher order thinking skills of student teachers, paticularly critical thinking skill.

Critical thinking, according to Elder (2012: 2),*critical thinking is that mode of thinking about any subject, content, or problem-in which the thinker improves the quality of his or her thinking by skillfully analyzing, assessing, and reconstructing it.*This definition refers to critical thinking which means that it is a mode of thinking – about any subject, content, or problem with that the thinker makes an attempt to enhance the quality of his thought by skillfully analyzing, assessing, and reconstructing it.

The aims and purposes of assessing critical thinking are as follows: (1) to diagnose the level of student's critical thinking. If a teacher wants to focus on learning, it would be best to start from the position of student's critical thinking. A test is helpful in identifying the weaknesses and strengths, for example the skill of identifying assumptions, (2) to give feedback on the proficiency of student's critical thinking. Knowing the weakness can lead a student to better focus on improving it, (3) to motivate students in order to be a better critical thinker (Ennis, 1993).

Biology cell, as a learning material, has its own uniqueness compared to other learning materials. It is unique in its point of view in discussing the material which includes the structure and organ functions of cell in both prokaryota and eukaryota. This particular material encompasses anatomy, mechanics, and physiology, thus it engenders difficulty in students for

this material is abstract and hard to analogize with other objects in the surrounding. Similarly, Martomidjojo (2011) and Lukitasari (2013) propose that Cell Biology is an abstract and complicated learning material. Such characteristics of the material become one of the causes of difficulty experienced by students in learning it.

Schmid and Farquhar (2010) further explain that: 1) Biology cell is fundamental for identifying organel of the cell, along with its structure and functions; 2) it is a field of science requiring multidisciplines to be able to learn it; 3) it is needed to untie the complication of human diseases; and 4) Biology cell is defined as encompassing membrane traffic, cytoskeleton diynamic; cell-matrix interaction, signal transduction, and the structure and function of nucleus.

One of the materials being regarded as hard and abstract is that of myosin response after tying calcium ion (Ca^{2+}). The structure of myosin protein resembles the cord of a rope. When the rope is unbound, it will make two ropes. When myosin protein bindscalcium ion, the cord of myosin protein will unbind which making it two cords of protein in parallel and changing the conformation of myosin head, made it open and ready to receive ATP molecules, thus the movement of cellular muscle will be activated.

To comprehend such example requires the process of transferring the prior knowledge by attempting to understand the new one. In this mode of thinking high critical thinking is required, particularly the critical thinking at explanation aspect with its ideal category that is being able to provide explanation and integrate important information into the context of discussion, which not everyone can do it (Zane, 2013: 37).

Some profiles of student teacher's critical thinking is still low in several places. The result of a critical thinking test administered to students of Biology Cell in Kuningan – West Java shows the score of 6,16 (21%)in the first group, and of 7,2 (24 %) in the second(Martomidjojo, 2011:385). Low level of critical thinking is also found in student teachers in Pontianak regarding the concept of Biological Diversity in Mangrove Forest by the score of 57,88, in student teachers in Lampung regarding the concept of Metabolism by 37,25 and in student teachers in Semarang regarding the concept of Biodiversity by the score of 57,87 (Sudargo et al.,2010).Such low critical thinking is also found in student teachers in Malang on the concept of Evolution shown by the score of 7,63 (31,8%) in the first group and 6,97 (29,0%) in the second group (Suciati, 2015).

The data described above delineate the low critical thinking skills of student teachers. This state is in contrary with the challenge being faced which is to implement the teaching and learning that can improve the thinking skills (Liliasari, 2001). The teaching and learning conducted in the class should be able to make students think (Corebima, 2009).Paul and Elder (2006: 4) state that *yet the quality of our life and that of what we produce, make, or build depends precisely on the quality of our thought. Shoddy thinking is costly, both in money and in quality of life. Excellence in thought, however, must be systematically cultivated*. It means that the quality of our life and what we make or produce depends on the precision of our quality of thought, thus thinking is a fine investment both in the quality of financial and life. A qualified thought should be empowered and this empowerment can be initiated in the classroom.

This study aimed to investigate: 1) How is the critical thinking state of student's on the learning of Biology Cell in Lampung; 2) Can the critical thinking skills of student's on the learning of Biology Cell in Lampung be improved by cooperative learning; 3) How is the learning that is capable of improving the student's critical thinking skills.

THE THEORY

Critical thinking, according to Paul and Elder (2006: 4), is the art of analyzing and evaluating thinking with a view to improving it. Facione (2013:6) describes critical thinking as

referring to cognitive skills and disposition. Disposition means the tendency of attitude while cognitive skill means the mental capability. Facione divides cognitive skill into interpretation, analysis, evaluation, and self regulation. Ennis (1993) states that "critical thinking is reasonable reflective thinking focused on deciding what to believe or do". Critical thinking depends on the precision of reasoning; therefore one would have the faith to act. Facione (2013: 6) adds that critical thinking skills are defined not only as thinking critically (Disposition) but also cognitively skilled (cognitive skill).

Being cognitively skilled comprises explanation, interpretation, inference, analysis, evaluation, and self regulation (Facione, 2013:6-7). Zane (2013:37-47) develops a measurement rubric of critical thinking as in the following: a) Explanation consists of arguments and description; b) Interpretation is of quality of questions, clarifying questions, comprehension and finding links and patterns; c) Inference is making conclusions; d) Analysis is consisted of categorization, comparing and finding differences, and information selection; e) Evaluation is comprised of accessing data or source of material and the use of standard and criteria; and finally f) Self regulation is of self monitoring, reflection, and self correction (self introspection).Each of the aspect above is given score of 1 to 4 with the categories of *Well below expectation* (scored 1), *Below Expectations* (scored 2), *Meets Expectations* (scored 3), dan *Exceeds Expectations* (scored 4).

Study findings which are relevant with critical thinking is that of Chaijaroen,et al.(2012), report that problem based learning, resources, discovery learning, scaffolding, collaborative learning, and guidance can encourage students to think and find answers. CAM learning model and practice can improve student's critical thinking skills (Martomidjojo, 2011; Sudargo, 2010). Furthermore, PBL learning model and inquiry can also enhance critical thinking skills (Suciati, 2015). King (1995) mentions that teaching the technique of formulating questions can help studnts think critically and learn easier. Yang, et al. (2005) also adds that the implementation of ADF (*Asynchronous Discussion Forum*) learning and *Socratic* questioning method can help students express high level of critical thinking. Gunawan (2012) also confirms that Socratic questioning method can improve critical thinking skills. Khoshneshin (2011) reports tat the use of Socratic questions through online discussion on WWB *(Web Based Bulletin)* can help improve critical thinking skills. De Waelsche (2015) proposes that assigning students to make questions can trigger their critical thinking.

The concept of protein synthesis is included in "Chapter of Nucleus" and "Chapter of Ribosom and Protein Synthesis". The two chapters are arranged in three meetings. Several concepts are learned here, such as the concept of DNA, RNA, Replication, Transcription, and Translation. The expected competences include: 1) students are able to understand the structure and function of nucleus; 2) students are able to analyze the process of Replication, Transcription, and Translation. The following figure summarizes the concept of protein synthesis.

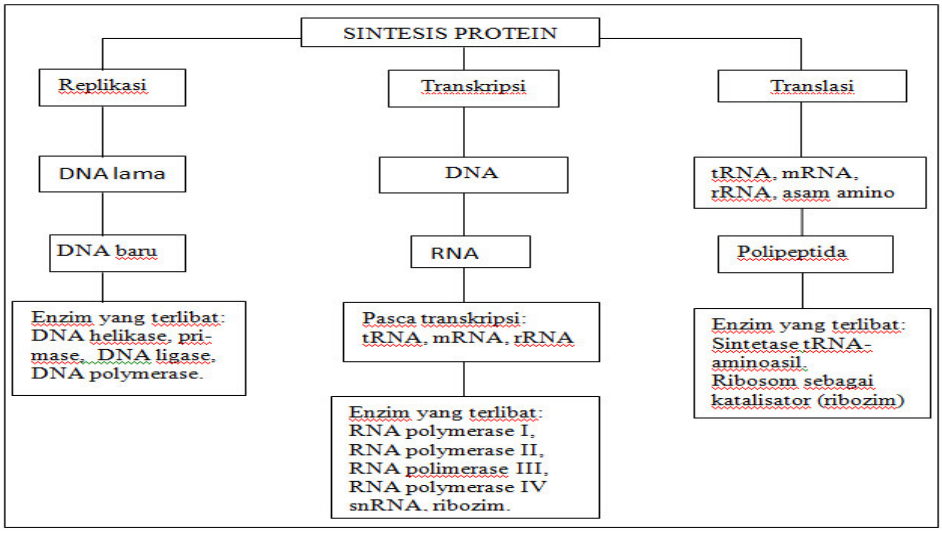

Figure 1 The Scheme of Protein Synthesis

DNA (*deoxyribo nucleic acid*) is that of genetic material own by prokaryota and eukryota. Studies have proven that DNA is the genetic material inherited to the generation. Evidences have shown that: a) DNA can transform bactery from non-pathogen into pathogen; b) DNA virus can program cell by infecting a cell and taking over its metabolic device;c) before the occurrence of mitosis, DNA will self replicate, and distribute the DNA the same amount to the other cell; d) The DNA composition differs among species, but is similar in the ratio of the four nitrogen alkali, namely Adenin, Guanin, Timin, and Citosin (Campbell et al., 2002: 298-301).

Each nucleotide unit is polymer of nitrogen alkali, sugar, and fosfat group. Phosphate of one nucleotide bound to sugar of the following nucleotide in a series. Ribose sugar is known as a composer of ribo nucleic acid or RNA, and contains four kinds of alkali, A, U, G, and C. Deoxyribo nucleic of sugar (position 2' hydroxyl (OH) occupied by hydrogen) is known as deoxyribo nucleic acid or DNA, and contains for alkali, A, T, G, and C (Albert; 2003: 82).

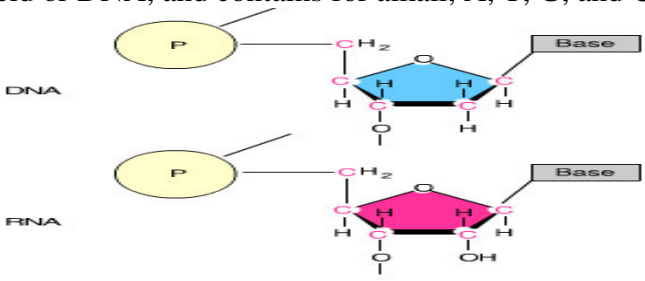

Figure 2 the Structure of Nucleotide Molecule of DNA and RNA

The concept of DNA replication.

DNA Replication becomes one of the evidences that DNA is that of genetic material. Replication process has been observed in prokaryota and eukryota. This process of replication includes several phases, such as: 1) Replication is initiated when the initiating protein identifies centari area (*origin of replication*) of the DNA and starts forming replication "bubbles"; 2) elongation of new DNA chain. Elongation of new DNA is catalyzed by the DNA enzyme of polymerase. The energy source ini this phase is nucleocyde triphosphat (Campbell et al., 2002: 308).

Based on the direction of the formation of new DNA chain, the terms *leading strand* and *lagging strand* are introduced. The two terms are distinguished by the existence of okzaki fragment. Okazaki fragment is formed to deal with the adversative replication direction with the opening direction of replication fork. The role of DNA helicase Single-stranded DNA-binding proteins (SSBs), and primase at the replication fork. Helicase moves along the DNA chain. When it is unbound and bound by SSBs in order not to twist (stay straight). Primase together with helicase synthesize RNA primer to start the okizaki fragment. RNA Primer will substitute into DNA by other DNA polymerase. DNA ligase will combine Okazaki fragment to the increasing chain (Karp, 2010: 542)

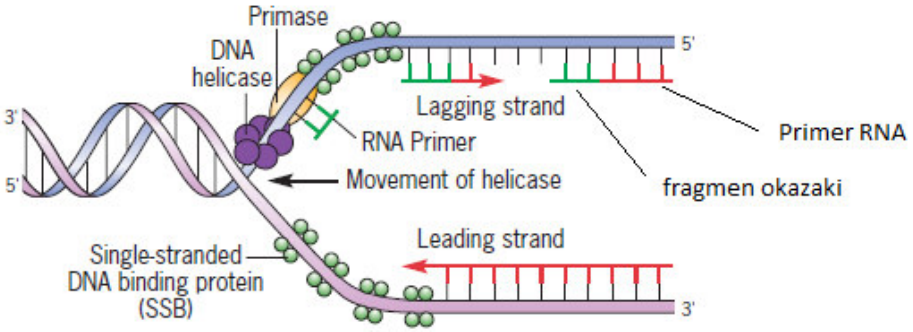

Figure 3. The DNA Replication Fork (modified from Karp, 2010:542)

METHOD

The study took time during the even semester of the Academic Year of 2014/ 2015. It employed survey method. The object of the study was students who were taking the course of Biology Cell in class A and B totaling 81 students. Data were gathered using a questionnaire and three essay questions with the minimal structure (Ennis, 1993). The questionnaire covers questions regarding the model of learning and assignment during the teaching of Biology Cell, which was distributed to both lecturer and students. The following questions were addressed to the students: (1) during the teaching of Biology Cell, did you raise a question? Yes, because… Never, because…; (2) during the teaching of Nucleus, Protein Synthesis, and Replication, some learning media were used, namely…; (3) during the teaching Nucleus, Protein Synthesis, and Replication some learning activities were implemented, among others: (discussions, lectures, exercises, mention others); (4) Did you help a friend in your group who had not understood the learning material? Yes, describe the material you explained to your friend… No, because…: (5) did you divide the task with friends when working with a group assignment? Yes, explain a sample of the task and how you distributed it.

Questions that are proposed to measure the critical thinking skills comprise three simple questions, such as the first question is used to measure the critical thinking skill by the indicatorsof analyzing the subindicator, comparing and finding differences, and selecting information. The second one is used to measure the critical thinking skills by the explanation indicator. The third one is used to measure the critical thinking skills by making conclusions.

The assessment guide for critical thinking refers to Zane Rubric (2013) using the scale of 1 to 4. The data obtained using the questionnaire and test is analyzed using simple descriptive.

FINDINGS AND DISCUSSION

Based on the questionnaire, it is known that the learning of Biology Cell has been conducted using cooperative learning. Cooperative learning is characterized by the presence of

student-student, teacher-student, and student-teacher communication (Rusman, 2012: 203).The conduct of teaching and learning is delineated in Figure1.Several characteristics of cooperative learning that were visible are the occurrence of task division among groups, information sharing from one student who has said to have understood to another who has not. Besides, the existence of discussion also shows that the learning has focused on the students, while the students' raising questions shows that the two-way interaction between the lecturer and students really existed.

The implementation of learning in this study has opened up chances for students to improve their thinking ability through sharing information with groups. The use of learning media such as animation and PowerPoint slides is expected to encourage the student's learning ability. Nonetheless, it is known from the score of critical thinking test that the student's thinking ability is not yet optimal. Taking an example, the student's responses (60%) during the learning in raising questions is essentially because they were expecting further clarification to make them comprehend the learning material, only one student was observed rasing a question with the expectation to know further regarding the material learnt. In fact, the question expected here is that of curiosity and comes truly from the student (*true question*) (Walsh and Sattes, 2011:113). This way, such curiosity will elicit a deeper question, instead of a question asking for clarification from teacher and friend.

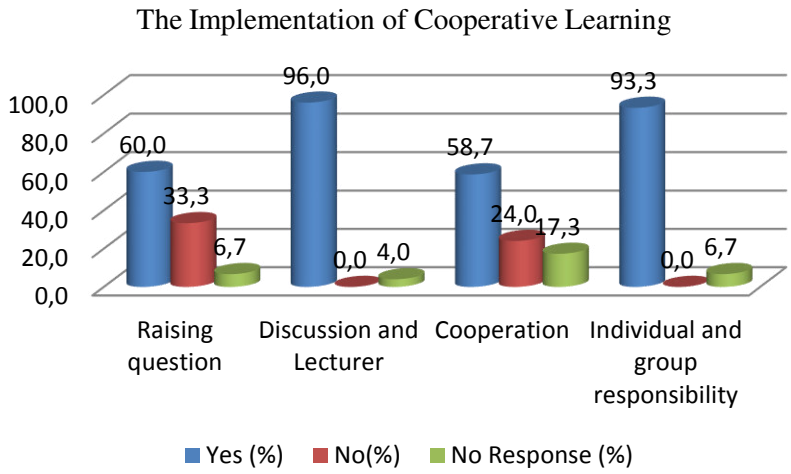

Figure 4 The Learning of Cell Biology Using Cooperative Approach.

Cooperative learning done here has proven capable of improving the student's learning behavior, particularly of making them responsible individually and in groups, allowing them to share information from a knowledgeable student to a non-knowledgeable one, cooperating, and interacting with the lecturer. Furthermore, this learning approach is better designed to improve the learning attitude by improving the way of thinking. As proposed by Corebima (2007), Paul and Elder (2006: 4), Facione (1990: 4)that thinking (critically) is very crucial in learning, and that this way of thinking should be taught to students all the time in order to improve their quality of thinking.

The profiles of student's critical thinking are described as follows: the mean of test score for critical thinking skills is 42.4. The profiles of critical thinking skills are as: (1) explanation 36.7; (2) analysis 58.8; and (3) making conclusions 31.7 (Table 1). Of the three aspects, the two (explanation and making conclusions) include in the *well belowexpectation*categorywhile the other one (analysis) is found in the *below expectation* category.

The test score shows that the students have the potential to analyze problems provided by the teacher. Analyzing is indicated by the student's ability to identify adversing differences. In the concept of DNA and RNA the students could successfully find the difference between the molecule structure of DNA and RNA. Meanwhile, some of the students still found difficulties in selecting information, particularly of all information presented regarding the structure of DNA and RNA, resulting in answers like memorization, not selecting information which is actually needed from the question.

Table 1. The Pre-Service Teacher's Critical Thinking Score Based on Some Indicators and Their Descriptions.

Indicators of Critical Thinking	Test Score	Score	Criteria	Descriptions of Critical Thinking	Ideal Description (Scored of 4)
Explanation	36,7	1,1	Very low *(Well below expectation)*	Not having information to support explanation	Detailed important information explaining the content that readers might not integrate to the text.
Analysis	58,8	2,35	Low *(Below expectation)*	• Assessing/ reviewing data/ facts. • Finding differences	• Selecting and organizing data/ facts to support texts or arguments. • Comparing "or" comparing generally or fundamentally.
Making conclusions	31,7	0,95	Very low *(Well below expectation)*	Making conclusions	Describing conclusions*).

*Ideal descriptions for Conclusions used the description with the score of 2 from Zane (2013)

A sample of answering form is not selecting information Figure 5. The question addressed is: "See the figure (Figure 2), find differences of DNA and RNA molecules by circling and provide a reason".

Positively, the answer shown in the figure above is conceptually true only if no figure attached to the question; however, seen from the critical thinking of the student it can be inferred that the corresponding student has not performed any information selection in order to provide the intended answer to the question. The intended answer is that the student could find the differences between ribose sugar (having OH^-) as a constituent of nucleotide, shown in the figure. Meanwhile, the alkali constituents of DNA and RNA are different in Timin and Urasil alkali, yet in the "questioned figure" such thing is not supposed to be the context of discussion. All this makes the answer given has not been selected yet.

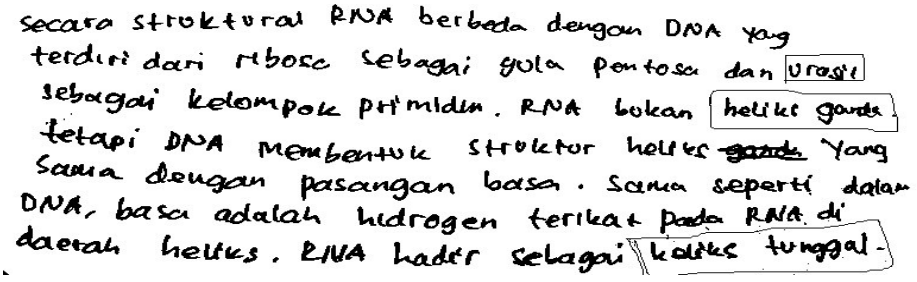

Figure 5 A Samples of The Student's Answer in Analyzing the Structure of DNA and RNA.

In accordance with the findings of this survey, an optimal cooperative is required in order to be able to improve the student's critical thinking skills. Hasan et al, (2013) have reported that cooperative learning is capable of improving student's critical thinking skils. Acording to Ennis (2003), moreover, developing critical thinking skills is not supposed to coplete all aspects at a time but step by step. It is suggested to first identify the weakness of criical thinking of every student with which any suitable strategy can be arranged to cope aftewards.

Teaching based on *Lesson Study* (LS) is an alternative to optimize cooperative learing. Through LS, strategies can be proposed to make a better learning (Doig and Groves, 2011; Lewiset al., 2004; Lewis, 2011; Subadi, 2013: 105), one of which is by improving the student's learning attitude through observation on their learning speed (IDCJ, 2012:26-61).

Findings from studies implementing LS have proven positive in improving the quality of learning in the study program of Biology Education (Marhamah, et al.: 2014; Pramudyanti: 2011; Lukitasari: 2014). Zukmadini (2014) suggests that implementing LS can improve student's critical thinking.

CONCLUSIONS AND SUGGESTION

To conclude based on the results of the survey conducted here, that (1) cooperative leanring has been done during the teaching of Biology Cell; (2) the student's critical thinking skills in learning Biology Cell is relatively below expectation and requires improvement; (3) cooperative learning can be used to improve critical thinking skills through the implementtion of LS.

REFERENCES

Albert, B., Hopkin, J., Lewis, R.R, and Walter. 2010. *Essential Cell Biology.* 3rd Ed. New York: Garland Science. p 82.

Campbell, R. and Mitchell. 1999. Biologi. 5th Ed (Translated). Jakarta: Erlangga. Pp 298-308.

Chaijaroen, S., Kanjug, I.and Samat, C. 2012. The Study of Learners' Critical Thinking Potential, Learning with Innovation Enhancing Thinking Potential. *Procedia - Social and Behavioral Sciences 46(2012) 3415 – 3420.*

Corebima, A.D. 2007. Review on: Learning Strategies Having Bigger Potency to Empower Thinking Skill and Concept Gaining of Lower Academic Student. Malang: Universitas Negeri Malang. Available at http://www.readbag.com/Conference-nie-sg.2007.paper-papers-COG483.

DeWaelsche, S.A. 2015. Critical thinking, Questioning and Student Engagement in Korean University English Courses.*Linguistics and Education.* Volume 32. Pages 137-147.*Homepage: www.*Elsevier.com/locate/linged.

Doig, B. and Susie G. 2011. Japanese Lesson Study: Teacher Professional. Development through Communities of Inquiry. *Mathematics Teacher Education and Development* 2011, Vol. 13.1, 77–93. Deakin University.

Elder, 2012. Our concept and definition of critical thinking. Available at www.criticalthinking.org/page/our-concept-and-criticalthinking. Accessed on 12 September 2016 at 14:35 WIB.

Ennis, 2001. Teaching for higher order thinking. *Theory into practice,*Summer 1993. College of education. The Ohio State University .

Ennis, R.H. 1993. Critical Thinking Assesment. *Theory into Practise*. Volume 32, Number 3, Summer 1993.

Facione, P.A. 2013. *Critical Thinking: What It Is and Why It Counts.*(updated five times)California:Measured Reasons and The California Academic Press, Millbrae, CA.pp. 6-7.

Facione, P.A. 1990. *Critical Thinking: A Statement of Expert Consensus for Purposes ofEducational Assessment and Instruction*. California:The California Academic Press.p.4.

Hasan, S. Ferny, M T, Corebima, A.D. 2013. Empowering Critical Thinking Skills in Indonesia Archipelago: Study on Elementary School Students in Ternate.Journal of Modern Education Review, ISSN 2155-7993, USANovember 2013, Volume 3, No. 11, pp. 852–858

International Development Center of Japan (IDCJ). 2012. *Panduan untuk Peningkatan Proses Belajar Mengajar: Program Peningkatan Kualitas SMP/MTs (PELITA).*In Cooperation with the Ministry of Education, Religious Affairs, Japan International Cooperation Agency, Universitas Pendidikan Indonesia, Universitas Negeri Yogyakarta, Universitas Negeri Malang. Pp 26-61.

Karp, G. 2010. Cell Biology. 6th Ed. Singapore: John Wiley and Sons. p 542.

King, A. 1995. Designing Instructional Process to Enhance Critical Thinking A-cross The Curriculum: Inquiring Mind Really Do Want To Know: Using Questioning to TeachCritical Thinking. California: *Teaching of Psichology*. Volume 22. No. 01. Februari 1995.

Lewis, C., R. Perry, and Hurd, J. 2004. Deeper Look at. *Educational Leader-ship*.California.

Lukitasari, M. 2013. Penggunaan Jurnal Belajar Berbasis *Lesson Study* untuk Identifikasi Proses Berpikir dan Pemahaman Konsep Mahasiswa di Perkuliahan Biologi Sel. *Prosiding Seminar Nasional X***.**Biology Education FKIP UNS.

Marhamah, Mimien H.I. Al M, Susilo, H., Ibrohim. 2014. Meningkatkan Ku-alitas Proses Pembelajaran Pada Mata Kuliah Pengetahuan Lingkungan Melalui Kegiatan *Lesson Study.* A Proceeding of *Seminar Nasional Biologi / IPA dan Pembelajarannya.*The Seminar was conducted at Universitas Negeri Malang, 1-2 November 2014. Malang.

Martomidjojo, R., Rustaman, N., Redjeki, S., Rahmat, A. 2011. Pengembangan Model Pebelajaran Biologi Menggunakan "*Concept Attainment Model"* Guna Menikatkan Keterampilan Berpikir Kritis Mahasiswa Calon Guru Biologi. Universitas Pendidkan Indonesia

Paul dan Elder. 2006. *The Miniature Guide to Critical Thinking Concepts and Tools.* 4th Ed. Foundation for Critical Thinking. Available at www.criticalthinking.org. Accessed on 12 September 2016 at 14:35 WIB.

Rusman. 2012. *Model-model Pembelajaran: Mengembangkan Profesionalisme Guru.*2nd Ed.Jakarta: Raja Grafindo Persada.p203.

Schmid, S.L. and Farquhar,M. G., 2010. MeetingReviewthe Palade Sym-posium: Celebrating Cell Biology at Its Best. *MboC* (*Molecular Biology of the Cell*). Vol. 21, July 15, 2010. pp.2367-2370. This article was published online ahead of print in *MboC* (*Molecular Biology of the Cell*) *in Press. (*http://www.molbiolcell.org/cgi/doi/10.1091/mbc.E10–03–0179) on May 26, 2010.© 2010 by The American Society for Cell Biology

Subadi, T. 2013. *Lesson Study sebagai Inovasi Pendidikan*. ISBN 978-602-7522-17-6. Solo: Kafilah. P105.

Suciati, R. 2015. Perbedaan Kemampuan Berpikir Kritis Mahasiswa Antara Model *ProblemBased Learning* Dengan Model Ekspositori Pada Matakuliah Evolusi. *Prosiding Seminar Nasional Pendidikan Biologi 2015, yang diselenggarakan oleh Prodi Pedidikan Biologi FKIP Universitas Muhammadiyah Malang, tema: "Peran Biologi dan*

Pendidikan Biologi dalam Menyiapkan Generasi Unggul dan Berdaya Saing Global", Malang, 21 March 2015.

Vijayaratnam, P. 2009.Cooperative Learning as a Means to Developing Students' Critical and Creative Thinking Skills. *Proceedings* of the 2nd International Conference of Teaching and Learning (ICTL 2009). Malaysia: INTI University College.

Walsh, J.A, and Sattes, B.D. 2011. *ThinkingThrough Quality Questioning: Deepening Student Engagement*. USA: Corwin. P113.

Zane, T. 2013. *Implementing Critical Thinking With Signature Assignments*. Salt Lake Comunity College.

Zukmadini, A.Y. 2014. Problem-Based Learning Melalui *Lesson Study* Untuk Meningkatkan Keterampilan Berpikir Kritis Mahasiswa Biologi. A Proceeding of*Seminar Nasional Biologi / IPA dan Pembelajarannya.*The seminar was conducted at Universtas Negeri Malang, 1-2 November 2014. Malang.

Zulfiani. 2010. Implementation Deductive Inquiry Model to Increase StudentCritical Thinking Skill and Concept Attainment in Genetics. *Proceeding 4thSeminar International of Science Education.* Bandung, 30 October 2010. Universitas Pendidikan Indonesia.

The Theoretical Model of Evaluation Program: Assisting, Developing, and Evaluating Professional Teaching (ADEPT) for School Counselors (Essence, Theoretical, and Implementation)

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Abstract: The success of the program of guidance and counseling services in schools is determined, one of them, by how the counselor to analyze the program services provided through the evaluation results. Therefore, the performance of school counselors in evaluation is indispensable as foundation to assist, develop, and evaluate professional performance. This literature review discussed mostly about ADEPT model (assisting, developing, and evaluating professional teaching) related to evaluation performance of school counselors. From these review, counselor performance evaluation models consists of seven dimensions of job counselors, such as: (1) PD 1: long-range planning, (2) PD 2: short-range planning, (3) PD 3: development and use of assessments, (4) PD 4: providing guidance and counseling services, (5) PD 5: providing consultation services, (6) PD 6: coordinating guidance and counseling services, (7) PD 7: fulfilling professional responsibilities. Through ADEPT, counselors have knowledge about how to improve their skills in evaluation.

Keywords: evaluation program, ADEPT, school counselor

Guidance and Counseling is an integral part of the education system in Indonesia. The existence of guidance and counseling are expected to contribute and share a role in facilitating the development of learners which covers the areas of personal, social, learning, and career. When examined from the urgency of development, in the process lane civilization development of guidance and counseling in Indonesia occurs through a series of processes that are sustainable, this development must be obtained with ease and through decades of development time, such as starting from the stage of pilot (1960), structuring phase (1975), the stage of consolidation (1984), a consolidation phase (1994), the stage of take-off era (2000), the stage of flashbacks (2006), and the last stage of the curriculum of the circuit 2013. Then the process, giving the result of a paradigm shift from the old patterns turn into a new paradigm that is now known pattern with a comprehensive guidance and counseling.

Alternation paradigm changes into a comprehensive guidance and counseling today, is considered the effort of achievement task the development of learners in accordance with lane life lived. Initiated significance of changes in its development, guidance and counseling development (comprehensive) is based on the achievement of the task of development potential development, and the alleviation of problems counselees development tasks are formulated as competency standards that must be achieved counselee, so this approach named also with the guidance and standards-based counseling (Myrick, 2011). If viewed in the content of their contents, scope of the comprehensive guidance and counseling program consists of four components, namely; guidance curriculum, individual planning, responsive services and support systems. Initiated from the old style change is anticipated to have a positive influence on the development of self-learners (counselee).

The question is, how successful implementation of a comprehensive guidance and counseling program in schools? Speaking about the successful implementation of its implementation, the success or failure of a program service is determined by how big the enforceability of the evaluation program, as this is essential and needs to be understood. Implementation services provided program evaluation can provide on achieving success rate of the program will be given. In the role, Sink (2005) expressed his evaluation of guidance and counseling services can help the counselor to determine which services a positive impact on the learners and identify obstacles that interfere with the success of learners, as well as lead counselor in designing service- effective services for learners.

When viewed from the level of implementation of the implementation, evaluation of the role and functions of guidance and counseling program in Indonesia can be said to be effective and give a big hand in optimizing the role of program services at the school, both in the primary school level, the junior high school, as well as senior high school. Several studies in Indonesia by Barus (2010: 153) concluded evaluation model ABKIN (AB: needs assessment, K: construction services, I: the service implementation, N: the value of the service) can be used effectively to build a picture evaluative comprehensive in the form of the profile ministry guidance and counseling in primary school in each class. Another study by Joseph and Fatchurahman (2014) concluded the evaluation of guidance and counseling in State junior high schools of Palangkaraya city at 2013/2014 lesson that includes services to students, to teachers of subjects services, services to principals, as well as services to the parents of learners went very well. Further research by Handaka (2015) concluded program evaluation model guidance and counseling at school counselor at school level in the category top middle good understanding of the evaluation model from the aspects of personnel, programs, and aspects of the results. Based on the results of several studies conducted, showed that the evaluation of the role and functions of guidance and counseling services in schools gives the role a big hand in optimizing the performance of counselors, work programs, and the results of the implementation. Through evaluation of the services provided, can be applied both in the setting of primary school, secondary school, or middle school.

The comparison of Indonesia and America: Learning from America

The development of guidance and counseling in the United States of American has been formed in the period of time ranging in the 20th century, the first appearance of the guidance and counseling program in education in the America was starting in junior and senior high school levels in the 1920s. The development of guidance and counseling which will serve as a breakthrough and progressive movements in the forward movement of the post-world war II, on this breakthrough is a positive influence on the progress of education in America. On the progress of the education sector, there is no doubt that the United States of America serve as the center of education by developing countries, especially Indonesia. This can be seen in 1950-1960, the government of Indonesia held a study visit to the country associated with the education sector. For these purposes of are comparison between the education system in Indonesia with the Americans.

Implementation of the guidance and counseling program in the American state basically considering the success rate of the services provided. Therefore, evaluation of programs and services became the main focus of concern. It can be seen as the type and form of program evaluation guidance and counseling services in the United States of America has to offer including: comprehensive guidance and counseling program, evaluation accountability bridge program. ADEPT (Assisting Developing and Evaluating Professional Teaching), Account-ability Bridge Program Michigan Comprehensive Guidance and Counseling Program

(MCGCP), The South Carolina Guidance and Counseling Program, and many others. Kinds and forms of evaluation of programs offered, is a form of destination and answer where the role of guidance and counseling in schools. Gysbers and Henderson (quoted from Sink, 2005: 179) confirms that the evaluation of the mentoring program to answer two questions, namely whether the school has a comprehensive guidance and counseling program in writing?, whether written program that truly implemented in the school counseling program evaluation?, aims to explain the program to the written guidance accurately (valid) and proved with documents that there truly has been accomplished.

Viewed from various forms of program evaluation guidance and counseling services are implemented in the American state, felt that it could be applied in the country of Indonesia. To be the basis of this repulsion is considered that the development of guidance and counseling services in Indonesia is basically oriented on the United States. It is possible that: there is a tendency suitability of the evaluation program guidance and counseling services in the United States can be applied in Indonesia. By looking at the assumption of these considerations, one model of program evaluation services that can be implemented is a model of ADEPT, it is on the basic considerations that: in this model can help the performance of school counselors in optimizing the dimensions of their performance, develop self-efficacy, and increasing the professionalism of the performance themselves.

DISCUSSION

What is the Program Evaluation Model ADEPT?

School counselor are performance of evaluation model of ADEPT (assisting developing and evaluating professional teaching) fundamentally on some reviews actually already familiar in the field of guidance and counseling services. This type of evaluation models were initiated on the need for school counselors to determine the enforceability of the service program that has been given. If interpret its essence, the school counselor performance evaluation model of ADEPT is an attempt to assist, enhance, develop service programs, and evaluate the teaching professionally. While reviewing of its significance, this evaluation model (ADEPT) includes three components, namely: assisting meant he directs/help. Developing been considered as a means of development. And evaluating teaching professional, meant as a professional service evaluation.

Based on the role and functions, performance evaluations, school counselor model of ADEPT is acting as an important component that helps counselors in giving directions quality assurance services in any given program, while the function of this model can provide business development assessment of the performance of services counselors, as well as provide evaluation services professional counselors. With interpret the role and function, counseling program evaluation refers to the ongoing use of evaluation principles by counselors to assess and improve the effectiveness and impact of Reviews their programs and services (Astramovich, Coker, and Hoskins, 2005: 49). On efforts in implementation, should be based on performance capability counselor professionalism, as this is necessary as a foundation with the essential requirements of the evaluation will be provided. The basic requirements that must be met by a school counselor that includes: first, have the educational background of guidance and counseling. Second was a qualified educator in the field of guidance and counseling. Thirdly, has the professionalism to work in the field of guidance and counseling. Fourth, have professional work experience as a school counselor, fifth competence in the evaluation and supervision of guidance and counseling.

The Basic Model of the ADEPT Foundation

As a basic foundation of use of the performance evaluation of ADEPT model school counselor, the key steps that need to be considered are the school counselor conformity of the program. Has been described in the American Educational Research Association (AERA-APA, 1999: 163) evaluation program is the set of procedures used to the make judgments about the client's need for a program, the way it is implemented, its effectiveness, and its value. Referring to the study of the meaning contained on implementation purposes, let school counselors understand and have a strong foundation as the values of professionalism self-evaluation every program does.

In order to have a strong grounding in the evaluation process of performance evaluation models school counselor ADEPT, the necessary basic foundation was based on implementation evaluation program. Primary consideration as the basic foundation of the evaluation model refers to the foundation of a comprehensive, these considerations as described by ASCA (2005) outlines that the foundation is a component in the guidance and counseling program comprehensively that leads to what the program and focused on the knowledge and skills that must be acquired by students. Evaluation formulated comprehensive guidance and counseling program includes program evaluation, implementation, and results (Gysbers and Henderson, 2006). Regards with based as a step footing, for the consideration and evaluation of the performance evaluation of major foothold counselor refers ADEPT models and is based on a comprehensive guidance and counseling program.

The Components of the Evaluation ADEPT Model

On the contents of the performance evaluation component model school counselor ADEPT, frame the contents of this evaluation model leads to the performance dimension of school counselors. Tenenbaum (2006) describes, as its name ADEPT system basically towards the performance of educators through three main processes, include: assisting, developing, and evaluating. In these processes are interrelated, and all of them can be formed at any stage of a sustainable career. However, the emphasis on every process is different according to the needs and level of accuracy and career educators.

From lane descriptions by the Tenenbaum, it seems clear that the focus of lanes on the performance evaluation model school counselor ADEPT includes a component assisting, developing, and evaluating. Component performance evaluation contents ADEPT model school counselor refers to the formal evaluation guidelines according to the South Carolinas's ADEPT (2003); ASCA (2005) which describes the model consists of seven components ADEPT contents. Those components include:

The first, the purpose and the partition, the purpose of the formal evaluation model of ADEPT by South Carolina's system consists of: aid, development and evaluation of teaching professionals capacity of school counselor.

The second, the performance dimension, the dimension of this performance includes: PD 1: long-term planning, PD 2: short-term planning activities of guidance and counseling, PD 3: development and use of assessment, PD 4: provide guidance and counseling services, PD 5: PD 6: coordinator of guidance and counseling services, PD 7: fulfill professional responsibilities.

The thirdly, the evaluation team is each school counselors have a team evaluation with provisions that have special expertise ADEPT evaluation. The fourth, orientation, school counselors are scheduled to be evaluated first formal, or orientation in a comprehensive evaluation process before the evaluation process begins. This orientation includes a written

explanation, spoken on the guidelines for the evaluation of the performance of ADEPT school counselor, criteria for successful fulfillment of the evaluation, and the use of evaluation results.

The fifth, the source of evidence required and the schedule for data collection, this step is done so that a school counselor can document all the evidence in writing that include: long-term plan (dimensions of performance 1), interviews (performance dimensions 2, 3, and 6), observations (dimensions of performance 4), "reflection" to the school guidance counselor (dimensions of performance 4), surveying consultancy (dimensions of performance 5), professional self-report and description (dimensions of performance 7).

The sixth, documentation, documentation includes specific evidence regarding the performance of the school guidance counselor with regard to each of the seven dimension of performance, and a performance summary of overall school guidance counselor.

The seventh, the decision of the evaluation and conferences, school counselors must participate in the process of consensus-based to determine the ratings of evaluation, the evaluation team must reach agreement on each of the seven dimensions of performance regarding whether it can meet the standards or does not meet the standards, the school counselor receives an overall assessment to meet the criteria formal evaluations, counselors must meet the standard of competence in all seven dimensions of performance at the time of the final evaluation and requirements regarding the conference (meeting) evaluation schedules, and follow the appropriate rules set out in ADEPT.

System Planning: Dimensions Performance Model of ADEPT

Process of planning system components, to achieve high success, school counselors need to understand the aspects of performance in self-dimensional (personnel) as a component of planning. Component performance dimensions include: content standards, criteria and descriptors personnel performance, therefore, considered to be essential that in order to produce a program evaluation services that either need to be considered thoroughly and systematically. Considerations that can be taken is to consider the effectiveness of school counselors in the use of standards, criteria, and personnel performance descriptors are derived directly from the framework of a comprehensive guidance and counseling program (Gysbers & Henderson, 2006).

The main frame of the system of performance evaluation planning counselor ADEPT model of this by adapting the dimensions of the performance of a school counselor at South Carolinas's ADEPT (2003); ASCA (2005), in the formulation of the performance evaluation counselor model of ADEPT is composed of seven Performance Dimensions (PDs), those components include: The first is PD 1, long-range planning, school counselors to develop a long term plan through need assessment based on standard components of the program include: curriculum guidance , individual planning, responsive services and support systems. The second is PD 2, short-range planning-guidance and counseling activities, school counselors to develop short-term goals on the suitability of activities, balancing activities, resources, schedule, and long-term plan that has been prepared can be fulfilled by maximum. The third is PD 3, development and use of assessments, school counselors to plan and evaluate programs on an ongoing basis and maintain appropriate documentation program accountability. The fourth is the PD 4, providing guidance and counseling services, school counselors provide classroom guidance activities and services throughout the school as well as group counseling and individual counseling that supports the development of students in the aspect of personal-social, academic, and career. The fifth is the PD 5, providing consultation services, school counselors provide consultation services directly and indirectly to convey information and appropriate assistance to parents / guardians, students, and colleagues. The sixth is the PD 6,

coordinating guidance and counseling services, school counselors coordinate service guidance and counseling program with school and community services, programs and / or agencies. The seventh is the PD 7, fulfilling professional responsibilities, school counselors consistently behaved in accordance with professional ethics and participate actively in developing the personal professionalism on an ongoing basis.

System Implementation: Evaluation formal ADEPT for School Counselor

Next is the implementation of the system components, implementation or delivery of performance evaluation model ADEPT school counselors should be implemented fully and integrity (comprehensive), but it is expected the school counselor may regard a framework based on the dimensions of performance. This delivery system in the implementation of school counselors should be able to know and understand each domain dimension personnel performance. In this purpose, personnel performance evaluation or counselor is a procedure used to assess the effectiveness of school counselors' work within the framework of a comprehensive guidance and counseling program (Gysbers and Henderson, 2006). In the implementation of the delivery system, school counselors can evaluate the performance of the model school counselors South Carolinas's ADEPT (2003) contained in the image below:

Table 1: Formal Evaluation At-a-Glance: ADEPT for School Guidance Counselors (Quoted from ADEPT, 2003)

School Guidance Counselor	Evaluator 1 (Certified Counselor)	Evaluator 2 (supervisor) Administrator	Administrator/ Supervisor
Complete the LRP (PD 1)			
Begin distributing the "Consultation Survey" forms (PD 5)	Review the LRP; complete the documentation (PD 1)	Review the LRP; complete the documentation (PD 1)	
Participate in interviews (PDs 2, 3, 6)	Conduct the counseling interview; complete the documentation (PDs 2, 3, 6)	Conduct the guidance interview; complete the documentation (PDs 2, 3, 6)	
Complete the counseling or guidance "Reflection" following each observation (PD 4).	Conduct the counseling observation	Conduct the guidance observation	
	Review the "Counseling Reflection"	Review the "Guidance Reflection"	
Analyze the results of "Consultation Survey"; complete the "Consultation Summary Report" (PD 5).	Complete the documentation (PD 4)	Complete the documentation (PD 4)	
Complete the "Professional Self-Report" (PD 7).	Review the "Consultation Summary Report"; complete the documentation (PD 5)	Review the "Consultation Summary Report"; complete the documentation (PD 5)	Complete the "Professional Performance Description" (PD 7)
	Review the "Professional Self-Report"	Review the "Professional Self-Report"	
	Review the "Professional	Review the "Professional Performance	

	Performance Description"; complete the documentation (PD 7)	Description"; complete the documentation (PD 7)	
	Hold the consensus meeting; complete the consensus documentation and "Evaluation Summary"		
Participate in the evaluation conference to discuss evaluation results			

Note: As a special note for note, in the process of evaluating the performance of a school counselor model of ADEPT, as shown in the figure above, the execution procedures with marked red is not mandatory to do, the area in red is the operational execution during the second semester, and adjust at the discretion of the evaluation team, and following the previous evaluation results at school counselors in every dimension of each performance.

Systems Management: Four Components of the Comprehensive School Counseling Program

Next is a management system, in the use of performance evaluation model ADEPT school counselors, school counselors must adjust the components of a comprehensive counseling service program. Components of the program are consists of four types of fields, including: guidance curriculum, individual planning, responsive services and support systems. In step management, South Carolinas's ADEPT (2003); ASCA (2005) formulate four program components of the comprehensive school counseling, as follows:

The first component is the curriculum guidance, is area of developments presented in a structured, systematic through classes and small group activities. The purpose of this component namely: increasing student awareness, skills development, and application of skills. Then implementation strategies include; class activities and group activities outside class. Area discussed included: the development of personal / social, academic development, and career development. While the dimensions of this performance consists of PD 1, PD 2, PD 3, PD 4, PD 5.

The second component is the individual planning, an activity that is intended to help students plan, observe, and manage their own learning and personal development and their careers. The purpose of this component namely: Planning students and goal setting. Areas covered include: planning personal and social, academic planning, career planning. Then implementation strategies include: individual assessments, individual advisory and placement. While the dimensions of this performance consists of PD 1, PD 2, PD 3, PD 4, PD 5.

The third component is a responsive service, an activity that aims to meet the needs and interests of students with as soon as possible.The purpose of this component such as prevention and intervention. Areas covered include: academic attention, concern related to school, personal attention. Then their implementation strategy includes: consulting, personal counseling, crisis counseling, and referral. While the dimensions of this performance consists of PD 1, PD 2, PD 3, PD 4, PD 5, 6 PD.

The fourth component is the support system, an activity to manage the build, maintain, and enhance the whole program. The purposes of this component such as acceptance program, and support. Areas covered include: developing tutoring programs, parent education, consulting teachers and administrators, staff development for educators, school improvement planning, professional development counselor, research and publishing, community outreach, public relations, budgeting and financing. Then implementation strategies include: program management, consulting, community outreach, staff and community relations, research and

development, professional development. While the dimensions of this performance are consist of PD 1, PD 5, 6 PD, and PD 7.

Ethical Standards for School Counselors

Every process of evaluating the performance of the services performed school counselors, steps that need to be considered are the norms of ethical standards. Performance evaluation process school counselor services should adhere to the principles of ethical behavior, to the ethical standards are used as a form of self-responsibility as a professional performance. On the nature of the meaning, ASCA (2010) ethical standards for school counselors developed as an ethical responsibility owned by professional school counseling, destination ethical standards are to: (1) as a guide for the practice of all counselors professional, (2) as a starting measure for assessment or evaluation of the responsibilities of the counselee counselors, parents, colleagues and professional peers, schools, communities and ourselves and the profession counseling, (3) inform served by a school counselor that the practice counselor is a professional help. If you compare the contents of the rate and direction, there is a similarity of meaning of the ethical standards of the code of conduct of professional organizations ABKIN Indonesia. Society's code of Professional Guidance and Counseling Indonesia aims to: (1) provides guidance on the behavior of character and professional for the members of the organization in providing guidance and counseling services, (2) assist members of the organization in building activities of a professional service, (3) support the organization's mission profession, namely the Association of Guidance and Counseling Indonesia (ABKIN), (4) the basis and direction in dealing with and solving the problems that come from and about the members of the association, (5) protecting members of the association and the target service or client (ABKIN, 2011: 2).

By integrating the principles of ethical standards as the code of conduct the evaluation of the performance of school counselor model ADEPT, ethical standards as the professional responsibilities that need to be understood in a school counselor evaluation process consists of six types, South Carolinas's ADEPT (2003); ASCA (2005) describes the coverage ethical standards for school counselors include: First is the responsibility of the student, include: confidentiality, planning counseling, dual relationships, referrals are appropriate, plan counseling, dual relationships, referrals are appropriate, teamwork, danger to self or others, student records, counseling plans, dual relationship, appropriate referral, teamwork, danger to self or others, student records, evaluation, assessment and interpretation, computer technology, and peer-helper. Second program is the responsibility accountable to parents, include: the rights and responsibilities of parents, and parents and confidentiality. Third is responsibility to colleagues and professional associations, including: professional relationships, and sharing information with other professional. Fourth is the responsibility of the school and community, including: the responsibility of the school, and responsibility in the community. Fifth responsibility yourself, include: professional competence, multicultural skills. The sixth is the responsibility towards profession, include: professionalism, and contribution to the profession.

Accountability

As the last component in the performance evaluation model school counselor ADEPT is accountability, the roles and functions of accountability serves to determine interconection (outcome) evaluation of the performance of a school counselor that has been done. Myrick (Diltz and Kimberly, 2010) describes accountability in response to actions taken in setting goals, implementation procedures, and the use of proceeds for improvement pprograms. From ADEPT used a model of this, school counselors obtained: (1) obtain feedback on the results dimensional performance, (2) the process of the evaluation can be seen success rate, (3) a school counselor can identify deficiencies dimensions of performance, (4) evaluation planning follow-

up activities on a regular basis, (5) collaborative with the evaluation team to the achievement of the performance evaluation results in accordance with the needs and the planned objectives. With the use of performance evaluation model of ADEPT's school counselor, school counselors can find out the results of the evaluation are given, and the follow-up efforts.

CONCLUSION

With displaying of the theoretical models of evaluation program: assisting, developing, and Evaluating Professional Teaching (ADEPT) for school counselors (essence, theoretical, and implementation), the conclusion that can be drawn is in business of enhancing the performance dimension of performance evaluation counselor, one of a kind evaluation of programs offered is the counselor performance evaluation model of ADEPT. Where the model ADEPT This refers to the performance of the dimensions of the performance of counselors consisting of: PD 1: long-range planning, PD 2: short-range planning-guidance and counseling activities, PD 3: development and use of assessments, PD 4: providing guidance and counseling services, PD 5: providing consultation services, PD 6: coordinating guidance and counseling services, PD 7: fulfilling professional responsibilities. As a basic consideration of this assumption is considered that, ADEPT evaluation model from America directly proportional to Indonesia, where the development of guidance and counseling services in Indonesia is basically oriented on the United States. For it to be mixed appropriately and attention based on the dimensions of Performance implementation performance, does not allow that the ADEPT program evaluation models can be implemented in Indonesia.

REFERENCES

Asosiasi Bimbingan dan Konseling Indonesia (ABKIN). 2011. *Kode Etik Profesi Bimbingan Dan Konseling Indonesia*. Semarang: PB-ABKIN.

American Educational Research Association. 1999. *Standards for Educational and Psychological Testing*. Washington: AERA APA.

ADEPT. 2003. *ADEPT for school Guidance Counselors Foramal Evaluation Guidelines*. South Carolina: South Carolinas's ADEPT

American School Counselor Association (ASCA). 2005. *The ASCA National Model: A Frame Work for School Counseling Program. (Second Edition)*. Alexandria, VA: Author.

American School Counselor Association (ASCA). 2010. *Ethical Standards for School Counselors*. (online), (http://schoolcounselor.org/magazine/blogs/september-october-2010/ethical-standards-for-school-counselors-revised).

Astramovich, R.L., Coker, J.K., dan Hoskins, W.J. 2005. Training School Counselors in Program Evaluation. *ProfessionalSchool Counseling,* 9 (1) 49-54.

Barus, G. 2010. PengembanganModel Evaluasi Pelayanan Bimbingandan Konseling di Sekolah Dasar. *Jurnal Penelitian*, Vol. 14, No. 1.

Diltz, D.M.P. dan Kimberly, L.M. 2010. Exploraton of Accountability Practice of School Counselor: A National Study. *Journal of professional Counseling, Practice, Theory & Research*. 38, (52): 2

Gysbers, N.C. 2006. Comprehensive Guidance and Counseling Programs: The Evolution of Accountability. *ProfessionalSchool Counseling,* 8, (1): 1-14.

Gysbers, N.C. & Henderson, P. 2006. *Developing & Managing: Your School Guidance and Counseling Program Fourth Edition*. United States: American Counseling Association.

Handaka, I.B. 2015. Studi Deskriptif Tentang Model Evaluasi Pelaksanaan Program Bimbingan Dan Konseling di Sma Negeri di Kabupaten Bantul. *Jurnal Konseling GUSJIGANG*. Vol. 1 No. 2.

Myrick, R.D. 2011. *Development Guidance and Counseling: A Practical Approach. (Fifth Edition)*. Minneapolis. Educational Media Corporation.

Rex, J. 2008. *The South Carolina Comprehensive Developmental Guidance and Counseling Program Model: A Guide for School Counseling Programs, Pre-kindergarten Through Grade Twelve*. Columbia: South Carolina Department of Education.

Sink, A.C. 2005. *Contemporary School Counseling: Theory, Research, and Practice.* Boston: Lahaska Press Houghton Mifflin.

Tenenbaum, I.M. 2006. *ADEPT System Guidelines:Issued by the South Carolina Department of Education*.State Superintendent of Education

Yusuf, T. dan Fatchurahman, M. 2014. Evaluasi Pelaksanaan Program Bimbingan dan Konseling padaSekolah Menengah Pertama di Kota Palangka Raya. *Pedagogik Jurnal Pendidikan, Oktober 2014,* Volume 9 Nomor 2, 90 - 101.

The Role of Picture Series in Improving Students' Writing Ability

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Abstract: Writing plays important roles in English language teaching and learning. However, writing is considered as a difficult skill to be learnt. A writing product should fulfill some criteria, in terms of content, organization, vocabulary, grammar, and mechanics in order to be a good one. Instructional media can help the teachers in teaching writing. This article aims to review the role of picture series, as one of the instructional media, in improving students' writing ability. Picture series are recommended for teaching writing since they are interesting and show the chronological order of a text. This article covers the theory, regulation, research, and practice in teaching writing. It also provides some examples of various media in teaching writing, highlights the role of using picture series in improving students' ability, and shows an example of procedure of how to implement picture series. It is expected that this article could provide a guideline of teaching writing by using picture series and propose some suggestions for future practice and research.

Keywords**:** picture series, improve, writing ability

Writing, in addition to listening, speaking, and reading, is one of language skills that plays important roles in English language teaching and learning. It helps the students learn a second language, in this case English. The activity to communicate or deliver our ideas in learning English with others can be done through a written form. Moreover, by using written English, students can deliver messages to the readers across places and times (Brown, 2007; Harmer 2004). Written words keep around for some years, sometimes for hundreds or thousands of years.

The importance of writing can be in our daily life. According to Nunan (1991), written language serves a range of functions in everyday life such as for action, information, and entertainment. For example, it can be used in public signs, product labels, manuals, magazines, books, and film subtitles. The need of English in written communication has developed significantly in recent years.

Although writing is very important for written communication, among the four language skills, writing is claimed as the most difficult skill. It is considered as the most difficult skill because of its complex process (Hamp-Lyons & Heasley, 1987, cited in Nunan, 1991; Harmer, 2004; Richards & Renandya, 2002). The process of writing is recursive and the product should fulfill some criteria of a good writing product. The process of writing is not linear. It means that the writers not only should plan, draft, and edit, but also re-plan, re-draft, and re-edit before they produce final version of their writing product. After that, the writing product should fulfill some criteria, such as organization, content, grammar, vocabulary, and mechanics (Brown, 2004).

In line with the claim that writing is difficult, Pertiwi (2016) states that students have some difficulties in writing. They said that writing is the most difficult skill in learning English. Those difficulties are poor organization, unstructured content, incorrect grammar, word choice, and mechanics, such as spelling, capitalization, and punctuation. So, teaching writing is not an easy matter, especially when the students' English competence is not well developed. Thus, it demands the care and attention of English teachers.

Regarding the difficulties, English teachers should pay attention to components and characteristics of teaching in order to make the teaching-learning process conducted well. Those components are objectives, strategies, environment and instructional media (Smaldino, Lowther & Russel, 2009). All of them may become the problems for teachers in teaching writing. Among these, instructional media become the main focus of attention in this article.

This article aims to review the role of picture series, as one of instructional media, in improving students' writing ability. To achieve this aim, it begins with the presentation of the theory, regulation, research, and practice in teaching writing. Hereafter, it gives some examples of various media in teaching writing and highlights the role of using picture series in improving students' ability. Finally, this article proposes a procedure of how to teach writing using picture series and offers some suggestions for future practice and research.

TEACHING WRITING: THEORY AND REGULATION

As mentioned before, writing is a complex process. That is why, writing is frequently accepted as the last language skill to be mastered. In the teaching writing area, there are some views about writing itself. Writing can be seen as product, process, or social activity. These views may influence the teachers' practice in teaching writing.

First, writing is viewed as a productive skill. It is considered as a productive skill because its activity refers to the production of written texts. In line with this statement, Harmer (2004) states that writing is an activity that creates ideas or opinion in written form. The most important thing from this view is the students' product of writing.

Writing is also viewed as a process. The students need some processes to produce a good written text. Brown (2000) states the process of composing written text as the result of thinking, drafting, and revising. Firstly, students have to think of the topic or theme that they are going to write. Next, they can generate the ideas by making a draft for their writing and finally students can organize and make the revision for the final product. According to Harmer (2004), writing should be taught through cyclical process, namely planning, drafting, editing, and final version. The process of writing is not linear, but rather recursive.

At last, writing can be viewed as a social activity. This view sees communicative competence as involving the mastery of different text types (Richards, 2006). Therefore, the teaching of writing should be able to create opportunities for students to understand and write various kinds of text for the sake of purposeful communication. It is known as genre-based approach. Agustien et al. (2004) provides the steps of this approach. Those steps are *Building Knowledge of the Field (BKoF), Modeling of the Text (MoT), Joint Construction of the Text (JCoT),* and *Independent Construction of the Text (ICoT).*

Teachers have an important role in teaching writing. Harmer (2001) points out three roles of teacher in teaching writing, namely: motivator, resource, and feedback provider. Teachers should create the right conditions for generating ideas and persuade them to get involved in writing activity. Additionally, teachers should be ready to supply information and language where necessary. Those roles demand special care of the teachers in teaching writing.

The importance role of writing in English language teaching and learning, especially for Junior High School, can be seen in the curriculum. Nowadays, the education system in Indonesia implements two curricula. They are 2006 School Based Curriculum and 2013 Curriculum. According to 2006 School Based Curriculum for Junior High School, it is stated that the teaching of English involves the four language skills, namely: listening, speaking, reading, and writing which are taught in an integrated manner to achieve functional literacy level (Depdiknas, 2006). The students should able to comprehend and produce not only short functional texts, such as announcement, invitation, and advertisement; but also essays in the

form of procedure, descriptive, recount, narrative, and report texts.

In addition, based on 2013 Curriculum, it is stated that the objective of teaching English for Junior High School is that the students should be able to identify social function, generic structure, and linguistic feature of the text. They are expected to communicate interpersonally, transactionally, and functionally about their selves and their environment in their daily life. They should able to produce short spoken and written text, too (Kemdikbud, 2016). It means that writing still has important role in English teaching and learning in this curriculum. In both of the curricula, writing is taught from the first until the last grade.

RESEARCH AND PRACTICE IN TEACHING WRITING

There are some research in teaching writing related to the use of picture series, both in Indonesia and abroad. They are, for example: Asrifan (2015); Guitterez, Puello, and Galvis (2015); Krčelić, & Matijević (2015); Desitawardhani (2014); Mudassir (2014); Nirmala (2013); Sudaryo, (2013); and Hasanah (2009). They have revealed in their study that picture series are beneficial to improve students' writing ability.

Most of them said that in the practice of teaching writing, English teachers usually focus on the grammatical aspect and not so much on the product of writing. This means that some English teachers only occasionally practice the teaching of writing, starting by only explaining the topic to the students are going to write about while the students listen the explanations. Then the students are asked to write a short composition in certain time allotted without using any model. The teacher waits for the students' product without giving additional guidance. Finally, the students submit their work to the teacher. It makes the teaching writing look so boring and intimidating.

To solve the problem in teaching writing, Desitawardhani (2014), Sudaryo (2013) and Hasanah (2009) conducted action research by using picture series to improve students' writing ability. From their study, it is revealed that picture series are useful to improve students writing ability. In line with them, Asrifan (2015) and Mudassir (2014) conducted experimental research by using picture series in teaching writing. They showed that picture series are effective in teaching writing. Additionally, in the other countries, Guitterez et al. (2015); Krčelić and Matijević (2015); and Nirmala (2013) also did the same research and confirmed the effectiveness of using picture series.

VARIOUS MEDIA IN TEACHING

As mentioned above, instructional media are components of teaching which have great influence in improving students' writing ability. Due to media, the writing teaching-learning process will have more variation and will be exciting. Hamalik (1985) defines media as any tools, methods, and techniques used to make the communication and interaction between teacher and students more effective in the teaching-learning process. In addition, students will be more interested and enthusiastic in joining the teaching-learning process.

There are many kinds of instructional media that can be used in teaching and learning process. According to Samjaya (2012), there are three types of media, namely audio (radio, tape recorder, cassette), visual (picture, photograph, drawing), and audiovisual (video). In line with him, Harmer (2007) proposes music, pictures, and films as excellent stimuli for writing. Teachers can create some writing activities by using those media.

Visual media considered as the most effective way in learning since students learn most through the sense of sight, then through the sense of hearing, and the remainder via the senses of smell, touch, and taste (Chee & Wong, 2003). Pictures as the visual media are very useful

for teaching writing. There are a lot of choice of pictures that can be used as aid in teaching writing, such as one picture, picture series, diagrams, tables, maps, and charts (Raimes, 1983).

The use of pictures as visual media in the teaching learning process is intended to make teaching learning more effective and sufficient so that the students' writing ability can be improved. Wright (1989) states that pictures make a particularly powerful contribution to both the content and the process of language learning. He also suggests that picture can often be used to promote productive skill like writing. He adds that pictures can motivate the students, can be described in an objective way, can cue responses to questions, and can provide information. Pictures also contribute to the context in which the language is being used. Additionally, Raimes (1983) states that writing teachers can find valuable resource from pictures since they provide a shared experience in the classroom, a need for common language forms to use in the classroom, a variety of tasks, and a focus of interest for students.

Harmer (2004) proposes some ways to have pictures as media to teach writing. They are describing pictures, writing postcards, story tasks and so on. Pictures bring the outside world into the classroom in a vividly concrete way. Teachers can get the pictures whether drawn, taken from books, newspaper and magazines, internet, or photographs. Pictures can be in the form of flashcards, large wall pictures, cue cards, photographs, or illustration (Harmer, 2001). Some teachers also use projected slides, images from an overhead projector, or projected computer images. Teachers also draw pictures on the board to help with explanation and language work.

Additionally, teachers should follow some considerations in using picture in order to make their classroom activity efficient in achieving its purpose. Wright (1989) mentions those considerations, namely: (1) it should be easy to prepare; (2) it should be easy to organize in the classroom; (3) it should be interesting to the students and the teachers; (4) it should be meaningful and authentic; and (5) the activity must give rise to a sufficient amount of language in order to justify its conclusion in the language lesson.

THE ROLE OF PICTURE SERIES IN TEACHING WRITING

Pictures are two-dimensional visual representation or person, place, or things. They can be painted or drawn, colored or black and white. Yunus (1981) classifies pictures into three types such as composite picture, picture series and individual picture. He describes picture series as numbers of linked pictures which form series of sequences in order tell a sequence of events or a story. The use of picture series can help the students to write types of text that require sequences like procedure, recount, and narrative. Wright (1989) argues that picture series are pictures which show some actions or events in a chronological order. It can be used as one of the stimulus in the learning activity to the students. When picture series are used as media of teaching writing, it can help the students in generate the idea in terms of deciding the theme and the information they want to write. The pictures must be simple and unambiguous. The teachers can help the students by providing some guided questions in order to stimulate a sequence of sentences (Brown, 2004).

There are some examples of picture series that can be used in the classroom to teach writing. Those picture series are applicable to teach some genre which need chronological order, such as procedure, recount, and narrative text. One example of them, picture series of narrative text, is shown in Figure 1.

Figure 1. Picture Series of Narrative Text (Goldilocks and the Three Bears, 2016)

The above picture series tell about the story of "Goldilocks and the Three Bears". It is a narrative text. From these picture series, the students can be guided to learn the story through its generic structure in terms of orientation (picture 1), complication (picture 2-6), and resolution (picture 7). The students can recognize the participants and place of the story, the problems happened, and the end of the story by analyzing the pictures one by one. The final result is that the students can write the story of "Goldilocks and the Three Bears".

There are some alternative of picture series that can be used in the classroom. These picture series can be colored or black and white. They can be drawn by the teachers or adopted from textbooks, magazines, newspapers, photographs, and the other media. The number of pictures can be in one series can be varied. A sequence of three to six pictures can provide a suitable stimulus for written production (Brown, 2004). Teachers can modify the picture series based on their needs in the classroom. It depends on the complexity of the text. For instance, it depends on the generic structure of the text.

There are some advantages of the use of picture series. The first advantage is that sequential pictures help the students to generate ideas about what they are going to write. Most of the students are confused about what they will write first. Picture series provide stimulus for written production. Those pictures give information of which event comes first and which one comes next. Meanwhile, the second one is that picture series can draw students' attention out to be involved in writing process. At last, picture series can increase students' vocabulary. Pictures series are suitable media to introduce new English vocabulary to the students. Hopefully, it will improve students' writing ability.

PROCEDURE OF USING PICTURE SERIES IN TEACHING WRITING

There are some procedure in implementing picture series to teach writing. It depends on the teachers' strategy in conducting writing teaching-learning process. One of the them is by implementing Genre-Based Approach. This approach is chosen since this approach views writing as a social activity (Badger & White, 2000). It is also relevant with our curricula which are developed on the principles of Communicative Language Teaching (CLT). It requires the language competence in which the students should recognize the purpose of the text, generic structure, and language feature of the text. There is habit formation in this technique (building knowledge, modeling, construction and self-construction).

Here is an example of procedure of how to implement picture series in teaching writing a recount text through Genre-Based Approach.

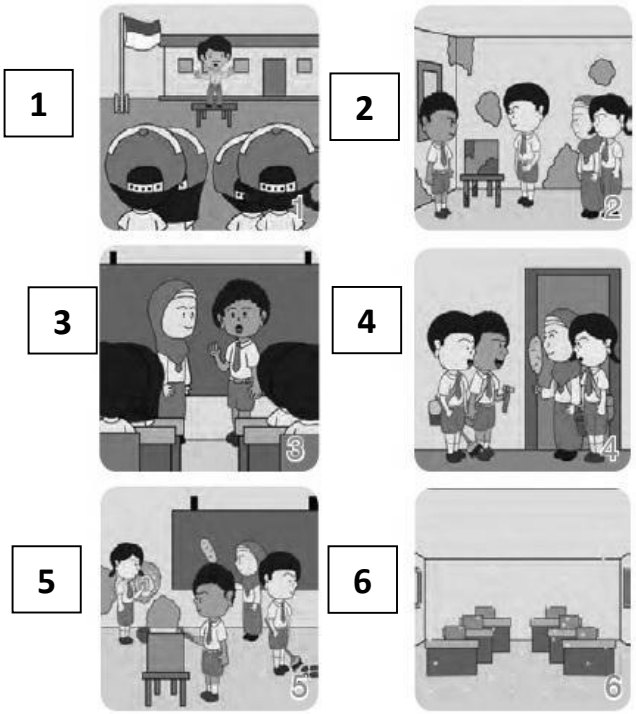

Figure 2. Picture Series of Recount Text (Kemdikbud, 2014)

The first step is Building Knowledge of the Field (BKoF). In this stage, the teacher tries to activate students' prior knowledge of the text by doing brainstorming. Here, teacher asks some questions based on the topic which related to the text. Furthermore, teacher gives series of picture and asks some questions based on it. For example by asking about the characters and setting of the text based on the pictures. These six picture tell the students' experience when they won the First Prize of the Classroom Competition. These pictures explain the orientation, series of events, and orientation of the text.

The second step is Modeling of the Text (MoT). In this stage, teacher tries to develop students' understanding of the text by giving an example of intended text. Here, teacher guides the students to analyze the text structure by using scaffold or guided questions based on the picture series. He/ she also helps the students in identifying the language features used in the text and in finding new or difficult vocabulary.

Joint Construction of the Text (JCoT) is the next step. In this third stage, teacher tries to develop students' writing skill to write a text in pairs or in groups. The teacher distributes a set of pictures to each group and ask them to write a text based on those pictures. During the process, the teacher giving feedback to the students writing.

The last stage is Independent Construction of the Text (ICoT). The fourth stage leads students to have independent activities. They are asked to write a text that is being studied independently. Here, teacher tries to develop students' writing skill to produce the text individually without collaborating with their pairs or groups.

It is possible for teachers to implement the other method or strategy in teaching writing by using picture series. Teachers can implement it through the other method such as product approach, process approach, or even scientific approach. In scientific approach, in particular, picture series can be presented in early stage, too, namely observing and questioning steps. Teachers can provides exposure by using picture series in generating students' ideas. Then the

activities will be continued with collecting information, associating, and communicating.

CONCLUSIONS

Writing plays important roles in English language teaching and learning. However, it is claimed as the most difficult skill to be mastered. This difficulty is caused by the complexity of writing process. Moreover, the product of writing should have good organization, sufficient content, correct grammar, various vocabulary, and appropriate mechanics. In order to solve this complexity, teachers should provide appropriate instructional media. Picture series as one of instructional media is beneficial to improve students' writing ability. Picture series are chosen since they are interesting and contain chronological order in sequence that ease the students to generate and organize their ideas in written form. Therefore, teachers are suggested to be more creative in choosing and creating interesting media in order to success the teaching of writing. They are expected to conduct research to explore more about the use of picture series in improving students' writing ability.

REFERENCES:

Agustien, H.I.R., Anugerahwati, M., & Wachidah, S. 2004. *Materi Pelatihan Terintegrasi Bahasa Inggris*. Jakarta: Depdiknas.

Asrifan, A. 2015. The Use of Pictures Story in Improving Students' Ability to Write Narrative Composition. *International Journal of Language and Linguistics*. 3(4), 244-251.

Badger, R. & White, G. 2000. A Process Genre Approach to Teach Writing. *ELT Journal.* 54(2), 153-160.

Brown, H.D. 2000. *Principles of Language Learning and Teaching* (4th edition). New York: Pearson Education.

Brown, H.D. 2004. *Language Assessment: Principles and Classroom Practices.* New York: Pearson Education.

Brown, H.D. 2007. *Teaching by Principles: An Interactive Approach to Language Pedagogy* (3rd edition). New York: Pearson Longman.

Chee, T.S. & Wong, A.F.L. 2003. *Teaching and Learning with Technology: An Asia -Pacific Perspective.* Prentice Hall: Pearson Education Asia.

Depdiknas. 2006. *Standar Kompetensi Bahasa Inggris SMP*. Jakarta: Departemen Pendidikan Nasional.

Desitawardhani, N. 2014. *Improving Students' Skills of Writing Explanation Texts through Picture Series for the Grade XII Students of SMA Negeri 2 Sleman in the Academic Year of 2013/ 2014.* Thesis. Yogyakarta: State University of Yogyakarta (Online), (https://eprints.uny.ac.id/), retreived on July 4, 2016.

Goldilocks and the Three Bear. 2016. August. Retrieved from http://learnenglishkids.britishcouncil.org/en/short-stories/goldilocks-and-the-three-bears/

Guitterez, K.G.C., Puello, M.N., & Galvis, L.A.P. 2015. Using Pictures Series Technique to Enhance Narrative Writing among Ninth Grade Students at Institución Educativa Simón Araujo. *ELT Canadian Center of Science and Education*, 8(5), 45-71.

Hamalik, O. 1985. *Media Pendidikan*. Bandung: Alumni.

Harmer, J. 2001. *The Practice of English Language Teaching.* Essex: Pearson Education.

Harmer, J. 2004. *How to Teach Writing*. Essex: Pearson Education.

Harmer, J. 2007. *How to Teach English.* Essex: Pearson Education.

Hasanah, R. 2009. *Improving the Students' Ability in Writing a Procedure Paragraph Through*

Picture Series at MTsN Malang III. Unpublished S2 Thesis. Malang: State University of Malang.

Kemdikbud, 2014. Bahasa Inggris SMP/ MTs Kelas VIII: When English Rings a Bell. Jakarta: Kemdikbud.

Kemdikbud. 2016. *Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 21 Tahun 2016 tentang Standar Isi Pendidikan Dasar dan Menengah.* Jakarta: Kementerian Pendidikan dan Kebudayaan.

Krčelić, P. & Matijević, A.S. 2015. *A Picture and a Thousand Words: Visual Tools in ELT*. The paper was presented in the International Language Conference on The Importance of Learning Professional Foreign Languages for Communication between Cultures 2015, Zagreb, Croatia. 110-114, 18-19 September.

Mudassir, Y.S. 2014. *The Effectiveness of Using Picture Series on Students' Ability in Writing A Recount Text at Junior High School*. Unpublished S2 Thesis. Malang: State University of Malang.

Nirmala, Y. 2013. *Teaching Writing Using Picture Stories as Tools at the High School Level: the Movement from Other Regulation to Self Regulation.* Dissertation. Hyderabad: The English and Foreign Languages University (Online), (https://languageinindia.com/), retrieved on August 17, 2016.

Nunan, D. 1991. *Language Teaching Methodology: A Textbook for Teachers.* Sydney: Prentice Hall.

Pertiwi, L.A.J. 2016. *Documentary Films, Process Genre Approach, and Writing Ability: An Action Research.* Unpublished S2 Thesis. Malang: State University of Malang.

Raimes, A. 198). *Techniques in Teaching Writing*. Oxford: Oxford University Press.

Richards, J.C. & Renandya, W.A. (Eds). 2002. *Methodology in Language Teaching: An Anthology and Current Practice.* Cambridge: Cambridge University Press.

Richards, J. C. 2006. *Communicative Language Teaching Today.* New York: Cambridge University Press.

Samjaya, W. 2012. *Media Komunikasi Pembelajaran.* Jakarta: Kencana Prenada Media Group.

Smaldino, S.E., Lowther, D.L., & Russel J.D. 2008. *Instructional Technology and Media for Learning* (9th edition). New Jersey: Pearson Prentice Hall.

Sudaryo, D.M. 2013. *The Use of Picture Series Through Process Writing Approach to Improve the Students' Achievement in Writing Narrative Texts on Grade Eight of SMPN 1 Batu.* Unpublished S2 Thesis. Malang: State University of Malang.

Wright, A. 1989. *Picture for Language Learning*. New York: Cambridge University Press.

Yunus, N.A. 1981. *Preparing and Using Aids for English Language Teaching.* Kuala Lumpur: Oxford University Press.

Process of Self Regulated Learning an Student's Strategic Studies Activities in Learning Environment

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ABSTRACT: Many changes in the concept of educational psychology right now, so that self-regulated learning has been a major focus of research. There are some similarities that emerge from different theoretical concepts that exist in learning self-regulation. Model self-regulated learning is rooted in a broader conception of the development of self-regulation has been associated with a variety of domains to understand how active a person's role, objectives and reflect on their own function or behavior. Contemporary models of self-regulated learning proposing that the self-regulated learning is influenced by social factors and contextual, so it supports the perspective of social-cognitive most well understood is the reciprocal relationship, where cognitive personal factors, environment and behavior interact by way of reciprocity. The interrelationship, which includes the social environment and a variety of learning contexts, is as fundamental social cognition. The neighborhood has a significant impact on development, and also affects actualizing self-regulated learning. Seeing the cognitive and social perspective, requires the assumption that the social and the self is seen as a separate entity, while the role of social and environmental factors are factors to influence students and provide opportunities for the development of self-regulated learning skills. The theoretical framework of self-regulated learning assumes that social factors as a central factor.

Keywords: self-regulated learning, models of self-regulated learning, social factors.

Self-regulated learning is both a theory and a field of research on self-regulated school learning which emerged in the mid-1980s. Focusing on the principle that learning is an active and constructive process, research has enquired into the ways in which learners can take control of their own learning processes. Self-regulation is a key element within this theoretical framework. Zimmerman considers it important to clarify that self-regulation is not a mental ability and neither is it a skill linked to specific academic performance but rather it is a self-directed process by means of which learners transform their mental abilities into skills linked to activity practiced in a specific context. Such an approach sees learning as an activity which students do for themselves in a proactive way.

Research and observations on self-regulated learners in different times and using a range of methods have demonstrated that they approach school activities diligently, confidently and in an entrepreneurial way. Furthermore, they show awareness both of when they know a given fact or possess a specific ability and when they do not. In contrast with their 'passive' classmates, proactive self-regulated students search out information and adopt whatever measures are necessary to take control of it. When they encounter adverse situations such as bad study conditions, confusing teachers or text books which are difficult to understand they find ways to succeed in any case. Self-regulated learners see knowledge acquisition as a systematic and controllable process and feel greater responsibility in the achievement of their results. They show that they:

1. possess an awareness of the strategic relations which exist between regulatory processes or responses and learning results;
2. can make use of the strategies they are aware of to achieve pre-established objectives.

Self-regulated learning must thus be split into: (1) processes of self-regulation such as perceptions of self-efficacy which we will look at further on and. (2) adoption of strategies aimed at optimizing such processes such as, for example, setting intermediate objectives or the intrinsic task itself.

Identifying a highly exhaustive theoretical and experimental framework must be accompanied by teaching practice which is particularly attentive and aimed at promoting self-regulated learning. This has profound implications in planning, choice of teaching strategy, teaching practice, interaction with students and the way in which the school should be organized in order to promote activities aimed at acquiring and developing skills and self-regulatory abilities within teaching.

Furthermore this vision radically changes the focus of educational analysis: from the ability to learn and environments considered fixed bodies, the focus of educational analysis shifts to processes activated autonomously by students and the responses received from them with the aim of improving their skills and the environment in which they learn. This analysis is made up of two parts: the first deals with setting out the main theoretical perspectives relating to research into the processes involved in self-regulated learning and the second part briefly analyses what it means for didactics and focuses, in particular, on the importance of planning perspectives which place students at the center of the process as active, autonomous and aware of their learning processes in accordance with the main educational aims.

THEORETICAL REVIEW

Models of self-regulated learning

How someone in regulating cognitive processes has been a continuous issue for researchers in various disciplines of psychology. Self-regulated Learning has been the topic and attention, the emergence of several theoretical models of self-regulated learning.

There are several models in the self-regulated learning, self-regulated learning model are:

1. Boekaerts' Model of Adaptable Learning

The model of self-regulation Boekaerts adaptation learning focuses on student learning in the classroom. Basic premise is that the learners are trying to balance two priorities, namely (a) expand your knowledge and skills to improve their personal resources in the mastery of learning, and (b) establish what is known and believed the student to avoid and overcome or how to learn.

In accordance with the two-way, students refer to the constellation of: (1) strategies that build resources and (2) the coping strategies that protect resources. Thus, the model Boekaerts combines elements of cognitive and motivational elements. This success story depends on the capacity of learners to assess the overall situation and the control element assignment approach to learning.

There are three main sources of information. When students are involved in learning, the first is the perception of the environment. It is a composite of the task, the teacher's instructions and expectations of the physical and social context. The second source of information is a spectrum of knowledge and skills specific to the task domain which comprises an action plan. The plan includes: before the declarative and procedural knowledge, the success of the tactics and strategies that have been used previously, plus the metacognitive knowledge. The third source is the lack of level of information of interest of students, motivation, and values. Model

Boekaerts emphasize learners set goals and how to control for success and failure. The results of self-regulation plan how they can receive feedback on the destination. When the goal is not met, the students attempted to balance the goals in relation to control and adapt to maintain balance and satisfy her feelings. (Vohs & Baumeister., 2016; Aukrust, 2011).

2. Model Four Stages of Pintrich

Pintrich describes a model four stages in the learning stages of self-regulation, which begins with thinking, monitoring, control and activation phase. At these stages, students are making plans for learning sessions and activate the relevant knowledge and perceptions about the specific learning task and the context in which they will learn. In the second phase, monitoring learners monitor different aspects of themselves, tasks, and other contextual conditions. The assessments made during the monitoring process are active in the second stage to inform the third stage, the control. In the control phase, the students attempted to regulate aspects of the self, task, or context that is considered to impede progress toward learning goals. Fourth stage, the students involved in reaction and reflection, tasks, and context. Pintrich stated that although the four phases of this shows the order of time in the process, learners can simultaneously engage in monitoring, control, and reactions during learning tasks as well as information on the three phases may assist learners in updating objectives created earlier and plan of the first stage (Johnson, et al., 2011).

3. Social Cognitive Model Zimmerman

Zimmerman model developed social cognitive theory Bandura. Zimmerman development of social cognitive theory put forward there are three phases of the cycle of self-regulation processes in the model Zimmerman, namely: forward thinking stage (forethought), performance stage, and a stage of self-reflection. Forward thinking stage consists of two main processes task analysis and self-motivation. Self-motivation is composed of individual beliefs about learning is self-efficacy. Stage performance consists of two main groups of self-control and self-observation. Self-control refers to the application of a particular method or strategy that has been at the stage of thinking. Observation himself refers to the recording itself against personal events or experiment yourself to get the cause of the incident. Self-reflection phase consists of two main processes of self-assessment and self-reaction. One form of self-assessment is a self-evaluation that compares the results of observations themselves to the performance standards as the previous performance, the performance of others, or absolute performance standards. The other form of self-assessment is attribution of the causes which refers to beliefs about the causes of success or errors. Forms of self-composed reaction are self-satisfaction and an adaptive response or defensive. Increased self-satisfaction was increasing motivation, while the decline in self-satisfaction would undermine the learning effort. (Greene & Azevedo, 2015).

Zimmerman states there are three elements in the learning of self-regulation:

a. Covering metacognitive awareness and understanding of the process of self-awareness and knowledge in determining learning approach as one way in the process of thinking. Metacognition ability to support the learning process of self-regulation with a plan, set goals, monitor, organize and evaluate a variety of activities during the upgrade process.
b. Motivated. Individuals who are motivated are individuals who have a focus on the importance of the extraordinary efforts and persistence in learning. Motivation in learning self-regulation is a situation that shows the characteristics of high efficacy, as well as the nature of the self and the interest in the task, their perception of the students were able to complete the task and potential students will achieve success and courage to face failure.
c. The behavior of active participation. Behavior active participation is a response that is influenced by several processes such as good behavior shown in the environment, active participation behavior is behavior that can be observed, can be trained and developed, and

its nature is interaction. The process of learning self-regulation of behavior in such select, organize and create an environment for learning. Students were seeking advice, information and a favored spot for learning. Students are also trained proficiency and strengthen the establishment of performance (Bembenutty, et al., 2015)

4. Model Winne and Hadwin

Winne and Hadwin describe a model consisting of four phases analyzed the tasks, set goals and make plans, implement strategies to complete the task, and regulating learning. Model Winne and Hadwin describe occasions when learners to learn, such as doing homework or prepare an oral presentation. Winne and Hadwin stated that instructions are four phases of learning flexible and recursive self-regulation. In the first phase, the students identify what they consider to be the conditions that determine a given task. These conditions are in two major categories. the condition of the task is the hope of a given task like destination teacher (or a book), a series of time available, the involvement of peers, social structure (eg, cooperative, competitive, or whether it is the responsibility of individual or collective), the resources available for start and then support the work on the task, guidance or assistance internal condition of cognitive students. Included in the scope and relevance of knowledge, motivational orientation, epistemological beliefs, knowing strategy learning tactics, and other qualities that make individuals unique learner. In the second phase of this model, learners build the perception of what tasks and, on that basis, set up the goal. In the third phase, students begin to engage with the task, taking steps to achieve the goal. In the fourth phase, large-scale changes to a previous phase can be performed, including changing metacognitive knowledge, to increase success in the present and for the tasks in the future. In each stage, Winne and Hadwin have a hypothesis that students engage in metacognitive monitoring. For example, in the first stage, learners can relearn external source what they know about the duty to revise their job descriptions. When the metacognitive monitoring is a later stage to the gap in themselves too big, learners repeat phase before adjusting.

5. Self-regulation Stuart Shankar

Shankar (2013) defines self-regulation as how well a child is able to handle stress and seek to recover it. Students are able to recover in a steady state is much more likely to learn, establish a good relationship and be self-motivated. Ways that are socially acceptable and help achieve positive goals, such as maintaining a relationship in learning and maintaining well-being.

Self-regulation consists of five domains that consist of domain physiological /biological, cognitive, emotional, social, pro-social. The fifth major source of stress in the lives of students that should be considered by Shankar such as:

1) Physiological, activity or energy levels in the human nervous system. For example, some children may be hypersensitive to sound.
2) Emotional, positive emotions (e.g. interest, curiosity, happiness) produce energy, while negative emotions consume huge amounts of energy
3) Cognitive, mental processes such as memory, attention, acquisition and retention of information, and troubleshooting.
4) Social, understanding social cues and behave in socially appropriate ways.
5) Pro-social, voluntary behavior intended to benefit another person, such as helping, sharing, donating, and work together. (Shankar, 2012)

Viewed from a variety of backgrounds and theoretical orientation of the researcher in question of several models of learning self-regulation of the above, it can be concluded and interpreted that learning self-regulation consists of the elements or factors as follows:

a) Self-regulated learning is the extent to which students are active in the learning process not only in the cognitive and metacognitive but also in motivation and behavior.

b) Self-regulated learning have in common is the recognition of the students in making a response-oriented self concludes.
c) Self-regulated learning gives precise and detailed indication of how and why students choose to use one strategy or particular response.

Social factors

The learning environment refers to a variety of physical locations, context and culture in which students learn. Since students can learn in a variety of settings, such as out-of-school location and the outside environment, the term is often used as an alternative to more accurate or more like class, which has a connotation-more limited and traditional rooms with rows of desks and blackboards, for example.

This term also includes the culture of the school or his class ethos lead and characteristics, including how individuals interact with and treat one another-as well as the ways in which teachers can organize an educational setting to facilitate learning. This definition recognizes that students learn in different ways in a very different context. Since learners have to do the learning, the goal is to create a total environment for learning that optimizes the ability of students to learn. There is certainly no single optimal learning environment. There are an infinite number of possibilities for the learning environment, which is what makes teaching so exciting. How does the *social and physical environment* influence students' self-regulated learning?

According to Zimmermann the instrumental conditioning theorists are the most explicit on the subject of the links between self-functions and the immediate environment. Internal processes are defined in terms of their appearance in open behavior and the functional relationship between environment and behavior is the focus of this approach. The link with the environment is advantageous for the effective development of educational intervention procedures. In this sense the environment is capable of exerting modeling and reinforcing processes on learners. By contrast the phenomenological approach refutes the objective nature of the physical and social environment in that it makes it the subjective perception of learners.

This requires the construction of pathways centered on learners in the sense that teachers must evaluate the results of their activities taking account of their perceptions and not on the basis of external criteria. For this reason teachers must promote students' self-confidence in their ability to learn. The social cognitivists focus their research programmed on the relationship between specific social processes such as modeling or verbal persuasion and the various self-regulation processes. Environmental factors such as the nature of the task and the framework used to create it have also been systematically studied. Modeling and enactive mastery experiences have been shown to influence students' perceptions in achieving self-efficacy in a particularly significant way. Successful adaptation models can strengthen observers' sense of efficacy to the extent that they may succeed in experiencing them for themselves.

Information processing researchers argue that the physical and social environment is a relatively unimportant factor in determining self-regulation unless it is transformed into information that can be processed. If the influences of an environment are converted into specific information they can be self-regulated by means of control cycles in the same way as other sources of information. On the basis of such assumptions, certain theorists have argued for the need for a social environment as a necessary condition for the task in that it is evident that the presence of others influences students' needs to self-regulate their learning.

In the same way, volition theorists see the environment as secondary to cognitive factors whilst recognizing its impact on emotions and motivation. Control over the environment can increase only if control over action mediation is first improved. The students will to learn can

be increased by means of the tasks themselves and in the way they are set out. Volition strategies are also encouraged to maintain control in 'distracting' environments. Kuhl hypothesized that an unexpected failure, which is the key to the environmental event, triggers off a range of volitional control processes (in Zimmermann & Schunk, 2001). Failure interrupts the automatic mechanism and stimulates a critical condition in self-awareness which is necessary to volition processes. According to the principle of co-determination, Vygotsky emphasizes the role of physical and social environ-ments in child development. Individuals develop within an influential historical social context and speech plays an essential role in adaptation and control processes in this context.

Once speech initially derived from social encounters especially in dialogue with adults is internalized it becomes inner speech and takes on its own dynamics. Inner speech is seen as an instrument which enables students to act on the physical and social context of the immediate environment in order to trigger off new levels of mental, physical and social functioning. Inner speech is thus shown to be a self-regulatory tool to be used in solving difficult tasks, overcoming impulsiveness, planning solutions to issues which require resolution and mastering one's own behavior. The constructivists trace the concept of learning environment to those of social conflict or discovery. They research pedagogic procedures which increase cognitive conflict via the use of tasks which favor learning by discovery or learning groups involving social conflict.

Learning by discovery procedures brings unexpected results for students. Social conflict, just as in encouraging face offs between students of different cognitive levels or points of view, has been shown to be useful in producing the cognitive conflict which is needed to build growth. Within constructivism other researchers have adopted a situated cognition approach and suggest that concepts of self and the use of self-regulating methods should be adapted to their social context and include local community tools, values and habits. In the second wave of constructivism, learning by discovery and cognitive conflict shifted from exclusively personal causes of cognition to generally accepted mediating constructs in the collaborative learning of personal theories, identities and action adaptation.

CONCLUSIONS

In the light of the research and theories considered, learning does not occur randomly but is prompted by learners. Learners, then, take an active part in their own learning processes to the extent that they are capable of managing and directing them. This in turn involves recognition of the self-awareness and motivation which learners are able to garner to manage not simply their activities but also their internal processes. It requires an approach to learning relative to visible (what is learnt) and hidden levels (how learning occurs, which processes are personally activated to direct and orientate their own learning). In view of pedagogic aims, didactics must take account of learners' meta dimensions suggesting mediation process building not simply between learners and knowledge but also between learners, their context and their 'selves' in order to develop competences and meta-competences as an autonomous, self-reflective and pro-active process.

REFERENCES

Aukrust, V.G. 2011. *Learning and Cognition In Education*. Kidlington. Oxford OX5 1 GB, UK. Academic Press Elsevier the Boulevard Langford Lane.

Bembenutty, H., White, M.C., Vélez, M. 2015. *Developing Self-regulation of Learning and Teaching Skills among Teacher Candidates*. New York: Springer

Greene, J.A. & Azevedo, R. 2015. *A Theoretical Review of Winne and Hadwin's Model of Self-Regulated Learning*: *New Perspectives and Directions*. Journal Citation Reports (Thomson Reuters, 2015).

Johnson, A.M., Azevedo, R. & D'Mello. 2011. *The Temporal and Dynamic Nature of Self-Regulatory Processes During Independent and Externally Assisted Hypermedia Learning*. Cognition And Instruction, 29 (4), 471–504.

Shankar, S. 2012. *Thinker in Residence Commissioner for Children and Young People WA*. Report of the 2012 Thinker in Residence Western Australia.

Shankar, S. 2013. *Calm, Alert and Learning: Classroom Strategies for Self-Regulation*. Pearson Education : Canada

Vohs, K.D & Baumeister, R. F. 2016. *Handbook of Self-Regulation, Third Edition: Research, Theory, and Applications Third Edition. The* Guilford Press. New York London.

Zimmermann, B.J., Schunk, D. H. 2001 *Self-Regulated Learning and Academic Achievement. Theoretical Perspective.* Routledge Taylor & Francis Group.

Analysis of the Learning Obstacles Based Lesson Study on the Lecturer Models in Subject of Animal Diversity and the Solutions

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Abstract: Lesson study based learning by magister students who took subject lecture and practice field was an experience as lecturer model. The aim of this study was to take data and information about learning obstacles based lesson study on the magister students (as lecturer models) in subject of animal diversity. This research used descriptive exploratory. Data collected by observation and interview. The observation was conducted in August 2016 to October 2016 during learning process in the class. The interview was conducted to six lecturer models. Technique analyzed by qualitative approach. The result of this research showed that there are same obstacles on lecturer models during learning process. The obstacles were: lacking of confidence, in this case some lecturer models nervous when learning was started; over timing; the concepts and learning material were not understand optimally; syntax was not implemented correctly, and teaching techniques was not professional. The solution could be given in some aspect: plan learning, concept and material subject, learning method, and teaching professionalism especially in lesson study. The conclusion of this research was learning based lesson study on the lecturer models in animal diversity subject has the same obstacles and need efforts as the solution.

Keywords: lesson study, lecturer model, animal diversity, the learning obstacles

The goals of Biology Education Study Program, Postgraduate Malang State University are (1) professional in implementing learning biology and biology education for S1 and schools. (2) to develop science and technology in the field of biology and biology education through the organization of research, development, and other scientific activities; (3) to conduct monitoring and supervision of the implementation of the biology education, both in S1 and school levels. Based on the goals, there were two competencies: (1) conduct learning biology and biology education, both the graduate program and school levels; (2) improve the ability of teachers to implement teaching biology in schools through training programs (Pascasarjana UM, 2015).

In order to realized competencies graduate master education of biology, the competences to be implemented in the lecture curriculum. One of subject which could be improve competences was studies and field experience (KPL). Pascasarjana UM (2015) stated KPL was subject that linked theory with practice through the implementation in learning microteaching with lecturer subject as guide and adviser. The postgraduate students plan, do, and evaluate educational program in institution or people. In the end of KPL time, students must make a individual or group report. KPL was action research based on lesson study.

Action research is a form of disciplined inquiry used to investigate a problem or question of personal interest where there is no satisfactory present answer. It is a cyclical process in which educators use primary resources and real-world information and data to inform new courses of action (Johnson, 2001). It helps educators know that their questions and perspectives matter and pursue investigations that are of authentic concern from a motivational perspective, (Ginsberg, 2011).

Action research can be a powerful tool to strengthen instructional leadership. Action research can also be a collaboration form of learning. For example, the Japanese "lesson study" method through which educators investigate an instructional concern by designing a lesson together, watching a colleague teach the lesson, and then reflecting can be collaborated with action research. It called action research based on lesson study.

Lesson study is a professional development process that Japanese teachers engage into systematically examine their practice (Fernandez *et al*, 2004). Lesson study is a cycle in which teacher work together to consider their long term goals for students, bring those goals to life in actual "research lesson", and collaboratively observer, discuss, and refine the lessons (Lewis, 2002). Lesson Study is a "comprehensive and well-articulated process for examining practice" (Fernandez, Cannon, & Chokshi, 2003).

Lewis (2002) describes the *Lesson Study Cycle* as having four phases: goal-setting and planning – including the development of the Lesson Plan; teaching the research lesson enabling the lesson observation; the post-lesson discussion; and the resulting consolidation of learning. The phenomenon known as lesson study evolved through precisely such a sharing of responsibility, and a collaborative process of preparing lesson plans, conducting and observing lessons, checking and evaluating teaching, reflecting on practice, and planning. It means, there was any differences about lesson study cycle or steps. In this KPL subject used steps from Saito et al.

There were 3 steps in lesson study: plan, do, and see (Saito, et al 2005). Action research based on lesson study was learning process in KPL used 3 steps plan, do, and see). It means was the lecturers model used method and strategy to taught in the class, not only taught the lecturers model also as an observer during learning process if not as a lecture. Lecturers model was taught animal diversity subject in this KPL.

Animal diversity is a subject that is taught at the State University of Malang on S1 Biology Education courses. This subject has learning objectives include: Understanding the concept of animal diversity, classification, and taxonomy; applying the principle of classification of animals based on the biological characteristics (morphology, anatomy, physiology, DNA, habitat, livelihoods) and its relation to the role / benefits for everyday life in animal samples from members of each phylum/subphylum.

Lesson study based learning by magister students who took subject lecture and practice field was an experience as lecturer model. Implementation KPL in animal diversity subject has a lot of information that can be obtained during the learning. In this discussion, it will be examined the other side of the lesson study, the postgraduate students' first experience as lecturers model of biology education. It is first experience as lecturer model taught graduate program. Its means there was many something that found, one of them was the obstacles. As the lecturer model, there were many obstacles that found. The assessment will be focused on the obstacles encountered during a lecturer in the model as well as the solutions that will be given to overcome it.

METHODOLOGY

This research used descriptive exploratory. Data collected by observation and interview. The observation was conducted in last August 2016 to October 2016 during learning process in the class. Based on lesson study this observation was conducted during Do process of lecturer model. The interview was conducted to six lecturer models. Based on lesson study this interview was conducted during See process (Reflection). Technique analyzed by qualitative approach.

RESULTS & DISCUSSION

The result of this research showed that there are same obstacles on lecturers' model during. The table 1 showed the result of obstacles:

Table 1 Aspects of Obstacle

No.	Aspect	Described
1	Self confidence	Lacking of confidence, in this case some lecturer models nervous when learning was started
2	Timing	Over timing
3	Concept and material learning	It show good concept but the concept and material learning should be optimally know.
4	Syntax	Good implemented, but not thoroughly lecturer model completed the steps.

The first experience as lecturer model has made some of them felt nervous. It's normally condition. One well-established finding in psychology is that actions give rise to feel. Eison (1990) states there are no impression without expression. Thus, to feel confident in the classroom the neo Phyfe instructor must begin acting confidently. "Easier said than done" or "How does one begin?" the doubtful reader might rightfully reply. Increased confidence about one's teaching will result when the following general recommendations are implemented and practiced regularly.

Almost of lecturers model are over timing in their class. Time management was important to effective and optimally during process. Ugluwashi (2012) stated the realization of educational goal despite the amount of resources involved remains ineffective without good time management. Time is an indispensable element in successful accomplishment of any activity and refers to a "particular period". The condition happened because during process learning (main activity) spent many times. The students' enthusiasm during process, it's good but the risk not good for time management.

Lecturers model had a good knowledge about material learning, but occasionally still have doubt. Teacher's cognitive abilities do determine students' academic performance and effective classroom management (Rice, 2003; Khojastehmehr & Takrimi, 2009; Wayne & Young, 2003; Rackoff, Jacob, Kane & Staiger, 2000). In reviewing the literature related to teacher quality models, Harris and Rutledge (2007) have concluded that the predictors of teacher quality and effectiveness are cognitive ability, personality attributes and educational background.

As a lecturer model, taught could be saw to include the technical knowledge especially about animal diversity which encompasses professional judgment that requires strong knowledge base or cognitive ability.

Generally, all of syntax which used in learning had good implemented but there was one or two steps that could be attention to recognized and then fixed it. The table 2 was showed it:

Table 2 Syntax Condition

Lecturer Models	Method	Steps
1	PBL	Presenting problem
2	TPS mixed Experiential Learning	Generalizing: connect to real life Applying: plan effective change

3	STAD	Achievement to students
4	Guided Inquiry	Formulation problem difference between students
5	Discovery Learning	Data processing report
6	PjBL	Determining project based on lecturer , not students.

Presenting problem in PBL was abstract, the student felt difficult to described something that related material with problem. This was became responsibility of lecturer model to presenting concrete problem. TPS mixes Experiential Learning was not presented generalizing and applying. It happened because the material had not something which touched directly to connect to real life students. Material is talking about Cnidaria. STAD not implemented step achievement to students. This is important as main step. The condition happened because overtime. Guided inquiry has good implemented but the first step not enough strength to formulated problem so that the problem difference between students to other. Discovery learning during processing data is not including data processing report. PjBL was method spent long time. The implementation was good. The step must be fixed was determining project. Determining project based deal between lecturer and students, not only lecturer.

Teachers are also school managers who manage their students in and out the classroom. Thus, curricular and co-curricular activities must be planned and executed effectively to ensure students' holistic development (Abdul Rashid & Bokkasam, 2005).

The obstacles had been happened could be fixed with some solutions, the solutions that could be fixed it, are:

1. Plan learning: At this stage all participants LS expected to plan the learning process together. Planning activities implemented jointly will have a positive impact on results will be obtained.
2. Concept and Material Subject: Before starting learning (do), lecturers are expected to master the material with good models. This can be done by: reading the references relating to the material or subject taught, in this case that of the diversity of the phyla of animals in particular; All participants LS conduct an academic study of the teaching materials that have been, so that learners can be optimized to get the material and avoid misconceptions; Invited lecturers specialists or experts in their fields, such as faculty diversity of animals to provide the material with this understanding will be owned by the lecturers and participants LS models will be more comprehensive.
3. Learning method: Study method of learning is very important so that will give you an understanding of the observance.

SUMMARY AND CONCLUSION

Learning based lesson study on the lecturer models in animal diversity subject has the same obstacles in generally. The obstacles were self-confidence, timing, concept and material learning, and syntax. I suggest that for magister students be given concept and sharing experience about lesson study. If we include part of lesson study, as an observer or lecturer model, at the same time we are as a researcher actually.

REFERENCES

Abdul, R.A. & Bokkasam, S. 2004. Teachers' perception on the effectiveness of cocurricular activities: A case study of Malaysian schools. *UNITAR e-Journal*, *1*(1). Retrieved from http://ejournal.unitar.edu.my/articles/abdrashid.pdf

Eison, J. 1990. Confidence in the Classroom: Ten Maxims for New Teachers. *Collage Teaching*, Vol. 28, No. 1. Taylor & Francis Group

Fernandez, C., & Yoshida, M. 2004. *Lesson Study: A Japanese Approach to Improving Mathematics Teaching and Learning*. London: Lawlence Erbaum Associated, Inc.

Fernandez, C., Cannon, J., & Chokshi, S. 2003. A U.S.-Japan lesson study collaboration reveals critical lenses for examining practice. *Teaching and Teacher Education, 19,* 171–185.

Ginsberg, M.B. 2011. *Transformative professional learning: A system to enhance teacher and student motivation*. Thousand Oaks, CA: Corwin Press.

Harris, D.N., & Rutledge, S.A. 2007. *Models and predictors of teacher effectiveness: A review of the literature with lessons from (and for) other occupations.* Madison, WI: Teacher Quality Research. Retrieved

Johnson, A.P. 2001. *A short guide to action research*. Boston, MA: Allyn & Bacon.

Lewis, C.S. 2002. *Lesson Study: A Handbook of Teacher-Led Instructional Change.* Philadelphia, PA: Rechool, Inc. Research for Better Schools

Pascasarjana UM. 2015. *Katalog Program Studi Pendidikan Biologi*. Malang: Pascasarjana UM.

Rice, J.K. 2003. Executive summary and introduction. In J. K. Rice, *Teacher quality: Understanding the effectiveness of teacher attributes* (pp. v-vii and 1-7). Washington, DC: Economic Policy Institute.

Saito, E, Imansyah, H, & Ibrohim. 2005. *Penerapan Studi pembelajaran di Indonesia: Studi Kasus dari IMSTEP.* Jurnal Pendidikan "Mimbar Pendidikan", No. 3 Th XXIV:24-32

Ugwulashi, C.S. 2012. Assessing School Administration in Nigeria for Quality Assurance. In Academic *Research International Journal*. Pakistan: SAVAP International, *2(3), May June, 2012.*

Brand Loyalty in Cosmetic Products Among Women Perception: Brand "Wardah"

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Abstract: Companies always try to find another way to make their customer stay loyal to them. We all know that the goal of every company is to get profit, but the important thing that they should make attention is the market, the consumer. Loyal consumer is more profitable than acquiring a new one. Customers who are loyal towards a brand are fewer prices sensitive and willing to pay a higher price for a specific brand compared to other alternatives, since customers may perceive a unique value in the brand. Cosmetic products have become a good market in entire the world, everywhere you go you will never see a country where cosmetic products do not have his place in the market. To be a good competitor in the market, cosmetic industries must build a strong brand loyalty because of the presence of well-known product in domestic and international quality brand. The purpose of this study is to describe the perception of brand cosmetic by women behavior in Klojen District Malang, Indonesia. This study use qualitative research method, where the data was collected by interview, observation, and documentations towards a group of young women. The finding of the research indicates that consumers are loyal with the brand of the product that they are choosing. The result also disclose that there are different behavior which consumer has when they purchase cosmetic product, these are compatibility, price.

Keywords: brand loyalty, women purchasing perception

Brand is define as symbol, mark, logo, name, word, sentence or a combination of many items that companies used to differ their product to other similar one. In many industries, companies are trying to retain consumer because loyal customer is a source of profitability. Marketing practitioners and researchers agree that 5% of loyal customers and more can cause an increase in profits of up to 94% and the customer retention is cheaper than acquiring new customers (RL Oliver, 1999). Nowadays, brand image in cosmetic product is very important and particularly towards women purchasing. Customer will perceive the brand from the images through labeling, packaging, advertising and designing.

The definition of brand loyalty can be said as the power of linking for a brand compared to other similar available option. Brand loyalty is a function of behavior as well as attitudes. It is the first choice made by the consumer to purchase a particular brand in a products group. (Farquhar, 1989) Another aspect which is closely related to brand is building a brand loyalty for a product which requires careful planning, distinct skills and investment. Making new product to be known in market is not easy; it needs some studies, which product or which name of the product can easily registered in customer's mind.

Customer is loyal in one brand if they feel that the brand can satisfy their needed, and then they want to continue the relation with this brand. Another reason why customer are loyal is because of the high changes related to technical, economical or psychological factors that may be difficult for them to achieve the product, or may costly if they try to purchase another brand.

A cosmetic market has become a social phenomenon in Indonesia. Over time, attitudes and habits are changing as social structures metamorphose, as new and different technologies affect the market. With around 251 Million population and an average grade of 15% of the population, changes in consumption cosmetics is averaging 12% per year, it just mean that the demand of cosmetic product remain strong despite the power of purchasing by the population (Bureau business France de Jakarta).

This study focused on describing brand loyal customers particularly towards women consumer perception by purchasing cosmetic products from Wardah in Malang Indonesia.

THEORY AND EMPIRICAL STUDIES

Brand Loyalty

The original notion of brand loyalty was that repeat buyers are more profitable than acquiring new one. The important goal in the branding process is that achieving a high degree of loyalty. The concept of "loyalty" grew out of the term "insistence" coined by Copeland (1923). Instance is the attitude of the consumer towards the demand for branded product. So according to Copeland the concept of brand loyalty has been extensively investigated in consumer as a behavior, attitude or a composite of both of these concepts.

In order to conceptualize the definition of brand loyalty, Jacob and Kyner (1973) proposed a definition of brand loyalty using a set of six components, which biased behavior, responding behavior, continuous behavior, decision-maker behavior, decisions among the alternatives, and concerted decision making process. So we can conclude that brand loyalty is a composite of behavioral and attitudinal properties.

Loyal customers are unwilling to switch brands and prefer to stick with a brand that they feel comfortable and satisfied with (Rosenbaum-Elliott et al, 2011). Another advantage for companies with brand loyal customers is the fact that it can lead to market benefits. According to Bloemer and Kasper (1995), there is a difference between consumers who do not have any attachment to the brand or because of convenience so that the consumers repurchase, and a consumer who is brand loyal to the brand, and that is very important. A consumer who is committed to the brand is called a brand loyal consumer while a consumer with lack of attachment to the brand is called a spurious consumer. The spurious brand loyal consumer can easily change brand if a better offer would occur, or if some other brand would be more comfortable to buy (Bloemer & Kasper, 1995).

Satisfaction can be broadly characterized as a post purchase evaluation of product quality was given repurchase expectations (Kotler, 1991). Anderson and Sullivan (1993) found that satisfaction among consumers has a positive impact on repurchase intentions. They argue that companies should observe providing high satisfaction can result high repurchase intention among consumers. Loyalty as a result of cognitive decision making occurs when, through trial and error of a brand, which provides a satisfactory experience is chosen. Rational thought processes dominate where loyalty to the brand is the result of repeated satisfaction with the brand (Uncles et al. 2003).

Brand loyalty is not the same as repeat purchase behavior (Light, 1993). Repeat purchase behavior, means that the consumer is merely buying a product repeatedly without any particular feeling for it. Where a brand is bought out of habit merely because less effort is required, inertia is said to be present (Solomon et al. 1999). Many people tend to buy the same brand almost every time they go to a shop and such a consistent pattern of behavior is often due to the presence of inertia. In essence, the consumer passively accepts a brand. Lau et al. (2006) in his article mentioned that there were several factors that influenced consumers brand loyalty

towards certain brands. The factors were: brand name, product quality, price, promotion and service-quality.

COSMETIC PRODUCT

Cosmetic product has become a needed for women in Malang, even in all around Indonesia. Everywhere and every time you go out, you will never see young or old women go out without wearing makeup. Cosmetics are considered as a necessity rather than something that people want for materialistic ends, especially for women. Cosmetics refer to all products that care for and clean the human body and make it more beautiful. The main goal of such products is to maintain the body in a good condition, protect it from the effects of the environment and aging process, change the appearance and make the body smell nicer (Finans al Forum Cosmetics Sector, Special Issue, 1997). The general term cosmetics is applied to all preparations used externally to condition and beautify the body, by cleaning, coloring, softening, or protecting the skin, hair, nails, lips, or eyes.

The biggest multinational cosmetics companies in the world such as Makeover, Procter and Gamble, Garnier, Pond's, Nivea, L'Oréal, Revlon, Ultima are very much interested in the Indonesian market. There are also local products such as Pixy, Wardah, Citra, Saryayu. Wardah product is high-quality product with global cosmetic standards. All Wardah products are formulated with: Research conducted by pharmaceutical experts and experienced scientists. Always refers to the international standard formulation. The materials used are international quality standards, nearly 90% of Wardah cosmetic materials are imported from countries: France, USA, Japan, South Korea, Belgium, England and Germany. All materials used are certified: safety and halal. Because of Indonesia is as part as Islam country so halal characteristic is very important. Some Indonesian customer looks after it if they want to purchase a product. Not contains any prohibited or dangerous materials such as Mercury, Hydroquinone, Tritenoin, Retinoic Acid, Formaldehyde, etc. In selecting materials, Wardah always uses materials from verified global suppliers, where the suppliers are also the global cosmetics brands (Wardah).

"Cosmetic plays an increasingly important role in daily lives of Indonesians and the skincare market, meanwhile, is growing so much that cosmetic companies are even starting to take aim at men" state Cosmetics in Indonesia. An extensive survey by market research firm Nielsen found that sales of cosmetics in urban areas increased by 9.4% year-on-year in the first half of 2013, while in rural regions, sales boomed by 27.5% (Indonesia's Cosmetics Market). In this case, urban areas have become consumers of basic skin care, and make-up product which become a necessary in their daily lives. The study found that "images of women wearing makeup were judged to be healthier and more confident than the images of the same women without makeup. When wearing cosmetics women were also assigned greater earning potential and considered to have more prestigious jobs than when they were presented without makeup" (Nash et al., 2006).

Women Purchasing Behavior

We all are consumer. Women are amazing creatures, they are difficult to understand. There are many factors that influence our purchasing behavior from internal and external environment to us such as self-concept, perception, social and cultural, attitudes, beliefs values, motivation, personality, social class and many other factors. Determining consumer buying behavior towards a certain product is one aspect of marketing research. The important thing that marketers must understand is the need of different consumer; they should have understood

the similarity of the consumer for formulating their marketing plan, and to learn deeply the external and internal factors to their company.

Consumer behavior is a study of why people purchase, when they purchase, how they purchase and where they purchase a product. It is important to know how consumer reacts towards different product features, price, and advertisement in order to ensure strong competitive advantage. It involves understanding the set of decisions (what, why, when, how much and how often) that consumer makes over the time (Hoyer 2004). The results of the study of Cara Peters Jeremy A. Shelton Jane B. Thomas, (2011), with the title "Self-concept and the fashion behavior of women over 50", indicate that apparel purchase decisions for senior females are complex and involve issues beyond style, fit, and price.

METHODOLOGY

The aim of this study was to describe brand loyal customers particularly towards women perception by purchasing Wardah cosmetic products in the district of Klojen, Malang. This research use qualitative research method. According to Bogdan and Taylor cited by Moleong "qualitative methods is a research procedure that produces descriptive data in the form of words written or spoken of people and behaviors that can be observed." The data was collected from primary and secondary sources. Data gathered directly from people in the form of interviews, observation, and uses of documentation is considered as primary data where called triangulation. The secondary data was collected from journals, books, and websites. In these research five women consumers have been asked during the interview. They are between the age of 20 and 25 years old. In qualitative research, data analysis technique was directed to answer research question Miles and Michael divided the process of analysis into three phases, consisting of Data Reduction, Data Displays, and Conclusion Drawing/Verification.

Data Reduction

Miles and Huberman state that anticipatory data reduction is occurring as the research decides (often without full awareness) which conceptual framework, which sites, which research question, which data collection approaches to choose. In this research, there are some questions that has been asked to women consumers about the types of the products that they used to use such as skin care, body lotion, lipstick, from Wardah's product, does the product from Wardah's can satisfied their need, what are the factors that might affects their purchase decision, and how many times do they use the product which make them loyal.

Data Display

Table 1: Brand loyalty approach

No	Brand loyalty approach	Number	Percentage
1	Satisfied	3	60%
2	Cognitive decision	1	20%
3	Repeat purchase behavior	1	20%
TOTAL		5	100%

From the above table 1, noted that there are three brand loyalty approaches that make consumer to be loyal, in first place, consumers are satisfied, 60% of consumer are satisfied in Wardahs' product. Cognitive decision, which means that after having different experiences, the result can be satisfactory or not, it's proved that there are some consumers use this cognitive

decision around 20%. Then 20% of the customer uses it just by repeat purchase behavior where they do not have feeling about the product, they just purchase it to avoid of wasting time and search information about another product.

Table 2: Description of loyalty

No	Number times of purchase	Number	Percentage
1	2-4	1	20%
2	>4-6	2	40%
3	>6-8	1	20%
4	>8-10	1	20%
TOTAL		5	100%

Table 2 referred those women consumer use their preferred product by purchasing between 4 until 6 times. 20% of women consumers purchase between 6 until 8 times even until 10 times.

FINDINGS AND DISCUSSION

All of women that have been asked use all essential facial wash from Wardah's product. From the answers by the different consumers, facial wash from Wardah protects skin from the effect of sunlight, skin become more smooth, after using the facial wash from Wardah, dark spots on face has been reduced, protect from every pollutants (dust, cigarette smoke), cares skin by removing dead skin cells, skin become more light. Lipsticks, day cream, night cream, face powder, and foundation are also in high place, many women have trusted in Wardahs' product, because it can bring light in their face, one or two person choose acne perfecting moisture gel, all day protection, eyeliner, Wardah body butter, and eye shadow.

Quality and price have a very positive influence in women purchasing cosmetic product. In the process of the research, which characteristics might influence consumers when they purchase a product? Some said quality of the product, some said the price, the service that they are waiting from the personal selling because that can may help them to choose, to get more idea and information about the product. All of the persons who have been asked have the same idea about the product quality. Quality of the product is very important to women consumer, for example when they choose a facial wash, quality of the product seek the first characteristics that consumers are looking for, everybody has his types of skin; dry, oily, sensitive, a lot of acne, then it is important to choose the one which is matched with their need. Price and product quality have a relationship in purchasing a product. Customer who purchases a strong brand name may investigate in high price to avoid risk by buying a low brand name; they are ready to pay a price with the product in the brand that they preferred. Customers have a strong belief in the price and value of their favorite brands. Promotion and service quality come in second place. Promotion appears as the uses of advertising, communication, sales promotions, personal selling and publicity. Communication help the consumer to get more information about the product, it can help them to make a decision, established ideas and help them to compare one brand to another one. Service quality is a part of personal selling, and involves direct interactions between salespeople and the consumer. Consumer have a little perception in brand name, as they said "Brand name is just name but the important thing is the quality of the product".

Most of the women consumers are satisfied with the product from Wardah. They built strong attitudes towards this brand. There is even one of them responded that:

"Actually when I purchase a cosmetic product, the brand name is important for me, for example when I purchase everything about make up, I choose only product from Wardahs' brand. It because I trust this brand name, and I never change it for any other brand."

Brand loyalty as noted above is the result of satisfaction, the result of many experiences and they have a satisfaction with the product in the brand name, and the measurement of that satisfaction will make the consumer to repurchase again the product.

Some of them just purchase the product to avoid risk and wasting time by searching another brand or information so they use Wardahs' product just like repeat purchasing behavior or spurious consumer, who does not have any feeling about the product. People have different mind about loyalty during this research, some said that they do not even know if they are loyal or not, but as far as they know they are, because they just purchase always the same product. Here from what is said in the theoretical review it is just a repeat purchasing behavior but not loyalty, they buy always the same product in same brand name because of the inertia. Good or bad experience make the consumer to use a different brand, makes them to change to another one, once they found the one which is match with their need they will be a loyal consumer. Then from this research some of them said that:

"I already use another skin care product from what I use usually, I just want to try to have a lot of experience, and that help me to recognize which one is better for me".

During this research there are different purchasing perceptions, and different answer from different informant.

This study shows that consumer tend to be loyal if they repurchase 4 to 6 times by buying the same product in the same brand name. From five informants, 40% purchased between four and six times. But there are consumers who purchase the product until eight times, a very customer loyal. One woman thought that she is a loyal consumer because she built a long relationship with wardahs' product almost 8 years now and then the product can give her a satisfaction, so that can allow us to say that she is a customer loyal, maybe she has built a strong attitudes of this brand or any commitment and involvement with this product.

CONCLUSION

Achieving the customer needs and wants with lowest price is priority in term of market. Women consumer are an amazing creature and hard to understand. Everyone have his/her own perception in purchasing a product. Wearing cosmetic product is just not a fashion that is a must for women, it is the feeling of self-confident, beauty, protection, beliefs and values. Every women want to be beautiful, want to look prettier, smell good, and attracting. It makes one prettier and boosts confidence, it can help to express personal image and taste, can cover facial skin problem, show respect from others, influenced and necessitated by work situation, and influenced by family and friends.

In this research brand name, product quality, price, promotion have an impact in characteristics of women purchasing decision. Women consumers are loyal if the product can fulfill their need or their requirement, or if the brand can give a satisfactory for them. Consumers are the center of the market, they will possibly have problem or trouble when purchasing a product because many variant product will present in different brand name, that the promotion will take place, advertising help consumers to have information about the product, personal selling can explain more about the product and then consumer have an open mind which one can respond of their requirement. Sometimes, there comes a time that consumers want to change and some help are required. Some consumers purchase just because of habit, they do not want

to waste time to search another one and search other information. Customer satisfaction is when the consumer meet the product that can fulfilled their need, if the product is compatible with them and it can fit perfectly with what are they looking for and the result of this is called repurchasing. Consumers have a little perception in brand name; it does not a matter of brand but about the quality. Almost of Indonesia people are Muslim if the product is not halal they will not purchase it and even does not allow by the government. If the consumer meets the product that they require, they will investigate on it, they will purchase it even it might costly.

REFERENCES

Anderson, E. and Sullivan, M. 1993. The Antecedents and Consequences of Customer Satisfaction for Firms. *Marketing Science,* 12 (2).

Bloemer, J, M, M. and Kasper, H, D, P. 1995. 'The complex relationship between consumer satisfaction and brand loyalty'. Journal of Economic Psychology, 16 (2), 311-329.

Peters, J.A. Shelton, J.B. Thomas. 2011. Self-concept and the fashion behavior of women over 50*", Journal of Fashion Marketing and Management: An International Journal*, 15 (3), 291 305

Copeland, M.T. 1923. *"Relation of Consumer's Buying Habits to Marketing Methods", Harvard Business Review*

Cosmetic (Online), (http://www.cekindo.com/sectors/cosmetics-in-indonesia.html access on 15th September 2016.

Farquhar, P.H. 1989. Managing brand equity. *Marketing Research*

Finansal Forum Magazine, "*Cosmetics Sector Special Issue*", July 28, 1997.

Henry, A. 2001. *Consumer Behavior and Marketing Action. 6th edition*. South-Western College Publishing.

Hoyer, W.D., Maclnnis, D.J. 2004. *Consumer behavior, (3rd ed)* Houghton Mifflin company.

Jacoby, J., and Kyner, D.B. 1973. "*Brand Loyalty Versus Repeat Purchasing Behaviour", Journal of Marketing Research*, 10

Kotler, P. 1991. *Marketing Management: Analysis, Planning, Implementation and Control*, New Jersey: Prentice Hall

Lau, M.M., Chang, M.S., Moon, K. & Liu, W.S. 2006. The Brand Loyalty of Sportswear in Hong Kong. *Journal of Textile and Apparel*, Technology and Management

Les marches des produits cosmetiques en Indonesie, (Online), (http://export. businessfrance.fr/001b1504065a+le-marche-des-produits-cosmetiques-en-indonesie.html access on 7th September 2016)

Les premiers pas, la construction des modeles. 1909-1956. (Online), (http://www. loreal.fr/groupe/histoire/1909-1956# access on 09 September 2016.

Lexy J. Moleong. *Metodologi Penelitian Kualitatif*. Pt Remaja Rosdakarya : Bnadung.

Light, L. 1993. Reinforce Loyalty to your 'Brand', Folio: the Magazine for Magazine Management, November, vol. 22

Nash, R., Fieldman, G., Hussey, T., Lévêque, J., & Pineau, P. 2006. Cosmetics: They Influence More Than Caucasian Female Facial Attractiveness. *Journal of Applied Social Psycholog,* 36 (2). 493-504.

Oliver, R.L., Whence consumer loyalty? Journal of Marketing, 1999, n° 63(4).

Rosenbaum-Elliott, R. 2011. Strategic Brand Management. 2nd Edition. Oxford University Press

Solomon, M., Bamossy, G. and Askegaard, S. 1999. *Consumer Behaviour, A European Perspective.* Prentice Hall: Europe.

Sugiyono. 2015. *Metode penelitian kuantitatif, kualitatif, dan kombinasi (mixed methods).*

Uncles, M., Dowling, G. and Hammond, K. 2003. Customer Loyalty and Customer Loyalty Programs, *Journal of Consumer Marketing*

Wardah, (Online), (http://www.wardahbeauty.com/en/about access on 15th September 2016.

A Survey on Students' Learning Styles and Strategies in a Rural Secondary School in Meradong District

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Abstract: Language learning strategies are steps taken by learners to enhance their own learning. This study aims to assess preferred learning strategies among students of a rural secondary school in Meradong district. The respondents were purposively selected to respond to the Young Learners' Language Strategy Use Survey which was developed by Andrew D. Cohen and Rebecca L. Oxford (2002). The data were collected and analysed descriptively. The study revealed writing strategies has the highest frequencies while vocabulary strategies is the least preferred strategy among the students. The findings and implication of this study may benefit ESL teachers and educators to enhance the effectiveness of English language teaching.

Keywords: learning styles, learning strategies, preference, rural secondary school

In recent year, there is a growing interest in investigating language learning strategies among second language learners. Language learners apply different and a variety of language learning strategies in acquiring a language. There are several factors that contribute to the variety of preference among second language learners. Differences in learners' proficiency level, motivation and cultural background are among the contributing factors. Hence, an initiative to discover the students' preference of learning strategies in language learning should be carried out.

Statement of Problem

English is a language that is widely used throughout the world plays an important role in equipping our young students with the necessary skill besides granting a greater access globally which will boost the growth of our country's economic development. However, there are still students who are unable to use English competently due to lack of interest and low proficiency level (Ghabool, & Author 2012). Students often regard English as a subject that is too difficult that they give up trying to accomplish the tasks given.

Research objectives/ Research questions

This research aims to discover successful language learning strategies preferred by students in learning English in a rural secondary school in. The insights that we will gain through this research will not only help the teachers to have a better understanding of students preferable strategies but also to be able to design suitable activities and materials according to the students' needs. This research requires two research questions:

1. What are the most preferable strategies among students in enhancing their skills in learning English?
2. What are the implications on teaching and learning of English?

LITERATURE REVIEW

Definition of Language Learning Strategies (LLS)

There are vast definitions of what constitutes a language learning strategies. Wenden and Rubin (1987) described language strategies as 'any sets of operations, steps, plans, routines used by learners to facilitate the obtaining, storage, retrieval and use of informations(Zare 2012). According to Weinstein and Mayer (1986), language learning strategies are behaviours or thoughts that a learner engages in during learning that are intended to influence the learner's encoding process(Hsiao, & Oxford 2002). In addition to that, Oxford (1990) further explained learning strategies as operations employed by the learner to aid the acquisition, storage, retrieval and use of information..., specific actions taken by the learner to make learning easier, faster and more enjoyable, more self-directed, more effective and more transferable to new situations(Hsiao, & Oxford 2002). Hence, in other words, learning strategies are tools that a learner use effectively in order to acquire a successful language learning.

Classification of Language Learning Strategies (LLS)

Oxford (1990) Classification of Language Learning Strategies

Oxford (1990) had developed a new language learning strategy system which includes two main classifications which is the direct and indirect strategies. Direct strategies are specific ways that involve use of language, sub-divided into memory, cognitive and compensation strategies(Lee 2010). Memory strategy which is for remembering and retrieving new information, are consist of four sets which include creating mental linkages, applying image and sounds, reviewing well and employing action(Zare 2012). Cognitive strategies which is for understanding and producing the language, are consists of four sets which is practicing, receiving and sending message, analysing and reasoning and creating structure for input and output(Zare 2012). The last subcategory of direct strategies is the compensations strategies. Compensation strategies enable learner to use the language despite knowledge gaps include two sets which is guessing intelligently and overcoming limitations in speaking and writing(Zare 2012).

Indirect strategies are strategies that do not directly involved using the language , but they support language learning(Lee 2010). Indirect strategies are divided into three subcategories which includes metacognitive, affective and social strategies.

Metacognitive strategies enables the learner to coordinate their own learning process by centring your learning, arranging and planning learning and evaluating own learning (Lee 2010). Affective strategies assist students to monitor their emotions, motivation and attitudes associated with learning by lowering anxiety, encouraging oneself and taking emotional temperature(Zare 2012). Social strategies is used for learning with others and are divided into three sets which is asking questions, cooperating and empathizing with others.

Rubin's (1987) Classification of Language Learning Strategies

Rigney (1978) and Rubin (1987) defined language learning strategies as behaviours, steps or techniques that language learners apply to facilitate language learning (Lee 2010). According to Rubin (1987), there are three types of strategies used by language learners that contributed directly or indirectly to language learning, namely learning strategies, communication strategies and social strategies(Zare 2012). Learning strategies are divided into two types which are the cognitive learning strategies and metacognitive learning strategies. Cognitive strategies are steps or operation used in learning that require direct analysis, transformation, or synthesis of learning materials ("Hismanoglu - Language Learning Strategies in Foreign Language Learning

and Teaching (TESL_TEFL)" n.d.). On the other hand, metacognitive startegies help to supervise, control or self-direct learning which involve different procedures such as planning, prioritizing, setting goals and self-management(Zare 2012). Communication strategies emphasize on the process of communication through conversation and getting meaning across. Then, social strategies exposed the learners to opportunities that can be a great help to practice their knowledge(Zare 2012).

O'Malley's (1985) Classification of Language Learning Strategies

O'Malley, Chamot and their colleagues (1987; 1985) divided language learning strategies into three main categories which are metacognitive, cognitive and socio-affective(Lee 2010). Metacognitive strategies refer to learners' planning their learning, thinking about the learning process, monitoring the own production and evaluating outcomes of their own learning(Lee 2010). Besides that, cognitive strategies refer to specific learning tasks which involve direct manipulation of the learning material (Zare 2012). Lastly, socio-affective strategies. In this strategies, learners are involve in social mediating activities and interaction with others. The main socio-affective strategies include cooperation and questions for clarification(Zare 2012).

RESEARCH METHODOLOGY

This research will use quantitative research design. According to Creswell (1994) a quantitative research is a type of research that explains phenomena by collecting numerical data that are analyzed using mathematically based methods(Sukamolson 2007).

This research will use a short questionnaires consist of 10 questions that focus on five language skills which is reading, writing, listening, speaking, vocabulary and grammar. The questionnaires were adapted from the Language Strategy Use inventory which was developed by Cohen, Oxford and Chi (2005). This questionnaires is supposed to be answered online but due to lack of internet access, the questionnaires have to be printed and distributed to the students.

This study involved 41 Form 2 students of a rural school in Meradong district. Meradong district is situated in Sarikei division and its capital is Bintangor. Bintangor has 4 secondary schools and SMK Meradong is one of them("Meradong District - Wikipedia, the free encyclopedia" n.d.). There are a total of 1656 students with majority of Iban ethnicity and small groups of Malays, Melanaus and the Chinese. Form 2 students are selected for this study because of their availability to the researcher. This sample were selected because they are not the candidates for any major public examinations such as Pentaksiran tingkatan 3 (PT3) and Sijil Pelajaran Malaysia (SPM). Besides, the samples are going to the same school as the researcher. Hence, it is quite convenient as the researcher was able to meet the samples on daily basis in order to observe the progress of the study besides being budget friendly to the researcher.

Sample

This research will involve forty Form 2 students from a secondary school in Meradong district. The students selected are of intermediate proficiency in English.

This research adopts convenience sampling as its sampling techniques. Convenience sampling is specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in the study (Methodology 2015). This questionnaires is supposed to be answered online but due to lack of internet access, the questionnaires have to be printed and distributed to the students.

First, the researcher gathered data by asking the students to fill the questionnaire which was adapted from Language Strategy Use Inventory developed by Cohen, Oxford and Chi

(2005). The questionnaire will be distributed to the selected ten students personally and the students are asked to return the questionnaire in a labeled box provided in the office.

FINDINGS AND DISCUSSION

The findings of this research will be discussed under five types of language skills which is listening, speaking, reading, writing and vocabulary and grammar. Discussion of strategies preferred by students will be further discussed in the discussion section.

Listening Skills

Table 1: What I do to listen more

STRATEGY	FREQUENT	SELDOM	NEVER
I listen to the radio show in the language	17	15	9
I watch TV shows in the language	27	9	5
I go to the movies that use the language	21	14	6

Table 2 : What I do to understand what I hear

STRATEGY	FREQUENT	SELDOM	NEVER
listen to important words	26	13	2
I listen for what seems interesting	22	12	7
I listen for words that are repeated	19	12	10

Table 3: Strategies to overcome difficulties in listening

STRATEGY	FREQUENT	SELDOM	NEVER
I ask the person to repeat	23	14	4
I ask the person to slow down	22	12	7
I ask a question	26	10	5

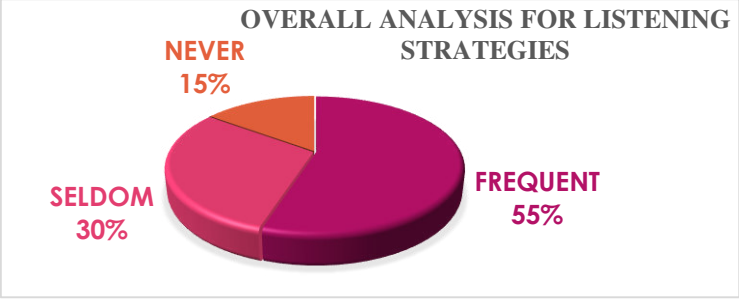

Figure 1: Overall analysis for listening strategies

Based on the Table 1, students were asked about what do they do to listen more. 66% or 27 out of 41 students preferred watching TV shows as their primary source of listening while movies and radio contributes 51% and 41% respectively. Listening to radio shows show the highest percentage of non-preferable source of listening with 22%. In Table 2, students were asked about what do they do to understand what they had heard of. 26 students or 63% of the students focus on the important words, 54% of the students pay attention to what seems interesting and 46% of them listen to repetitive words in order for them to understand. Then, in Table 3, students were asked about strategies that they used whenever they encounter problems

while listening. 63% of the students prefer to ask questions for a clearer idea of what the other speakers intended to say. 56% or 23 out of 41 of the students, prefer the speakers to repeat what have been said while another 54% of the students prefer the person to slow down. Based on Figure 1, 55% of the students frequently employ listening strategies and 15% of the students do not prefer listening strategies as their preferable strategies in learning English.

Based on my findings, I can conclude that TV shows are the main source of listening among students in SMK Meradong. This is because most of the participants are day schoolers so they have the privilege of watching television at any time than those who are staying in the hostel. The data also shows that the students tends to listen to important words and things that seems interesting rather than listening to repetitive words. This shows that the students strategically identifying the important and interesting parts rather than attempting to listen to the whole conversation in comprehending the message conveyed by the speaker or the media.

Besides that, students prefer to use social strategy whenever they face difficulties in listening in the language. According to Oxford's (1990), social strategies facilitate language learning through interactions with others as language is a form of social behaviour and learning it involves other people. These strategies are divided into three sets, namely as aking questions, cooperating and empathizing with others (Zare 2012). They do not hesitate to ask questions whenever they are unable to grasp the message or ideas conveyed by the speaker. This is a sign of a good language learner where they are able to find their own way and taking responsibilities for their own learning (Zare 2012).

Vocabulary strategies

Table 4: What I do to memorize new words

STRATEGY	FREQUENT	SELDOM	NEVER
I group the words by type	11	17	13
I match the sound of the new words with the sound of a word I know	16	21	4
I use rhymes to remember new words	12	20	9
I make pictures of new words in my mind	9	23	9
I write the new word in a sentence	21	15	5
I write the new word on a card	22	5	4
I go over new words several times at first	6	10	25
Later I go remind myself about words I learned earlier	28	5	8

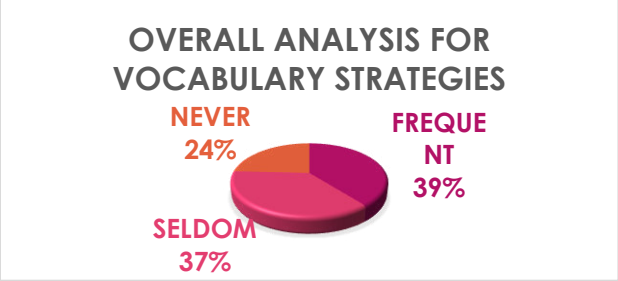

Figure 2: Overall analysis for vocabulary strategies

Secondly, is the vocabulary strategies. In this question, students are asked about what they do to memorize new words. Revision and writing new words on a card or in a sentence contribute the highest percentage for strategies frequently employed by the students for memorization. However, repetition is the least strategy preferred by the students as only 15% or 6 out of 41 students practiced it. Figure 2, 39% of the students frequently employ vocabulary strategies and 24% of the students do not prefer vocabulary strategies as their preferable strategies in learning English.

Based on the findings, it can be concluded that most of the students rely heavily on memory strategy to memorize new words. The students also prefer to experiment with new words. This shows that the students are not only able to find their own way of memorizing but also creative in enhancing their understanding and memorization of a new word or concept which is a criteria of a good language learner.

Speaking Skills

Table 5: What I do to practice speaking

STRATEGY	FREQUENT	SELDOM	NEVER
I make the sound of the language until I can say them well	17	15	9
I watch TV shows in the language	27	9	5
I go to the movies that use the language	21	14	6

Table 6 : What I do to talk with other people

STRATEGY	FREQUENT	SELDOM	NEVER
I start conversations	12	17	12
I plan what I am going to do	23	16	2
I ask the other person to correct me when I talk	11	23	7

Table 6 : What I do to talk with other people

STRATEGY	FREQUENT	SELDOM	NEVER
I ask the person to help me	34	7	0
I try to say it a different way	24	12	5
I use words from my own language	16	16	9

Figure 3: Overall analysis of speaking strategies

Based on the Table 5, students were asked about what they do to practice speaking. TV shows and movies were the most preferred medium employed by the students to practice their speaking skills. Both of the media contribute the highest percentage which is 66% for watching TV shows and 51% for movies. On the other hand, in Table 6, 56% or 23 out of 41 students prefer to plan what they are going to speak about beforehand. The data also shows that initiating a conversation is the least thing that they prefer to do where 30% or 12 out of 41 students never start a conversation. Next, all of the students will ask their speaking partners to help them whenever they encounter difficulties in speaking. 59% of the students tried to say it differently and 39% of them resort to their native language to overcome the difficulties.

From Figure 3, 49% of the students frequently employ speaking strategies in learning English while 36% of them seldom applied it and 15% of them prefer not to use speaking strategies to learn the language effectively.

It is not surprising when most of the students prefer not to be actively involved in a conversation as they might feel inferior to others who are more proficient than them. In Table 6, students were asked about how to overcome problems while speaking. Most of the students resort to ask for help from their speaking partners. Only 59% of the students tried to say it differently and 39% of them will use their mother tongue in overcoming problems while speaking the target language.

Based on the findings, it can be derived that most of the students employ social and affective strategies as their preferable speaking strategies. According to Stern (1992), learners may experience various feelings in learning another language. Good language learners are aware of these feelings and try to build positive feelings towards the foreign language and its speakers as well as its learning activities(Zare 2012). Affective domains are crucial in language learning as it involves a variety of personality factors, feelings about ourselves and about others with whom we come into contact with(Brown 2000). Most of the students did not learn English as their second language but as a foreign language. This makes the students feel inferior to use the language as they are afraid of making mistakes which leads to embarrassment. Hence, to overcome this situation, they favour to initiate the conversation by planning on topics in order to build their self-esteem. Once they have gained their self-esteem, students will voluntarily joined conversation with a more intricate and serious topic.

Reading Skills

Table 7: What I do to read more

STRATEGY	FREQUENT	SELDOM	NEVER
I look at pictures and what is under the pictures	17	15	9
I read things more than once	16	15	10
I underline parts that seem important	22	12	7
I mark the reading in different colours to help me understand	19	12	10

Table 8: What I do to understand what I read

STRATEGY	FREQUENT	SELDOM	NEVER
I read a lot in the language	20	18	3
I read for fun in the language	18	12	11
I look for things to read that are not too hard	20	13	8

Table 9 : Strategies to overcome reading difficulties

STRATEGY	FREQUENT	SELDOM	NEVER
I guess the meaning by using clues from other parts of the passage	11	11	19
I use a dictionary to find meaning	19	12	10

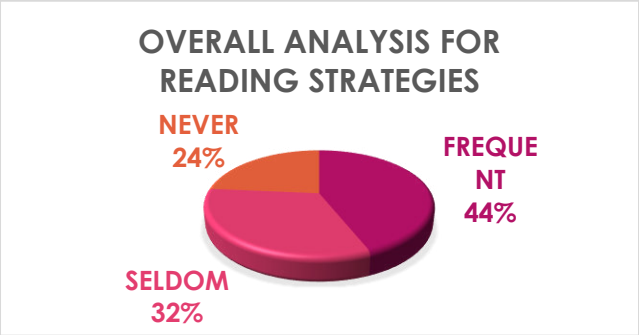

Figure 4: Overall analysis for reading strategies

In table 7, students were asked about what they do to read more and the results were quite interesting. 49% or 20 out of 41 students prefer to read English reading materials frequently and in which the articles are not too difficult. Only 18 or 44% of the students read in the target language for fun. Next, students were asked about what they do to understand what they read better which was shown in Table 8. 54% or 22 students tend to underline important parts while reading. 46% prefer mark their reading materials in different colours and 41% of them prefer looking at pictures while reading. Only 39% of the students prefer to read English reading materials more than once. Table 9 shows strategies frequently employed by the students to overcome reading difficulties. For strategies that the students employ in overcoming problems while reading in the language, most of the students prefer to use dictionary to have a better understanding of what they have read. Only 27% or 11 out of 41 students prefer to guess the meaning by using clues from the passage while reading. Figure 4 shows the frequency of using reading strategies to learn the language effectively. 44% of the students prefer to use reading strategies while 24% of them never use reading strategies to become a better English learner.

Based on the result, it can be concluded that students preferably use the cognitive strategies in tackling reading comprehension. Students tend to read a lot which suggests repetitive behaviour to improve their ability to learn or remember the materials. In addition to that, materials with lots of pictures in it, not only enhance their reading skills but also helps them to have in depth understanding of the materials. Students also prefer to underline important facts and rely on pictures to guide them while reading which shows that the students are field independence. According to Brown (2000), field independence is a learning style in which the person has the ability to perceive a particular or relevant item or factor in a 'field' of distracting items. It enables the person to distinguish parts from a whole, to concentrate on something and to analyze separate variables without contamination of neighboring variables(Brown 2000).

Writing Skills

Table 10 : What I do to write more

STRATEGY	FREQUENT	SELDOM	NEVER
I take class notes in the language	18	13	10
I write other notes in the language	17	16	8
I write letter to other people in the language	20	13	8

Table 11 What I do to write more

STRATEGY	FREQUENT	SELDOM	NEVER
I plan what I am going to write	27	10	4
I use a dictionary or glossary	35	6	1
I read what I wrote to see if it is good	27	8	6

Table 12: What I do to write better

STRATEGY	FREQUENT	SELDOM	NEVER
I ask someone for the word or phrase I want to write	27	7	7
I try to say it a different way	14	15	12
I use words from my own language	21	8	2

Figure 5: Overall analysis for writing strategies

Based on Table 10, 49% of the students prefer to write letter to other people in order to improve their writing skills. Taking notes in the target language is the least preferred strategy where only 24% of the students never practice it. In order for the students to write better in the target language, the results were quite interesting. Based on table 11, 85% or 35 out of 41 students to use dictionary. Students were equally divided into two strategies which is 60% for planning what to write and another 60% of the students proofread their written word. Last but not the least are the strategies used by students whenever they encounter any problems while writing in the target language. Based on table 12, 66% of the students favour asking for help from their friends while 51% of them favour using words from their own mother tongue. In Figure 5, 56% of the students frequently used writing strategies making this strategy is the most preferable strategies among five strategies involved in this study.

Based on my findings, the students preferably to employ metacognitive strategies to enhance their writing skills and social strategies in helping them to overcome the difficulties in writing. Students prefer to plan beforehand what they are going to write an essay. This shows that the students are aware of their own learning and exploit the most effective method or technique in order to overcome their shortcoming in writing. Besides that, students are matured enough to learn on their own by making self-evaluation by proofreading their essay before submitting it to their teachers. They ask their teachers of friends who are more proficient than them to help them to check errors and suggest ways to improve themselves.

Implications on teaching and learning

From the findings, there are three major implications can be derived. Firstly, most of the students are audio-visual learners. They prefer to listen and to see in order for them to understand better. As a teacher, I should integrate more English audio-visual media during lesson as it will helps to maximize the input of English among students without neglecting the fun and excitement that these media have to offer.

Secondly. social strategy is the most preferable strategies among students in overcoming their difficulties in language learning. Students voluntarily ask for help from teachers, friends and even strangers for further explanation, clarification and error checking in order to help them to be better in the target language. Hence, it is the teachers' responsibility to find methods or ways in order to expose them to a real life situation where they can utilize their skill maximally. Blog writing, video making and Facebook are among interactive activities that allow the students to write and talk with people around the world can be implemented in class.

Last but not the least, these findings benefit the teachers the most. Through these findings, teachers are able to discover the students' learning styles and strategies which is very crucial for a successful language learning. Teachers also gain some insights on how to tackle students of low proficiency level and at the same time enables the teachers to design activities and lesson plans that suit the students' need and fluency. The students also benefit from this project. Students are becoming autonomous learner by being aware of their own strength and weakness in language learning. They are able to discover the learning styles and strategies that benefits them the most and utilize it to maximize their learning experience.

CONCLUSION

As a conclusion, this research shows students apply various types of learning strategies in language learning. Hence, it would be wise for teachers to be aware of their students' preference in order to design materials and activities that will cater to the students' needs and proficiency level.

REFERENCES

Brown, H.D. 2000. Principles of Language Learning and Teaching. Language and language learning. Longman. Retrieved from https://books.google.com.my/books?id=8vPtAAAAMAAJ

Ghabool, N. & Author, C. 2012. Investigating Malaysian ESL Students ' Writing Problems on Conventions , Punctuation , and Language Use at Secondary School Level 2(3), 130–143. doi:10.5296/jse.v2i3.1892

Hismanoglu - Language Learning Strategies in Foreign Language Learning and Teaching (TESL_TEFL). (n.d.).

Hsiao, T. & Oxford, R. 2002. Comparing theories of language learning strategies: A confirmatory factor analysis. Modern Language Journal, 86 SRC - (3), 368–383.

Lee, C. K. U. O. 2010. AN OVERVIEW OF LANGUAGE LEARNING STRATEGIES 7, 132–152.

Meradong District - Wikipedia, the free encyclopedia. (n.d.).

Methodology, R. 2015. Convenience sampling - Research Methodology. Retrieved from http://research-methodology.net/sampling/convenience-sampling/

Sukamolson, S. 2007. Fundamentals of quantitative research Suphat Sukamolson, Ph.D. Language Institute Chulalongkorn University. Language Institute, 20. Retrieved from

http://www.culi.chula.ac.th/e-Journal/bod/Suphat Sukamolson.pdf\nhttp://isites.harvard.edu/fs/docs/icb.topic1463827.files/2007_Sukamolson_Fundamentals of Quantitative Research.pdf

Zare, P. 2012. Language learning strategies among EFL ESL learners a review of literature. International Journal of Humanities and Social Science, 2(5), 162–169.

Developing a Computer-based Interactive Module as Speaking Learning Materials for Primary School Students

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Abstract: In welcoming AFTA and MEA, Indonesia has to improve Indonesian youths' English communication skill to face the challenge of a more globalized academic and professional world. As observed, ELT practice in Indonesian schools gives less emphasis on the speaking skill compared to the others. It is then predictable that the students' English mastery tends to be passive instead of active. Here lies the gap between the need and reality. A speaking skill in a foreign language cannot be acquired in a short time. Hence, to prepare for high school graduates to communicate English well, an effective learning process must start early, at least from primary education. As by nature young learners have different characteristics from those of the older ones, the former need different methods and materials as well. Thus, English speaking material that is contextual, interactive, effective, and interesting for young learners is needed. The speaking learning materials developed in this research is a computer-based interactive module for primary students. Designed in the form of animation featuring animal characters, the themes were presented in dialogues as well as narrations whereas the speaking activities were designed based on language chunks accompanied with pronunciation practice. The module development up to the product dissemination is done within 2 years. The first year covered (1) need analysis survey, (2) product development (3) expert's validation; and (4) first revision. The second year activities will cover (1) product try out, (2) software effectiveness evaluation and second revision; (3) final product completion; and (4) product dissemination.

Key words: computer-based interactive module, speaking learning materials

Along with technology advancement, the role of English is getting broader, not only as a subject at schools as that in the past, but has been widening into all aspects of life. The swift of the global information also takes part in the development of the use of English throughout the world including Indonesia. English, which used to be avoided and even seen as a monster by many students, must be faced, heard, understood, and used in daily life. Though not used 100%, technical terms in English have been abundantly used in economics, politics, social media, culture, and, moreover, technology and medical world. The use of the words is not only limited to written technical terms, but also in spoken communication. Take for examples, the society now are quite familiar with and even often use expressions such as 'on the way' or 'by the way' even though usually abbreviated. Some others are like 'gatget', '*netizen'*, or *'on line.'* The use of English is much more in printed media and moreover, electronic.

Facing such a development and the ongoing Asean free market, educational institutions are required to prepare more competent graduates to be able to compete with the workforce from foreign countries. Moreover, the Asean Economic Society also opens Indonesian door more widely to welcome expatriate workforce.

Based on the 2013 Curriculum, there are two challenges for Indonesian students nowadays, the internal and external challenge. The internal challenge refers to 8 National Education Standards one of which is the graduates competence standard, while the first external

standard is communication competence. Hence, besides improvements in the competence, English communication skill is absolutely needed in this changing era. As identified by Indonesian Work Force and Transmigration Ministry, Indonesian local work force is qualified but lack in English communication skill. Hence, improving communication skill in English is a crucial need that must be fulfilled.

Communication skill in English cannot be achieved in a short time as learning a foreign language needs a relatively long process. It should, therefore, start early, at least from elementary education so that later the generation will have been ready to compete in the working field with their competence supported by their English communication skill.

Some Asian countries such as Korea and Taiwan have started English teaching to 3rd grade students of primary school and Japan even started it from kindergarten level (Mindari, 2012). As those countries, Indonesia has also started English teaching earlier as compared to that previously which started at grade 7. Since the establishment of the decision letter of Minister of Education and Culture No. 060/U/1993, which states that English could be taught at primary education starting from grade 4, may schools initiated it from grade 1. As a result, even kindergartens followed it.

However, according to the latest government policy as stated in the 2013 Curriculum, English at primary schools is now only an extracurricular subject taught once a week. Meanwhile, globalization is going on and as stated earlier, the need of English communication skill is increasing. In such a situation, a breakthrough is needed to help teachers at primary education to teach English effectively and attractively as well.

As what happens in foreign languages learning in general, if there is no serious attempt, the learners are only able to understand the language without being able to speak it. As mostly happen in Indonesia, after learning English for 6 years or more in the secondary education, students can only comprehend the language but not speak it. The particular condition and the need of English communication skill in the global era has challenged the research team to create a product that can assist primary school students in learning speaking English.

The success of a learning process is influenced by many factors. Those are teacher, students learning motivation, the teaching method, and the environment. This developmental research especially focuses on the material factor, which is closely related to learning activities.

Research on English material development for young learners so far has covered the four skills—listening, speaking, reading, and writing. The broad coverage provides a rich source of information but gives no sufficient concern on sharpening one skill. Referring to the need of communication skill in global era as explained before, the present research focuses on speaking skill to provide interactive exposure that sharpens speaking functional skills in English.

The learning material generated is computer-based interactive module as speaking learning materials for primary school students. The module was designed based on the principles of teaching a foreign language by considering young learners nature and characteristics. The material is in the form of animation using animals as the characters in the dialogues. The themes presented are of children's world so that it is expected that they will enjoy the learning process. The pleasant learning experience manifested through interactive activities with animation characters in the module gives the young learners a pleasant experience and motivates them in learning English so that the input will be more deeply internalized.

Research Problems

In line with the background of the study, the research problems are as follows:

1. The primary school students' English mastery in general is passive or understanding only, far from using it in communication
2. The speaking learning material has been covered in the textbook but not very effective.
3. There is a need of a special learning material to support English speaking skill in the form of computer-based interactive module which is designed based on the principles of teaching English to primary school students.

Research Objectives

This study aims at developing an interactive computer-based module of Speaking material for primary school students. The Speaking materials which physically presents in an audio visual colored animation with animal characters is expected to be liked by young learners. Meanwhile, the content, which was designed in short narrations and dialogues followed by some interactive and enjoyable learning activities is expected to arouse the students' interest and courage to speak in English on their age level.

Being provided with English speaking skill while they are still at the elementary education it is hoped that the students' interest and motivation in using English for communication will develop in accordance with their growing age and education so that later they will become a generation who are competent and able to communicate in English. Thus, they will have bigger self confidence and get more knowledge and experience. The soft skill, combined with their competence in their discipline, will be advantageous and supporting their competitiveness and existence in their career.

Research Significance

The research product, which is DVD of Speaking materials, can be used by primary school students to learn to speak English alone at home or with some friends in the classroom or anywhere as long as a computer is available.

By reading and listening to the narration as the introduction of each dialogue and then listening to the dialogue about a familiar topic in their life, they will not feel burdened but just like watching cartoons and without realizing it, a learning process is happening. In other words, they will undergo an enjoyable learning experience.

The interactive learning activities will train them to speak actively in English in an informal situation. Although designed for young learners, parents can also use the DVD to learn by themselves or together or to accompany their children studying.

How Children Learn Languages

Learning a language is identical with learning speaking in the language. Without neglecting the other three skills, one is said mastering a language if she speaks the language. Every child is provided with the ability to acquire his mother tongue. The device is known as LAD or Language Acquisition Device (Chomsky, 1965). By listening to the people around him speaking while interacting with him every day, a baby learns to understand, imitate, repeat, and gradually speaks.

Research that reexamined the role of imitation and repetition in learning language found that a child's first attempt in learning to speak is by imitating single words spoken by others. When the meaning has been attached, the child will speak the word more frequently, and then repeats it (Clark, 1978). On the next phase, the child will combine the words he has got in that way.

Their creativities can be seen in producing 'tegraphic speech' such as 'Mommy go', 'Daddy sit', atau 'Car go.' Parents usually respond to their child's telegraphic speech then the child will repeat it. That is a child's way of learning language.

Children also imitate short phrases that often accompany a certain situation. Through repeated imitations the phrases are learned and used as they are without being thought so that they are called '*formulaic utterances'* or '*unanalyzed chunks.'* As Pinter (2009) states, all English speakers use chunks or parts of utterances. There are two kinds of chunks, first, fully fixed chunks such as 'See you later' or 'What do you think' that are already completed and ready to use and, second, *partially fixed chunks,* that need completion like 'Have you got …?' or 'I think ….'

General Characteristics of Young Learners

By nature children have their own characteristics. The following points are children's common characteristics set forth by some experts:

1. They live in the imagination world (Halliwell, 1992; Slattery & Willis, 2001).
2. They like to play and learn maximally when doing enjoyable activities (Halliwell, 1992; Slattery & Willis, 2001, Scott&Ytreberg, 2004).
3. They can learn something indirectly *(indirect learning)* through activities. This also called *learning by doing*.
4. They have a big curiosity (Perry, 2001)
5. (http://teacher.scholastic.com/professional/bruceperry/curiosity.htm)
6. They will learn more effectively if the information input involves more than one sense (http://everydaylife.globalpost.com/senses-involved-childs-cognitive-development-2638.html)
7. Meanwhile, Brewster (2007) argues that children tend to be self oriented and busy with themselves, able to imitate something very well, and get bored easily. However, if attracted in something, they can concentrate for a long time.

Principles of Teaching English to Young Learners

To meet the natural characteristics of children, experts on English for Young Learners suggest the principles of teaching English to young learners. The following principles are suggested by McCloskey (2002):

1. Children should be given active and enjoyable roles in learning experience.
2. Children should be suppoted to develop and practice language through collaborations.
3. Multi-dimensional thematic activities should be used in order that they learn English expressively and they have an understanding that is more reinforced by those various activities in the theme.
4. Comprehensible input is given by giving assistance so that children can reach a higher achievement.
5. Language that is integrated with the content makes them learn meaningfully so that they have better comprehension and a longer retention.
6. The mother tongue should be strengthened and integrated with the culture.
7. Clear objectives must be decided to direct the learning process, while the inputs for the children's performance will increase their language skills.

Social-interactionist View

Some psychology streams view the relation between the process of first language acquisition and that of foreign language. One of them is social-interactionist stream that emphasizes the importance of interaction in language teaching process. Vygotsky in the thirtiest proposed Zone of Proximal Development (ZPD). He believed that in learning something, children will be able to reach a higher achievement with the help of someone who is more knowledgeable. Holding this as the principle, teachers can help and at the same time give challenge to their students through well planned assignments. This idea was supported by Brunner (1938) who showed that without the help of an adult, or scaffolding, LAD cannot function maximally.

RESEARCH METHOD

The learning material, which is **a** computer-based interactive module as Speaking learning materials for primary school students was developed based on Hyland (2003)'s idea that covers (1) conducting a survey, (2) developing the material, (3) experts' validation, (4) first revision, (5) product try out, (6) second revision, (7) generating the final product, and (8) dissemination.

To see the whole process of the material development, a fishbone diagram (Figure 1) is presented below. Basically there were 8 main steps as elaborated above, but in details, the survey had two purposes, first to elicit data about the need of the product and second, to select topics needed to teach Speaking to elementary school students. The data collection was done by using questionnaires and an interview. Besides, the research team also studied the topics in a number of English textbooks and syllabus for primary school students.

The material development covered the elaboration of each topic into dialogues and short narrations, creating the moving animation, dubbing for each character in the dialogues, and putting the music illustration. For product validation, two experts in Teaching English to Young Learners who are experienced in developing materials were involved.

From the preliminary observation about the speaking ability of the seventh graders, the research team found that their English speaking ability on the average was very limited. They rarely communicated naturally in English. They only spoke English when they got their turns to answer questions in the book or from the teacher. Another chance was when they were asked to read a text aloud by the teacher. This fact indicates that the speaking ability of the students of their lower level, the elementary school students in general was also minimal although there must be some exceptions. This could be influenced by the low or even the absence of motivation, the lack of opportunity and courage, or an uninteresting learning material.

Product Development Stage

At the beginning the researchers made a need analysis by using questionnaires distributed to teachers of English at some elementary schools in Surabaya. From the result of the questionnaires, the research team got the inputs about the need of the product, topics, and format of the Speaking materials for elementary school students grade 1 up to 6.

Based on the inputs, the topics were compared with the topics in the syllabus to find the similarities as the base of topic selection. As has been mentioned previously, the material development covered the elaboration of each topic into dialogues and short narrations, creating the moving animation, dubbing for each character in the dialogues, and putting the music illustration.

The Identified Speaking Topics Needed

Based on the gathered results of the questionnaires, the topics needed for Speaking materials in elementary schools were elicited as follows:

THEME CATEGORY	TOPIC
Me and Myself	My Birthday
	Parts of the Body
	What's your Hobby?
	My Diet
Home and Family	My Family
	My House
	My Daily Activities
	This is my cat.
	My Pet
	My Unforgettable Holiday
Places	My Classroom
	At the Dentist
	At the Zoo
	At the Supermarket
	At the Restaurant
	My Beloved City
Nature	My Environment
	It's raining now!
	Weather
Social Life	My Friends
	Playing Games with Friends
	What's on TV?
	I want to be …
	Adventure

The Format of Learning Activities

There are some format designs for computer-based English modules, however, in this research, the format used is the one that encourages the users to speak English. It starts with a short narration to introduce the topic, then it is followed by a dialogue that uses certain language chunks. The language chunks will then be imitated by the learners in a pronunciation exercise. Later, the learners will interact using the expressions they have heard and imitated. At first, the interaction is done by responding to questions asked by a certain character in the video. From the experience of interacting with the character in the module, the learners are expected to use the expressions with their peers in their daily social activities.

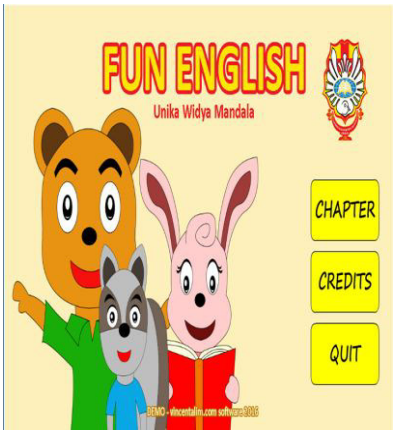
The Topic and Learning Format Selection

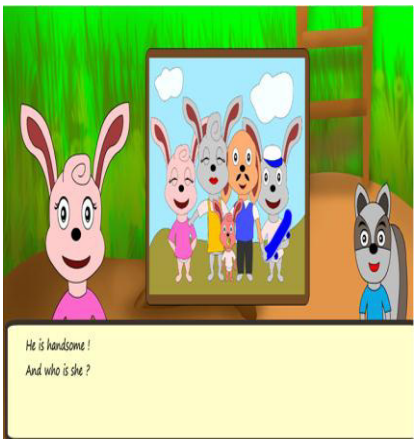
From the gathered topics as presented in the table above, after being selected, some that were really needed and interesting for young learners were chosen and graded as follows:

NO.	TOPIC	LEVEL
1	My Family	As the prototype of material for Grade 1
2	Vegetables	As the prototype of material for Grade 2
3	Parts of the Body	As the prototype of material for Grade 3
4	What's your hobby?	As the prototype of material for Grade 4
5	My daily activities	As the prototype of material for Grade 5
6	Adventures	As the prototype of material for Grade 6

The Product Physical Performance

The screen shots below are the samples to show the physical appearance of the Speaking materials developed in this research:





CONCLUSION

The applied product research is an attempt to enhance ELT in elementary level of education especially focusing on Speaking skill. From the exposition it could be concluded that the plan and design of Speaking material for elementary school students have been put into realization as seen in the result, a computer-based interactive module as Speaking material for elementary school students. The module that was created based on the principles of teaching English to young learners that considers their characteristics is in the form of moving animation using animals as the characters in the story as well as dialogues. The themes as well as topics presented are suitable with children's world so that it is expected the students will enjoy the learning process. The learning situation in interactive activities with the animation characters in this module gives a pleasant learning experience to the young learners and thus, it is hoped to encourage them to speak English in simple oral communication according to their age. To improve the product, two experts of material development specialized in English for young learners from Sanata Dharma University Yogyakarta gave their valuable feedbacks on the physical appearance as well as the content of the product.

REFERENCES:

Borg, W.R., & Gall, M.D. 1989. *Educational research*. New York: Longman.

Brewster, Jean cs. 2007. *The Primary English Teacher's Guide*. Edinburg Gate: Pearson Education Limited

Bruner, J. 1983. *Child's Talk: Learning to Use Language,* New York: Norton.

Chomsky, N. 1965. *Aspects of the Theory of Syntax*. MIT Pess.

Clark, E.V. 1978. Strategies for communicating. *Child Development 49*, 953-959. Reprinted in: AK.

Pugh, V.J. Lee, & J. Swann (Eds.), *Language and language use*. London: Heinemann Educational Books, 1980. Pp. 164-174.

Halliwell, S. 1992. *1992. Teaching English in the Primary Classroom*. Harlow: Longman.

Hyland, K. 2003. *Second Language Writing*. Cambridge: Cambridge University Press.

McCloskey, M.L. 2002. *Seven Instructional Principles for Teaching Young Learners of English.* www.mlmcc.info.

Mindari, R. 2012. *How Kindergartners Learn to Speak English*. Dissertation

Perry, B.D. 2001. Emotional Development: Curiosoty-The Fuel of Development. *Early Childhood Today*: March, 2001 issue.

Pinter, A. 2009. *Teaching Young Language Learners*. Oxford: Oxford University Press.

Pramono, H. 2012. Developing Interactive Multimedia Software for English Learning. *Magister Scientiae*. ISSN: 0852-078X Edisi No. 32-Oktober 2012

Querales (http:// digitalcommons.brockport. edu/cgi/viewcontent.cgi?article=1398&context=ehd_theses. Retrieved on April 20, 2015.

Scott, W.A & Ytreberg, LH. 1994. *Teaching English to Children*. New York: Longman

Slattery, M. & Willis, J. 2001. *English for Primary Teachers*. Oxford: Oxford University Press.

The Implementation of Edupreneurship Based on Local Wisdom in Primary School as an Effort to Prepare Indonesian Golden Era

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Abstract: Edupreneurship based on local wisdom was considered as a solution for answering global challenges in primary schools to prepare golden generation. This concept is expected to form productive character, capable of creating chances, like challenge, self-contained, and having the unyielding spirit as an entrepreneur. This concept does not make students as an entrepreneur or a humanist, but to make student an entrepreneur who love Indonesian culture. But it could not be neglected if in the future there will be students who want to be an entrepreneur. Theoretically there is only little number of sources that examines this concept, practically it started to be implemented in the Primary School Pilot Laboratory UPI Tasikmalaya as one of teaching center in Tasikmalaya. Therefore, researcher tried to assess the development and shape implementing this concept through a descriptive qualitative research. Triple Helix ABG (Academician, Businessmen, and Government) approach was believed as the most appropriate way to realize this idea. Triple Helix ABG approach became connector between academicians (Intellectuals), creative business people (Businessman), and government (Government) to implement Edupreneurship based on local wisdom. A relationship, mutual support, and symbiotic mutualism between these three actors will determine the improvement of primary school quality to be solid, sustainable, and able to answer the challenges of globalization to prepare Indonesian golden era.

Keywords: edupreneurship based local wisdom, triple helix approach abg, indonesian golden era.

In the period of 2012 to 2035, our nation is blessed many potential human resources in the form of productive age population by God the Almighty. During that period, the next generations are in a very productive and valuable situation, therefore they need to be managed and utilized properly so that they become good, intelligent, competitive human, as well as a valuable demographic dividend, but if this demographic dividend cannot be managed properly it would be endanger Indonesian development. This is why the strategic role of education development to realize that goal is considered to be very important.

We certainly have a great expectation to our next generation today, to be a golden generation and bring progress and glory for Indonesia in the Indonesia first century. But whether it could be achieved or not still be a big question for us. Because of the demographic dividend can turn to be a demographic disaster without regular supervision and control from the government. Therefore we need a comprehensive effort from all sectors, especially in the field of education. One of education sectors which have a strategic position in facing the golden generation of 2045 is the Primary School. Educational success is determined by the success of children in primary school. Characters built in primary school will be easily formed and attached until they become adult.

According to Piaget (in Budiamin et al., 2006: 98) it is stated that;

"Kids in primary school age are mostly in the operational phase of the concrete, which means that the characteristics of primary school children are characterized by reversible idea, began to confirm certain thoughts, adaptation of the whole picture, look at an object from different perspectives, able to do systematic ordering, and has causality thoughts".

Based on the statement above, it could be concluded that the children in primary age is the right age to plant good character and it will become an efforts in facing the golden era of Indonesia. Character that can be trained to set up a golden generation of 2045 is Edupreneurship based on local wisdom.

Edupreneurship based on local wisdom is expected to form the character of students to be more productive, able to create chances, challenging, independent, and has a strong character to be never give up on failure that usually faced by local wisdom entrepreneurship. This concept not only wants to make the learner as a creative industry entrepreneur, but also as entrepreneurs who love the local culture. But it could not be avoid if in the future the students want to be entrepreneur.

In the process of Implementing Dasarom edupreneurship based on local wisdom, it takes a comprehensive and synergistic effort of all stakeholders through the Triple Helix ABG (Academician, Businessman, and Government) approach.

METHODOLOGY

Types of Research

This research is descriptive research with a qualitative approach, namely: Research procedures that produce descriptive data in the form of written words from the people and observed behavior, supported by literature or literature study based on the deepening study of literature in the form of data and figures, so that reality can be understood (Moloeng, 1990, p.5). This study emphasizes to explore and clarify phenomenon or reality happened conceptually.

Techniques and Writing Procedures

Technical writing was done by understanding or exploring some of the data so that it can provide a description of the problem being analyzed. The Writing Procedure of this paper is: (1) Identify the problem; (2) find a reliable source of data; (3) writing outline was designed systematically and coherently; (4) literature review was supported observations (5). Paper was analyzed-synthesized, conclusions and recommendations.

Techniques and Data Analysis

The data collection technique used was the literature study and semi-structured observation. The data was obtained from several media, both printed and electronic media, as well as through an observer in the Primary School Pilot Laboratory UPI Tasikmalaya. After the data had been collected, data processing was done. Then it was analyzed to be interpreted in the form of descriptive statements and concluded.

Development of Edupreneurship Based on Local Wisdom in Primary School

The implementation edupreneurship based on local wisdom in primary school considered as attempt to prepare Indonesian golden generation. Edupreneurship based on local wisdom is expected to form the character of students to be more productive, able to create chances,

challenging, independent, and has a strong character to be never give up on failure that usually faced by local wisdom entrepreneurship

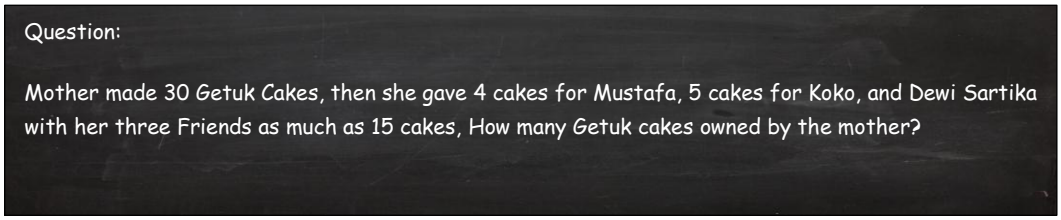
This concept not only wants to make the learner as a creative industry entrepreneur, but also as entrepreneurs who love the local culture. But it could not be avoid if in the future the students want to be entrepreneur. Local wisdom is regarded as the proper basis as an anticipation of the possibility of negative effects on the global challenges in the future, so that it is hoped that local wisdom values can be an identity for Indonesia that differentiate it with other nation. The values of local wisdom are also believed to be more accepted by learners because it is closer to the environment in which learners live. Local knowledge at least has become part of their selves, so that learners already have had relation to such wisdom. They tend to easily obey the rules and customs of the society.

One of the goals of education is to ensure there is cultural inheritance from one generation to the next generation. Therefore, edupreneurship based on local wisdom could be a solution to shape the local culture character of Indonesia, but they can participate in global competition. Thus they are hoped to be able to turn threats into solutions, challenges into opportunities, face problems wisely, and be ready to become a golden generation in 2045.

Theoretically, there is insufficient resources that discussed the Dasarom edupreneurship based on local wisdom, but in practical, this concept started to be implemented in the Primary School Pilot Laboratory UPI Tasikmalaya as a school which upholds the values of local wisdom as its educational foundation. Therefore, edupreneurship based on local wisdom was expected to be a solution in preparing Indonesian golden generation. In the implementing process, edupreneurship based on local wisdom was integrated with formal and informal curriculum, so that it has implications for intracurricular, cocurricular, extracurricular learning and the school room display (arrangement of the room).

The Implementation Edupreneurship based Local Wisdom in Intracurricular Learning

In intracurricular learning, Edupreneurship based on local wisdom was integrated with all the components include the development of subjects. One of the examples is in the evaluation question development below.



picture 2.1 Example of Question

The evaluation question above, at first glance there will be no difference with the questions in general, but when examined closely there is clearly implied meaning contained in that question, for example, the word "made" means that mother has a “productive” character since she made her own. Of course it will be different if the question use the word “buy” instead of “make” that has meaning as a consumptive attitude, and it will change the students paradigm to be familiar with productive rather that consumptive attitude, besides it also includes the word "Getuk" as a traditional cake of West Java. Besides, there is the word of "Mustafa, Koko and Dewi Sartika" which indirectly introduce influential figures in West Java, such as Mang Koko as Sudanese pop music pioneer, KHZ. Mustafa is a national hero from Tasikmalaya and Dewi Sartika as women emancipation hero in West Java. Thus, in this context, students are not only

proficiently answer math questions but also intelligently interpret the editorial words that change their thinking to have a better personality based on the concept of edupreneurship based on local wisdom.

The Implementation Edupreneurship based Local Wisdom in Cocurricular Learning

Cocurricular activities are a practical activity as a form of followed-up of the intracurricular implementation cocurricular learning could be in the form of educational games, Project Based Learning (PBL), study tours, and others. One example of edupreneurship based on local wisdom implementation in cocurricular learning is a PBL program by visiting educational tourism place such as webbing factory in Tasikmalaya to socialize and consolidate Indonesia local product that represent Indonesian culture. In the process, learners are given a series of practical tasks to perform basic webbing techniques.

Development edupreneurship based on local wisdom in learning curricular can also be done by developing traditional games as learners are invited to learn game such as congkak, egrang, galah, ect and other innovation traditional games that create effective and joyful learning.

The Implementation Edupreneurship based Local Wisdom in Extracurricular Learning

Edupreneurship based on local wisdom could be developed through extracurricular activity. It can be implemented through excellence programs designed based on the potential benefits of the local area. Example of extracurricular programs developed in Primary School Pilot Laboratory UPI Tasikmalaya as a school that implements the concept of Edupreneurship based local wisdom are Creativity Class, local wisdom-based hydroponic garden, Kaganga Training, ASIK writing poster (Asli Tasik) and others.

In the process of implementation it can be directly assisted by the creative industries through collaborative teaching methods. The students' productions are expected to have sale value, so that learners can be taught to be able to produce, market the product, and make money from their own creation. Besides it is hoped that they can maximize the potential of their surroundings. The an example here will be presented the student production by utilizing newspaper and a tea cup in figure 2.2.

Figure 2.2 Examples of Student Production

The Implementation Edupreneurship based on Local Wisdom in School Room Display

School Room Display is one of interpretation of informal curriculum that directly or indirectly has an impact on the student's character. In implementing Edupreneurship based on local wisdom, every part of space in schools should represent a creation of school of culture; this can be done by putting up local wisdom – based posters/ pictures, or by attaching the local

words of wisdom. For example: *hadé gogog hadé tagog, cikaracak ninggang batu laun-laun jadi* legok and other words of wisdom.

Figure 2.3 Edupreneurship Based Local Wisdom Posters

Optimizing the Role of Stake Holder: Triple Helix ABG Approach

The implementation of edupreneurship based on local wisdom requires the collective efforts of various parties in a synergistic and comprehensive way. Triple Helix ABG (Academician, Businessman, and Government) approach is believed to be the approach that is able to implement this idea by optimizing the role of academician, businessman, and government.

The three helixs are the main factor of creativity, ideas, science, and technology that are vital for implementing edupreneurship based on local wisdom in primary school. A close relationship, mutual support, and symbiotic mutualism between all three actors will determine the integrity of the school in preparing Indonesia golden generation. Every helix has the capacity and the different entities, but have the same workload in carrying out its role

Academician

Academician in primary consists of teachers, principals, and school committee and education council. Each academician is expected to be able to actualized their potential and competence to achieve Edupreneurship based on local wisdom in accordance with the standards of teachers and education stated in UU No 14 Tahun 2005 About Teacher and Lecture, PP No.19 Tahun 2005 About the National Education Standards, Permen No. 13 Tahun 2007 About Standards for School, and Permen No. 16 Tahun 2001 About Academic Qualification Standards and Teacher Competency.

Concrete effort that could be done by the academician in realizing this concept is by conducting Curriculum Development Team (TPK), which consists of teachers, principals, school committee, and other educational experts (supervisor / lecturer / team of curriculum experts). Then TPK begin to design/revitalize and integrate edupreneur-ship based local wisdom character with the curriculum (Book 1 or Documents 1).

Businessmen

The implementation of edupreneurship based on local wisdom in primary school needs the businessman role to train the entrepreneurship skill to students and tell their experience as an entrepreneur. So that students are able to directly learn the values of being entrepreneur from the real businessmen. It is because of cognitive theory from Piaget that stated learners in the age primary are in the operational phase of the concrete meaning, they only able to translate everything / input information through concrete objects. It also became the basis urgency why

of industries should directly took a part in implementing edupreneurship based on local wisdom in primary school. This concept can be done through collaborative teaching methods, so that businesses can be directly taught in the classroom. This activity can be integrated in a self-development program in the school, so that the implementation is in the agenda once a week / month one, but can also incidental adjusted to the circumstances of the school.

Government

Government, as regulation holder and policy maker should contribute to implementing edupreneurship based on local wisdom in primary school, concrete efforts that could be done by the government to realize this concept are:

1) Optimization of Policies issued by The Government.

Optimizing the content standards stated in Permendiknas No. 22 Tahun 2006 for KTSP and permendikbud No. 22 Tahun 2106 for K13 should be done by al education institution. Because the government has provided the clear material structure of the curriculum, so that any educational institution has its own authority to make creation n curriculum development programs applied in one or Documents1/ Book 1 including the concept of local wisdom based edupreneurship. This concept can be integrated in the development of learning in the classroom, local content or self-development program.

2) Issued a Circular as Reinforcement.

In order to be possible to implement in primary school, the government should issue a circular regarding with the urgency of edupreneurship based on local wisdom as an effort to prepare Indonesian Golden Era.

3) Held a Symposium, Seminar, or Workshop

The government can facilitate the symposium, seminar or workshop for primary school who have implemented this idea as training for other institution.

CONCLUSION

Edupreneurship based on local wisdom is a new concept. Theoretically there is only few numbers of sources that examines this concept, practically it started to be implemented in the Primary School Pilot Laboratory UPI Tasikmalaya as schools that uphold the values of local wisdom in running the development of learning. This concept requires a collective synergistic effort from all stake holders. Triple Helix ABG (Academician, Businessman, and Government) approach is believed to be the approach that is able to implement this idea by optimizing the role of academician, businessmen, and government. The three-helix is the main factor of the birth of creativity, ideas, science, and technology which are very vital in Implementing edupreneurship based on local wisdom in primary school. A close relationship, mutual support, and symbiotic mutualism between all three actors will determine school integrity in preparing Indonesian golden generation.

REFERENCES

Kadiman, K. 2005. *The Triple helix and The Public.* Presented in Balanced Perspective in *Business* Practices, *Governance, and Personal Life* seminar. Jakarta

Lila 2013. *http://lilawatyy95.blogspot.co.id/2013/01/pentingnya-kearifan-lokal.html* [January, 16th 2013].

Sadulloh, U. 2009. *Filsafat pendidikan.* Bandung: Alfabeta.

Sitompul, A. 2015. Menyiapkan Generasi Emas Indonesia Dengan Pendidikan Berkualitas. [Online].
Retrieved from: http://www.radarbangka.co.id/rubrik/ detail/persepktif/11423/menyiapkan-generasi-emas-indonesia-dengan-pendidikan-berkualitas.html
Sugiyono. 2012. *Memahami Penelitian Kualitatif.* Bandung: Alfabeta
Sunaryo. 2012 Pendidikan Harus Antarkan Generasi Emas Indonesia [Online]. Retrieved from**:** http://www.ispi.or.id/2012/11/02/prof-sunaryo-pendidikan-harus-antarkan-generasi-emas-indonesia-2045.
Suyitno. 2011. *Pengembangan Industri Kreatif Mandiri melalui Pogram Pendampingan Berbasis Local Wisdom: Pendekatan Triple Helix ABG.* Bandung: UPI (Unpublished)
Suyono. dan Haryanto. 2012. *Belajar Dan Pembelajaran*. Bandung: PT. Remaja Rosadakarya
Syarifudin, T. 2010. *Landasan Pendidikan.* Bandung: Percikan Ilmu

Strategies Of Students In Completing Cross-Section Task Of Mathematics Spatial Visualization

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Abstract: Spatial visualization required so a person's thoughts can be communicated to others. The purpose of this study is to describe the strategies students in completing the task of determining the geometrical cross section cut by one plane. The subjects of this study are five students in the fifth grade of elementary school. These students are required to predict the two dimensional cross-section when a simple geometric solid is sliced by a cutting plane. There are three simple geometric solid, namely spheres, cones and cylinders. The results showed that the emerging strategy is imagistic and analytic strategies. Imagistic strategy refers to (1) encoding the spatial characteristics of an object such as shape, position and orientation in the field of cutting, (2) students imagine slicing object and mentally moving it to focus on a form field pieces and (3) represents a cross section geometrical of the object cut through orthogonal orientation based on their position on the surface of the cut. The analytic strategy is characterized by comparing two stimuli, such as comparing the shape of a circle with a pad on a cone.

Keyword: spatial visualization, cross-section, imagistic, analytic

Spatial visualization was useful for learning geometry (Gecu, 2015; Wai, Lubinski and Benbow, 2009). Spatial visualization is the ability to understand the forms of spatial and to show step by step folds or mental rotation (Wang and Carr, 2014). In geometry, the object being studied is the space. Space is an image of spatial and strategies are needed when students are dealing with spatial image (Ho, Lowrie and Ramful, 2013).

Mathematical problems related to spatial visualization can be completed by students using strategies imagistic or analytic strategies. This strategy can be used simultaneously and can also be used separately (Cohen and Hegarty, 2014). Imagistic strategies can be used to solve mathematical problems when using imagery associated with the shape, position, orientation and perception in general (Ho, Ramful and Lowrie, 2013). Analytic strategies used to resolve visually when using explicit steps to resolve it (Ho, Ramful and Lowrie, 2013, Cohen and Hegarty, 2014).

Imagistic strategy or also called as a visual strategy is a strategy that consists of three steps, namely capture, encode and represent the object being studied (Cohen and Hegarty, 2014). On the task of completing the three-dimensional cross-sectional sliced by a plane, Cohen and Hegarty (2014) states that the first step is carried out with imagistic strategy is to encode the spatial characteristics of an object such as a solid shape in geometry and orientation on the cut plane. The second step is the students visualize the cutting object and moving parts are cut off so the focus among people who are viewed with objects that have been cut. The next step is to make the shadow of orthogonal orientation of the cutting object.

Analytical strategy can be done by comparing the two stimuli. Research by Cohen and Hegarty (2014) concerning the cross-section of cutting the object with plane, stimuli used is cones, cubes, tubes, prisms and pyramids. Ho, Ramful and Lowrie (2013) stated that the analytic strategy that appears in the reflection problem, namely the use of the properties of the

object while working on reflection; find the line of symmetry or at the time of constructing symmetrical objects. This study aims to explore strategies that made the subject at the time of completing geometry problems and difficulties that arise when solving problems of geometry.

METHOD

Subjects in this study were five students in fifth grade of elementary school. Subject coded as S1, S2, S3, S4 and S5. Subjects are given a problem to determine the cross-sectional shape of the three dimensional space that sliced using a flat plane. The three dimensional space in this study are spheres, cones and cylinders. Cross-sectional shape provided in a choice of four answers, students were asked to circle the two dimensional areas is possible. Figure 1 is an example of cross-sectional slices problems between the spheres with a flat plane.

Previous students have been learning about cubes, blocks, cylinder, sphere and cone. They learn about their characteristics, cube nets, and determining their volume. Upon completion of the issue, subjects were interviewed to obtain information of their strategy to solve the problem of completing cross-sectional. The task of completing cross-sectional taken from Santa Barbara Solid Tests.

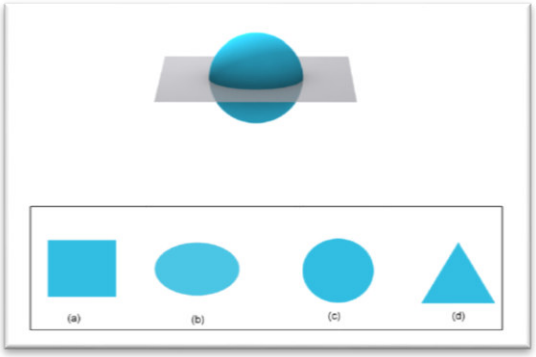

Figure 1: Setting instruments sectional ball is sliced by a flat surface

In resolving the problem of determining the cross section, subjects were given a chance to finish in a maximum time of 15 minutes. Subjects were given the opportunity to check and repair the answer choices when deemed incompatible with the cross-sectional shape mentally visualization. Before starting the decisive cross-section, first submitted that the geometrical cut is solid shaped. While the resulting cross-section is a cross section orthogonal to the area of intersection. As an illustrative example is given in the form of sliced watermelon, after being sliced students are asked to describe the cross-sectional shape when viewed perpendicular to the direction of the slices. All subjects can tell that the cross-section is formed with a circular red color in the circle area and greenish-white color in the area around the red circles. After making sure all the subjects understood the rules of the problem, the subject is welcome to resolve the problem of determining the cross-section.

Result and Discussion

The five subjects solve all the problems within a period of 15 minutes. After resolving the five subjects were interviewed separately. The problem of determining cross-sectional slices of geometrical completed five subjects is shown in Table 1. Table 1 is the result of spatial visualization subject to the problem of determining the cross-section. Seen in S4, cone sliced

cross-sectional shape with a flat surface changes, from the triangle to be a triangle shape with a semi-circle.

Table 1. Result of Cross-Sectional

Subjek	Sphere	Cone	Cylinder
S1			
S2			
S3			
S4			
S5			

Table 1 also illustrates that subjects tend to choose the same answer, especially S1, S2 and S3. The S4 and S5 tend to choose the same cross-sectional shape in cross-section when solving sphere and cylinder.

Determination sectional sphere is sliced by a horizontal plane, produces two forms of ellipses and circles. According S3 elliptical cross-sectional shape as a circle seen from the side, not perpendicular to the plane of intersection. Here are the results of interviews with S3 associated with the options on the elliptical.

Obs : Is this the result of the cut?.
S3 : yes Mom (pause) ... It's an ellipse.
Obs : why selected the ellipse?
S3 : the sphere is sliced like this (while demonstrating a flat, cut the sphere by hand), when viewed from here, it is a elliptical shape (while demonstrating the paper in front of her face).

Determination of the cross-section between cone with areas of flat, two-dimensional plane that has been chosen is a form that is a combination of a triangle with a half circle (see table 1). Subject S4 initially chose a triangular shape, but he decides to change his answer with a cross section combination of a triangle with a semicircle. The reason of S4 is to replace his choice because he is doubtful with a triangular shape. He thought that the triangle does not form a cone. Of the five subjects, the S5 looks very unsure of the answer is that the triangle as a cross-section shape with a flat surface.

The third issue is the determination of cross-sectional slices of the cylinder with a flat surface vertically. The fifth subject determines the form of cross-section is a combination of a

semi-circle at the top, rectangular and half-circle at the bottom (see table 1). The first subject (S1) presents the results of his reflection in order to obtain cross-sectional shape chosen.

Obs : why this form is selected (while pointing at the selected answer)
S1 : the top and bottom of the tube continues its center circle cut if I become a rectangle, if combined right so this picture (pointing choice answers)

Unlike the S1, S3 said that the selection of cross-section shape by comparing what has been learned from previous netting of the cube. He said that the cube is formed by six square. Netting is based on a cube; he concluded that the cylinder consists of three forms so that when cut also produces three flat wake that when put together will form a flat wake as it chooses.

Strategy in solving the problem sectional slices of geometry with a flat surface

The strategy resulted in the determination of the cross-sectional slices of geometry with flat areas are grouped into two categories, namely imagistic strategy and analytic strategies. **Im** code on a transcript of the interview showed the subjects were using imagistic strategy, while the **An** code indicates the subject is using an analytic strategy.

Imagistic strategy appears when the subject S2 resolve cross-section of the sphere is sliced by a flat surface horizontally. Here's a transcript of an interview between the observers with S2.

Obs : tell me how you get a cross-section between spheres with a flat surface
S2 : mmm, first I imagine a ball there, continues to exist a kind of paper (Im1) . Paper was used to cut the ball just right in the middle of the ball become two pieces... mmm ... yes two (Im 2). Then ... mmm if separate on the middle invisible (Im 3).
Obs: what looks like?
S2 : look like ... mmm ... that is a circle. Yes a circle.

Imagistic strategy of the student when is solving cross-sectional slices geometry with a flat surface. Imagistic strategy done in three steps: (1) imagine geometry (spheres, cones and cylinders), (2) given the physical characteristics that are important from the space, and (3) imagine the space cut with paper (paper representing the horizontal plane) and move it so imagine the result of cuts.

Analytical strategy appeared on the subject S5 when determining the cross-section of a ball with a flat surface. Based on the transcript between the observers with the S5, S5 compares it appears that between the two stimuli, between the spheres with a soccer ball.

Obs : tell me how you get a cross-section between sphere with a flat surface
S5 : I imagine there is a soccer ball sliced by a paper ... (An)
Obs : Yes ...go on.
S5 : soccer ball broke in two,
Obs : what kind of the shape did you see?
S5 : the shape is .... (Pause)... like a circle

Student difficulties related problem resolution cross-sectional slices of geometry with a flat surface

The fifth subject at the time to solve the problem sectional has difficulty at the time of spatial orientation. Subject assumes that the cross-section visible is not orthogonal. Visible on determining spatial is orientation of the cross section of the ball. If the ball is not seen as orthogonal to the plane of cutting, the cross section that looks elliptical because of the orientation of the subject is himself the object being cut (Figure 2). Orientation difficulties been

faced by S1, S2, S3 when solving sphere cross-sectional. If the orientation of the subject changed orthogonal to the cutting plane, it would appear circular cross section.

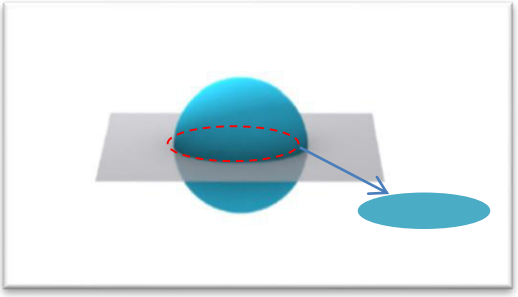

Figure 2 : The sphere is cut flat plane

The cross-section of cones and tubes, especially the subject S1, S2 and S3 seems to visualize partial cross-section. All three subjects make clear that a cone made up of two parts, namely cone and the base of the cone. When the two sections are cut horizontally, then each section will be cut into two there are smaller cones and truncated cones at the bottom. The third subject does not consider that the object should be determined cross-section, but it is happening is the subject focus on the cone cropped by a flat plane. The cone is conceivable seen in a vertical cross-section so that a triangular cone while cone ring-shaped pedestal will be cut into half circles. When two objects vertically cutting results are combined, it will form a triangular field with a semicircular base.

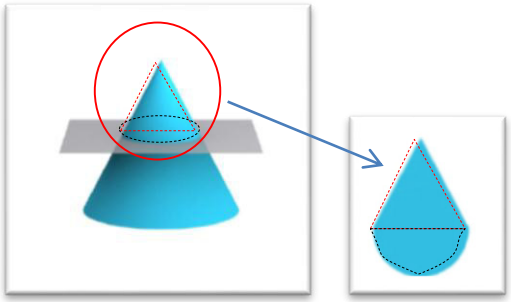

Figure 3: Cross-section of cone by S3

On the task of cross-section of the cylinder that is cut flat field vertically, all subject gives the same information related to it. The cylinder is divided into three parts, namely cylinder surface, cylinder cover and cylinder pedestal. Cylinder truncated rectangular, the cover and the base of each tube-shaped circle if the cut will semicircular. So that when fully assembled will form a rectangle with two half circles at the top and the base of the rectangle.

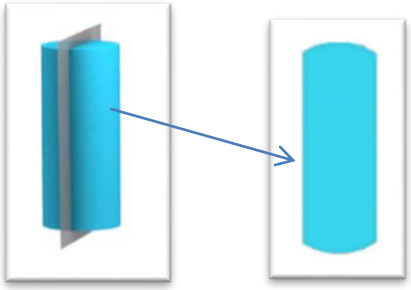

Figure 4 : Cross-Section of the Cylider by S1

Difficulties on the subject indicated that at previous lesson they learned cube net. Net cubes are separately square and then assembled into a single geometry. Errors in spatial visualization in this case are likely due to previous subjects learned the concepts net cube so that the subject thinks partially to the problem of determining these cross sections.

CONCLUSION

When performing spatial visualization, through this study showed that the strategy used at the time to solve the problem of determining cross-sectional geometry with a flat field grouped in imagistic strategy and analytic strategies. Imagistic strategy characterized by the encodings, imagines the movement of field pieces, and represents the cutting results by field pieces. Analytical strategy is characterized by comparing the two stimuli in this case the stimuli used is a sphere with a soccer ball.

REFERENCES

Cohen dan Hegarty. 2014 Visualizing cross sections: Training spatial thinking using interactive animations and virtual objects. *Learning and Individual Differences 33 (2014) 63–71*, journal homepage: www.elsevier.com/locate/lindif.

Gecu. et. al. 2015. Effects of computer game experiences on children's spatial abilities. *International J. Soc. Sci. & Education Vol.5 Issue 4,* www.researchgate.net/publication.

Ho, S.Y., Lowrie, T. dan Ramful, A, 2013. Visual and Analytical Strategies In Spatial Visualization: Perspectives From Bilateral Symmetry and Reflection, *Proc.36th Psycology Mathemathic Education, Vol. 3, 311 – 320.*

Wang dan Carr. 2014. Working Memory and Strategy Use Contribute to Gender Differences in Spatial Ability, *Educational Psychologist, 49(4), 261–282*, www.researchgate.net/publication.

Wai, L., dan Benbow. 2009. Spatial Ability for STEM Domains : Aligning Over 50 Years of Cumulative Psychological Knowledge Solidifies It's Importance. *Journal of Educational Psychology Vol.101. No.4 817-835*, www.researchgate.net/publication.

The influence of Achievement Motivation and Academic Self-concept toward Academic Achievement of Public Junior High School in Malang

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Abstract: Academic achievement is a starting point for the students to succeed in learning. There are two main factors that contribute to succeed of the students' academic achievement there are the achievement motivation and academic self-concept. Both are non-cognitive factors that can affect the academic achievements. This research aimed of testing the influence of achievement motivation and academic self-concept towards student academic achievement of junior high school in Malang. Sample of this study were 183 males and 210 female students. Showed that academic self-concept directly influenced academic achievement (0.153 with the significance of 0.022). Academic motivation directly influenced academic achievement (0,180 with the significance of 0,010). Academic self-concept directly influenced the academic motivation (0.725 with value significance 0.000). Academic self-concept indirectly influenced through academic motivation (0.131 value significance 0.000). In showed, the results showed there were direct and indirect influenced of academic self-concept and achievement motivation toward the academic achievement.

Keyword: Academic achievement, achievement motivation and academic self-concept

Academic achievement is a starting point to succeed or whether students in academics. Even being a part of the student's graduation from determining a level of education. Academic achievement is generally viewed as the embodiment of the achievement of the knowledge or skill developed in school subjects (Busari, 2000), but on the other hand, the success and failure of the student is a potential event that faced students along the way of his education. Academic achievement in a school or institution becomes very important to be examined because the academic achievement is the success criteria of learning process in the institution. According to Damrongpanit, Reungtragul & Pittayanon (2010) academic achievement becomes important and need to be underlined because guidance increased the quality of national education in the nation. Most communities have argued that low academic achievement more determined by factors of intelligence, talents, interests, and support from family, school or community environment.

Guidance and counseling services are extremely important conducted by counselors at the school. It's evident from the research results Hussain (2006) concluded that counseling significantly affects the attitude of learning, the habit of learning, and academic achievements of junior high school students. Development of students ' academic achievement is a thing that could not be ignored by the counselors. According to Modo (2013), students who obtain guidance and counseling service gets an academic achievement than students who do not get the guidance and counseling services. Thus the development of academic achievement could be supported by the grant guidance and counseling services. In line with the opinion of the Modo (2013), Sink & Stroh's (2003) stated that the guidance and counseling program is a comprehensive, school-based real benefits to students in terms of improved academic achievement.

One of the non-cognitive factors can deliver someone in academic achievement and a few other things is motivated achievers. Motivated achievers have a high influence against the success of student achievement in school. Ardhana (1990) explained that motivated achievers are an important factor to achieve the feat, both in academic achievers as well as in other fields. While Slavin (1994) revealed that one type of motivation in education is the most important motivation achievers *(achievement motivation).*

One type of motivation that drives a person to improve the quality of the self and achieve a certain standard of excellence is an accomplished motivational. McClelland explains achievement motivation is the motivation that drives individuals to achieve success in competing with certain standards of excellence *(standard of excellence)*. Therefore, if there is high achievers students' motivation then the academic achievement of students will be high.

The motivation of overachievers has close relation with the academic self-concept. Students are subject and object in process of learning activities (behavioral) study. Behavior study that was done is certainly influenced by the characteristics of the students as a manifestation of the concept itself. Rogers (in Burns, 1993) explains the self-concept to be the most important determinant of an individual's response to the environment, this means that when self-concept of positive student then learning behavior will be influenced towards the positive. Otherwise when the self-concept of negative student in learning, then conduct his studies will realize the negative behavior. For example, lazy, do not create tasks, don't listen to the teacher's explanation, did not want to attend school, and even aloof.

Research results showed that success academic achievement of students one of the factors that contributing is the academic self-concept. Students who have a positive self-concept looked at themselves can be accomplished in the context of academic in the learning environment and they feel comfortable in the social environment in the classroom. Self-concept of students is one of the factors that affect the achievement of their learning. It makes the basis for researchers that the factors of non-cognitive influence academic achievement is very important to examined in education

METHOD

Program Study

The research design was use Non-experimental Research (Gall et.al. 2003). This study will not do the manipulation or comparison of treatment agonists the variables were examined, but do the measurements in a natural setting (natural). The researcher measure and explain the influence inter-variable. Gall (2003: 289 & 295) explained that measurement and explaining on this study used Causal Relationship explanatory Study. Its mean this study not only explain the relationship but most them. That is explained the influence level between variables.

Population and Sample

The population in this research is the total number of grade VII, VIII and IX Public Junior High School in Malang City at period 2015/2016, the total number of 20,852 students from 26 schools. Sampling techniques using cluster random sampling then known 393 sample student consists of 210 female and 183 male.

Instrument

This study, the instrument of academic self-concept adapted "*Validation of the Academic Self-Concept Questionnaire in the Vietnam School Survey Round 1"* who developed by Louise

Yorke. The instrument of achievement motivation adapted the instrument who developed by Hani Mufaridah (2015) with the tittle of thesis "model of academic achievement theoretic of senior high school of student in Malang city". The purpose of the instrument is to obtain data information that regard to the variables research that is motivated achievers, academic self-concept. Academic self-concept is taken from administration of the average value of daily examination and the result of semester middle examination for mathematic, IPA, IPS, English and Indonesia.

Data Analysis

Technique of data analysis used in this study is path analysis. Path analysis is a statistical method which used to test the hypothesis that interconnected between three or more variables and can test the strength comparison either directly or indirectly between variables Gall dkk (2003: 347).

RESULT

Test of Assumptions

Test of linear

The purpose of the test linear was to know the linear or whether the relationship between each variable (Cohen, 1983). Testing criteria mentions that if the value of the probability < level of significance (alpha (α=5%)) then there is a linear relationship between the endogenous variables against exogenous variables. Linear test results are presented in the following table:

Table 1 Summary: Linear Test of Academic Self-concept, Achievement Motivation, Academic Achievement

Exogen	Endogen	F	Sig.	Description
Academic Self-concept	Academic Achievement	61.366	0.000	Linear
Achievement Motivation	Academic Achievement	68.520	0.000	Linear
Academic Self-concept	Achievement Motivation	433.086	0.000	Linear

Based on table 1 Note that relationship endogenous against exogenous have probability < level of significance (alpha (α=5%)). Thus it can be stated that all relationships exogenous against endogenous stated linear.

Test of Normality

Test of normality assumption to know whether residual generated by path analysis model (normal or abnormal distribution). Residual normal stated when the probability of the test of Kolmogorov Smirnov value greater than the level of significant (*alpha=5%*). Following are the results of testing the assumptions of normality through Kolmogorov Smirnov:

Tabel 2 Normality Test of Academic Self-concept, Achievement Motivation and Academic Achievement

Relation Between Variables	Model 1: the influence of academic self-concept and achievement motivation towards academic achievement	Model 2 : the influence of academic self-concept against achievement motivation
Kolmogorov-Smirnov Z	0.035	0.042
Probabilities	0.200	0.095

Testing the assumptions of normality of Model 1 was the influence of academic self-concept and achievement motivation towards academic achievement (*Kolmogorov Smirnov* of 0.035, probabilities 0.200). Model 2 was the influence of academic self-concept against achievement motivation (*Kolmogorov Smirnov* of 0.042, probabilities 0.095). These results indicate that the probability > *level of significant* (α=5%). This means the residual generated by both models revealed normal distribution.

Test of Heteroskedastisitas

Heteroskedastisitas test to find out which residual has a homogeneous variety (constant) or not from an observation to other observations (Dachlan, 2014). Heterokedastisitas test can be observed through the Scatter Plot in Figure 1. Testing criteria stated residual dots is spread randomly. Then the conclusion stated assumption heteroskedastisitas are fulfilled.

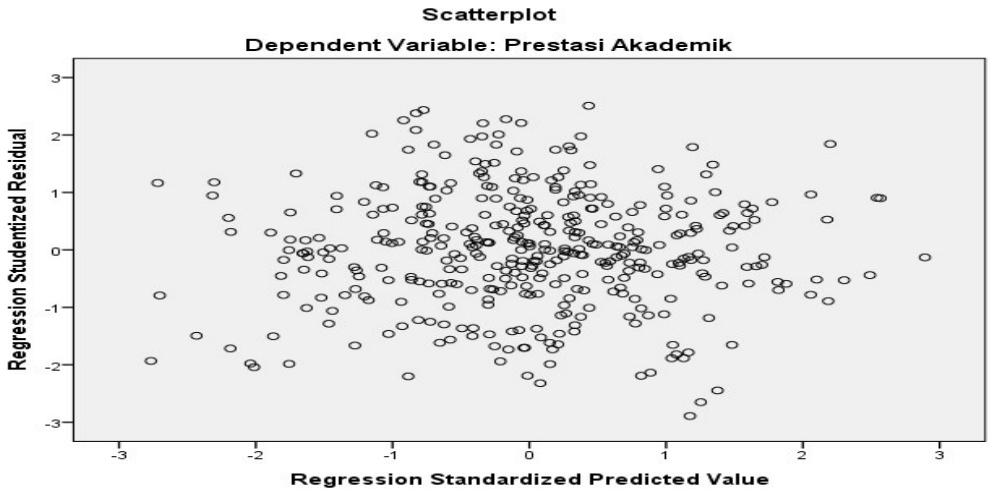

Figure 1 Test of Heteroskedastisitas: Academic Achievement (The Dependent Variable)

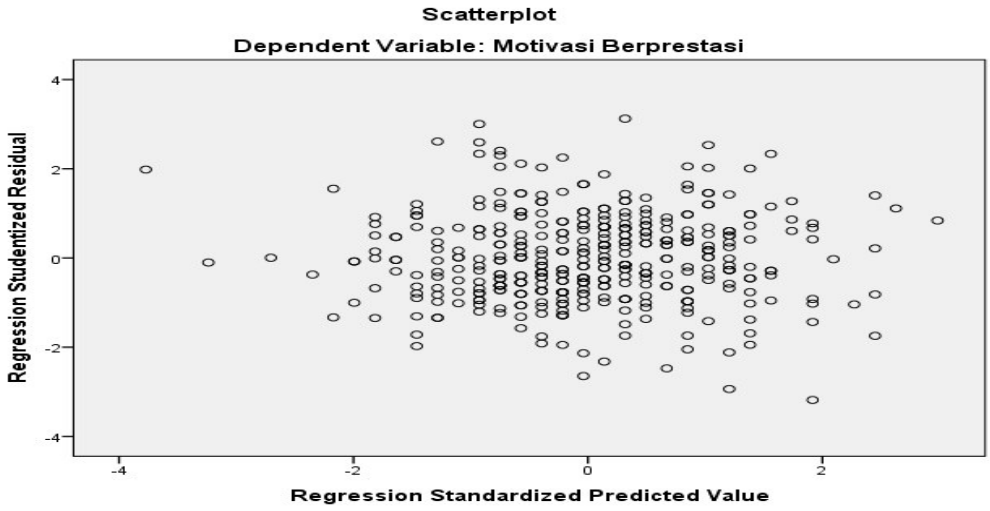

Figure 2 Test of Heteroskedastisitas: Achievement motivation (The Dependent Variable)

The results of tests the assumption heteroskedastisitas using scatter plots, which are residual dots generated by the model of influential academic self-concept and achievement motivation toward academic achievement. Influential academic self-concept toward achievement motivation is random spread

Test of Multikolinieritas

Test multikolinieritas used to present the degree in which a variable can be explained by other variables or inter-correlation between the variables. Multikolinieritas testing is expected between the independent variables are not mutually correlated. How to detect whether there are multikolinieritas can be done by looking at the value of the Variance Inflation Factor (VIF) of each independent variable against the dependent variable. If the value of the VIF smaller equal to 10 then stated there is no model multikolinier. Assumption multikolinieritas test results can be known through the following table:

Table 3 Multikolinieritas Test against Academic Achievement

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Academic Self-concept	.459	2,180
	Achievement motivation	.423	2,365

Dependent Variable: Academic Achievement

Based on the results of the analysis table 3, it can be inferred that all variables have values that VIF is not more than 10, conclusion the assumption does not occur multikolinieritas be fulfilled.

Goodness of fit Model

Goodness of fit Model is used to know the magnitude of diversity of exogenous variables in explaining the diversity of endogenous variables, or in other words to know the magnitude of the contribution of exogenous variables against endogenous variables. Goodness of fit Model in the analysis of the Path is done using the coefficient of determination of Total (R^2_m). As for the results of the Goodness of fit models that have been summarized in the following table:

Table 4 Summary *Goodness of fit Model*

Variable	R^2
Academic Achievement	0,214
Achievement Motivation	0,526
$R^2_m = 1 - ((1 - R^2_{Y1}) * (1 - R^2_{Y2}))$ $R^2_m = 1 - ((1 - 0{,}214) * (1 - 0{,}526)) = 0{,}627$	

R-square variable academic achievement valued at 0.214 or at 21.4%. It can be shown that academic achievement is described by academic self-concept, achievement motivation (21.4%), or in other words the contribution of academic self-concept, achievement motivation against academic achievement (21.4%), while the balance (78.6%) is the contribution of other variables that are not discussed in this study.

R-square of achievers motivation variables are (0.526 or 52.6%). It may indicate that the diversity of motivations overachievers capable described by academic self-concept (52.6%), or in other words the contribution of academic self-concept against motivation achievers (52.6%), while the balance (47.4%) is the contribution of other variables that are not discussed in this study.

The coefficient of determination of Total (R^2_m) value (0,627 or 62,7%). It may indicate that the diversity of academic achievement are able to explained by the model as overall (62.7%), or in other words the contribution of academic self-concept, motivation of overachievers against academic achievement (62.7%), while the balance (37.3%) is the contribution of other variables that are not discussed in this study.

Table 5 Output Anova Academic Achievement

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1935.609	4	483.902	26.398	.000[b]
	Residual	7112.531	388	18.331		
	Total	9048.140	392			

Dependent Variable: Academic Achievement

Predictors: (Constant Academic Self-concept, Achievement Motivation)

Based on the results of test Anova in table 5 were obtained F-count (26,398) with significance (0.000 < 0,05), then a significant regression model or can be said to deserve is used to predict academic achievement. It shows that there is a significant influence of the variable academic self-concept, achievement motivation against academic achievement.

Table 6 Output Coefficients Academic Achievement

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	48,454	3,087		15,694	,000
	Academic Self Concept	2,485	1,078	,153	2,304	,022
	Achievement Motivation	3,053	1,173	,180	2,602	,010

Dependent Variable: Academic Achievement

Based on table 6 partial tests can know that academic self-concept of variables, the motivation of overachievers has significant effects against variable academic achievement, shown with the value the significance of each variable is smaller than 0.05, are 0.022 for academic Self-concept, 0.010 to motivation of overachievers. The following interpretations of each variable:

a. academic self-Concept towards academic achievement produces a value T-count (2.304, sig 0.022). The results of these tests indicate that significance < alpha (5%). This means there is a significant influence of the academic self-concept directly toward academic achievement. Thus the hypothesis 1 is fulfilled.
b. achievement motivation towards academic achievement produces a value T-count (2.602, sig 0.010). The results of these tests indicate that significance < alpha (5%). This means there is a significant influence of the achievement motivation directly toward academic achievement. Thus the hypothesis 2 is fulfilled.
c. academic self-Concept towards achievement motivation produces a value T-count (20.811, sig 0.000). The results of these tests indicate that significance < alpha (5%). This means there is a significant influence of the academic self-concept directly toward achievement motivation. Furthermore the influence of academic self-concept towards academic achievement through motivation overachievers. It known that the academic self-concept significantly influence toward achievement motivation, and overachievers motivation

toward academic achievement. Because of these significant lines then it can be stated that there is a significant influence of the academic self-concept towards academic achievement through motivation overachievers. Thus motivated achievers are able to mediate the influence of academic self-concept toward academic achievement.

Table 7 Conclusion the Influence of Total against Academic Achievement

Variables			Influential		
Exogenous	**Endogenous**	**Mediation**	**Direct**	**Indirect**	**Total**
Academic Self-concept	Academic Achievement	Achievement motivation	0,153	0,131	0,284
Achievement motivation	Academic Achievement	-	0,180	-	0,180
Academic Self-concept	Achievement motivation	-	0,725	-	0,725

In table 7 can be known the existence of a direct influential directly or indirectly between the three exogenous and endogenous variables with the following details:

a) The variables of academic self-concept of directly influential against the academic achievement (0.153, sig 0.022). It showed that the academic self-concept of an influential positive and significantly against academic achievement. Thus the better academic self-concept then tends to be able to increase academic achievement.
b) The variables of achievement motivation of directly influential against the academic achievement (0.180, sig 0.010). It showed that the achievement motivation of an influential positive and significantly against academic achievement. Thus the better achievement motivation then tends to be able to increase academic achievement.
c) The variables of academic self-concept of directly influential against the achievement motivation (0.725, sig 0.000). It showed that the academic self-concept of an influential positive and significantly against achievement motivation. Thus the better academic self-concept then tends to be able to increase achievement motivation.
d) The variables of academic self-concept of indirectly influential against the academic achievement (0.131, sig 0.000). It showed that the academic self-concept of an influential positive and significantly against academic achievement through achievement motivation. Thus the better achievement motivation then tends to be able to increase achievement motivation. Thus the better motivated achievers that is caused by the better academic self-concept then tends to be able to increase academic achievement.

DISCUSSION

The Influence between Constructs the Research

1. The influence of Academic self-Concept towards academic achievement

Data analysis results against path analysis showed the academic self-concept that significantly and positively affect academic achievement (0,153, p = 0,022), so the influence of independent variables generally accepted empirical. The results of this research are consistent with research conducted by Greene & Zirkel at (Waschull, 2005), Fink at Burns (1993), John & Grieneeks at Burns (1993), Shavelson et.al at Skoe & Lippe (2005), Tan & Yates (2007).

This analysis explains the concept of the self is low that the academic achievement will be low (Fink dalam Burns, 1993). Self-concepts among students of both men and women are

not much different. In other words, gender does not join in forming a self-concept (John & Grieneeks dalam Burns, 1993).

Self-concept of students is one of the factors that affect academic achievement (Bloom, Byrne, Hansford & Hattie, Marsh & Wilie in Hamachek, 1995). Should students have a positive view on their self can be aroused the confidence, motivation for more socializing and attain better achievements (Dayakisni & Yuniardi, 2008).

2. The influence of Motivation towards Academic Achievers

Data analysis results against path analysis shows that significant and positive motivation achievers affect academic achievement (0,180, p = 0,010), so the influence of independent variables generally accepted empirical. The research is in line with the results of the study Rozhkova (2011) in his dissertation entitled "*Measurement of the Implicit and Explicit Achievement Motive: New Perspectives"* indicates that the motivation (explicit) to Excel is a predictor of academic success.

Research results (d "Ailly, 2003) shows that there is a difference in academic achievement results from motivation extrinsic and intrinsic motivation although the difference is not much different, where the retrieved external motivation with contributions to academic achievement (0,66), While the contribution of intrinsic motivation towards learning outcomes is (0.89). Achievement motivation is personal factors greatly affect academic achievement. Much research has proven the existence of the influence the motivation of overachievers against academic achievement, so it is inferred that the low-high motivation achievers will have an effect on the level of academic achievement that will be achieved by students. That is, if the motivation of the student's high achievers, then the academic achievement of students will be high anyway, in the understanding that there is influence the motivation of overachievers against academic achievement are significantly (Eliot, et.al. 2000; Pintrich in Pokay & Blumfeld, 1990).

Ringness reported research results by Anderman & Young (1994), that the individual who has the motivation high achievers also gained good academic achievement, compared with academic achievement earned by students who have the motivation of underachieving. According to Glover & Burning (1990), students who have the motivation high achievers will always want to work hard to succeed without expectation of getting reward or praise. The students like this have a strong tendency to do something upon the intrinsic satisfaction of success itself.

The motivation of overachievers can support the success in learning. The achievement motivation in a person involves processes that provide energy, redirect, and maintain behavior. Motivated behavior is behavior that contains energy has its direction and can be maintained. Motivation as a factor that influence and become a push directly on the behavior factors such as: interest, need, values, attitudes, aspirations and incentives. Motivation as a driving factor for doing an activity is very important in the learning activities of students.

3. Indirect Influence Academic Self Concept towards academic achievement through Motivation Achievers

Data analysis results against path analysis showed that the academic self-concept of indirect effect was significantly and positive against academic achievement through academic motivation (0, 725, p = 0.000) so the influence of independent variables generally accepted empirical. The results of this research are consistent with research conducted by Schunk (1991), Nilsen (2009), Damrongpanit, Reungtragul & Pittayanon (2010)

Self-concept consists of several dimensions, among others such as academic aspects and social aspects. Lots of personality concepts, one of which the self-concept. Students who have a positive self-concept will spur the emergence of great achievers motivation in themselves.

Self-concept of students is one of the factors that affect the motivation of achievers. Should students have a positive view on yourself will resurrect self-confidence and self-motivation for more socializing and achieve higher academic achievement (Dayakisni & Yuniardi, 2008).

Academic self-concept highly on students that possible to influence directly, improve achievement academic or foster academic motivation better. The research is in line with the research that has been done by Schunk (1991), Nilsen (2009), Damrongpant, reungtragul, Pittayon (2010), Elliot, Dweek (2005), Marsh, Hau, (2004), Long (2007), Pietsch, Walker, Champman (2003)

Academic self-concept is important variable that explained empiric study and identified that determine the realization of the potential of individual intellectual. The level of student's confident and their potential will managed well. Especially student had good self-concept. Student who had positive self-concept will contemplate their self can achieve achievement motivation can support the success in learning. Achievement motivation in a person involves processes that provide energy, directing and maintaining behavior. Motivated behavior is behavior that contains energy has its direction and can be maintained. Motivation as a factor that influence and become a push directly on the behavior factors other. Such as: interest, needs, attitudes, values and aspirations of the incentive. Motivation as a supporting factor for doing an activity is very important in the learning activities of students

The finding of hypothesis

Three hypotheses have been found from result of researching. The following details of the three hypotheses:

1. The path confession from achievement motivation against academic achievement of 0,01 < 0,05, so the hypothesis H_a1 accepted.
2. The path confession from academic self-concept against academic achievement of 0,022 < 0,05, so the hypothesis H_a2 accepted.
3. The path confession from academic self-concept against academic achievement trough achievement of 0,000 < 0,05, so the hypothesis H_a5 accepted.

The implications for guidance and Counseling

Education is something important and very noteworthy. The reason, if education is going well, so the person's life will go well. The school as a formal education institutions have a responsibility to develop the cognitive aspects as well as the non-cognitive aspects of students. The aspect of non-cognitive is achievement motivation and academic self-concept that Counselor assignments. The efforts of developing of student's non-cognitive aspects implemented through the activities of the guidance and Counseling services that autonomy by counselor. Counselor can develop programs that focus on improving the academic achievement of students. This is due to academic achievement to starting point the success or failure of students on academic and determinant of graduation students from academic level.

The finding about academic self-concept and very high achieving motivation related to guidance and counseling services. Especially was related to the social-personal services. Thus students can be assisted in academic achievement through individual planning service. The development of this service can implemented with program an activity that based on the results of reseach.

SUMMARY AND ADVICE

Summary

Based on the results of hypothesis testing correlation between achievement motivations, academic self-concept and academic achievement can be summed up as follows. *First*, academic self-concept was influential direct significantly toward academic achievement. *Second*, achievement motivations influential direct significantly toward academic achievement. *Third*, academic self-concept was influential direct significantly toward academic motivation. *Four,* academic self-concept was influential indirect significantly toward academic achievement through motivation achievers.

Theoretic model of achievement academic of junior high school students in Malang city. That has developed empirical support and it has been proven feasible. The result of theory model that is academic achievement is influenced directly by motivation achievers, academic self-concept. Furthermore, academic achievement is influenced indirectly by the academic self-concept through motivation achievers. So it can be inferred that the person who has good self-concept and high achievement motivation will produce a good achievement.

Advice

Counselors can analyses students having regard to any other aspect (motivation achievement, academic self-concept, the ability of taking perspective from others, and the ability of thinking lateral) In addition to cognitive aspects that support the academic achievement of students. The fourth aspect could be developed through the program of guidance of counseling in program personal-social. Furthermore, the Counselor can make the results in this study to giving guidance and counseling services.

REFERENCES

Burns, R.B. 1993. *Konsep Diri, Teori, Pengukuran, Perkembangan dan Perilaku (alih bahasa oleh Eddy).* Jakarta: Archan.

Busari, A.O. 2000. *Stress Inoculation Training and Self-statement Monitoring Technique in the Reduction of Test Anxiety among Adolescent Under-achievers in Ibad University.* Tesis. Ibad: Ibad University.

Damrongpanit, S., Reungtragul, A. & Pittayanon, T. 2010. An investigation of the Effect between Academic Self-Concept, NonAcademic Self-Concept, and Academic Achievement: Causal Ordering Models. *Reaserch in Higher Education Journal*.

Ardhana, W. 1990. *Atribusi Terhadap Sebab-sebab Keberhasilan dan Kegagalan serta kaitannya dengan Motivasi untuk Berprestasi*. Jurnal Forum Penelitian IKIP Malang.4, 3-4.

Gall, M.D., Gall, J.P. & Borg, W.R. 2003. *Educational Research: An Introduction*. Boston: A & B Publications.

Hussain, A. 2006. Effect of Guidance Service on Study Attitudes, Study Habits, and Academic Achievement of Secondary School Students. *Bulletin of Education & Research*, 28 (1): 35-45.

McClelland, D. 1987. *Human Motivation.* New York: Cambridge University Press.

Modo, F., Sanni, K., Uwah, C. & Mogbo, I. 2013. Guidance and Counseling Service in Secondary School as Coping Strategy for Improved Academic Performance of Students

in Akwa Ibom State, Nigeria. *In Journal of Research on Humanities and Social Sciences.* 3 (4), pp.43-47.

Mufarida, H. 2015. *Model Teoritik Prestasi Akademik Siswa SMAN Kota Malang.* Tesis. Universitas Negeri Malang.

Sing & Stroh. 2003. What are the Effects of Comprehensive Developmental Guidance Programs on Early Elementary Students' Academic Achievement?. *Professional School Counseling*, 6: 352-364

Slavin, R.E. 2009. *Psychology Theory and Practice*. Massachussets: Allan and Bacon.

Process-Genre Approach: Breaking Students' Barriers in Writing

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Abstract: Writing as one of the language skills that has an important role in communicating ideas in written form seems to be difficult for EFL students. This is because writing requires the EFL students to consider various aspects such as content, organization, vocabulary, languages and mechanics. Since process-genre approach is one of the strategies that is a synthesis of process based approach and genre based approach, it is predicted that it can overcome students' problem in writing. This approach offers a solution in helping students to develop their writing skill by improving the five aspects of writing. This article higlights the students' writing obstacles and the potential of the process- genre approach in enhancing students writing skill. This article also shows the teaching scenario using process genre approach and the procedure of the implementation.

Keywords: writing skill, process-genre approach, students' barriers

Writing is an important skill to be learned by EFL secondary students because through writing they can express their idea, feeling and thought to the readers. Writing encourages the students to arrange some words into frases, clauses, sentences and paragraph by considering the structure, cohesion, organization, meaning and etc. As stated by Yah (2010) the objectives of writing well and effectively is to give some chances to the language learners to be eager to survive the language and to improve language skills, fluency, accuracy and appropriateness in communicating meaning and messages. Clearly, writing is very important to be acquared by students to improve their knowledge and achievement.

However, writing is considered as a difficult and complicated task. It is caused by the complexity of aspects that involves in writing such as content, organization, vocabulary, languages and mechanics. The writer should have such good consideration toward the aspects involved in writing. In addition, Taylor (2009) mention that writing is a difficult task for student because they should develop their ideas into readable text. It is not easy to generating the idea that the messages can be understood by the readers.

Meanwhile, in the latest secondary curriculum in Indonesia it can be seen that the students are demanded to have some competency in writing. The aim of teaching writing in Indonesian secondary curriculum is to encourage students to be able to arrange or produce short texts by using correct text structure and linguistic features based on the context (Kemendikbud, 2016). Clearly, students are asked to build a sentence consisting of several words, phrases and clauses. In addition, they should consider the cohesion, coherence, grammar, punctuation, and many more. The teacher is expected to facilitate their students in developing the students' idea in writing.

Teacher can use some approaches for teaching writing skill such as product based approach, process based approach, and genre based approach. By using an appropriate approach for teaching writing, it is expected that it can encourage the students to deliver their ideas into good writing. Badger and White (2000) stated that combining the two approaches in writing (process based approach and genre based approach) can be effective in enhancing the writing skills of students. This approach is called process-genre approach. It allows students to study

the relationship between purpose and form for a particular genre as they use the processes of planning, drafting, revising, and editing (Yan, 2005).

This article presents the obstacles in teaching writing, process-genre approach, process-genre approach to overcome students' barrier in writing, as well as the procedure and teaching scenario of process-genre approach.

WRITING OBSTACLES

Writing is considered as the most difficult skill by the students (Hensel, 2008; Wang, 2003) because it has complex aspects such as content, organization, vocabulary, language use and mechanics (Brown, 1994). All of these aspects should meet the patterns in order to establish a meaningful text. If these elements are ignored, the readers cannot understand the idea that is expressed. Hensel (2008) found that there are many problems in writing, at least, problems in grammar and punctuation. Similarly, Wang (2003) mentioned that poor organization, insufficient development, weird structure or grammar and inappropriate vocabulary appeared as obstacles in writing. These problems prove that writing is a difficult task and almost all of the aspects of writing are considered problematic for the students.

Some factors influence the students' problems in writing. Some researchers have addressed some factors in writing difficulties. According to Grossman (2009), students have problems because they lack skills to write. This is because, they do not write in their first language. As a consequence, they lack the confidence and experience needed to write in second language. Norrish (1987) adds that there are three kinds of causes of erros. The first is carelessnes. It is related to the lack of motivation that is caused by the material and the style presentation which are less interesting. The next is first language. The first language interferes the language learner when s/he learns target language in every aspect. The last is translation. It occurs because the language learner translates his/her first language sentence or idiomatic expresion into the target language word by word. These errors give significant impacts to the teaching and learning process and output.

PROCESS-GENRE APPROACH

Badger and White (2000) stated that an effective methodology for writing needs to consider the comprehension of some approaches (product, process, and genre approaches). One way to implement it is to start with one approach and adapt it. Reonal (2015) mention that integrative use of process approach and genre based approach helps student to improve their skills in using language by experiencing a whole writing process as well as gain knowledge of the contexts and the purpose of their writing.

The characteristic of process approach is the implementation of recursive writing process such as planning, drafting, revision and editing (Rosinovci, 2015; Hyland, 2003; Richards & Renandya, 2002). It can be seen that, the process approach involve revision and also revision from others. Students work can be revised by tearcher or other students. An essential element of the process approach is the abilities it brings to the learners, who make a personal relation to the topic and come to comprehend the processes of writing. While through the genre-based approach, the ideas such as knowledge of the context, the purpose of writing, text features and text structure are adopted (Badger & White, 2000). According to Yan (2005) By investigating different genres, students can understand the differences in structure and form and implement what they learn to their own writing.

Process-genre approach is an integration of concepts from the process-based approach and the genre-based approach (Badger & White, 2000). The process-genre approach is a

combination of two approaches which can help in developing students' writing skills (Frith, 2016; Babalola and Litinin (2012) Kim & Kim, 2005; Yan, 2005; Badger & White, 2000). Kim and Kim (2005) stated that in this approach, writing is viewed as involving knowledge about language (as in genre approach), knowledge of the context in which writing happens and especially the purpose for the writing (as in genre approach), and skills in using language (as in process approach). Hence, process genre approach allows the students to take benefit from the process of writing; prewriting, drafting, revising and editing and get familiar with the text they are going to produce.

The process-genre approach in the views of Goa (2007) in Babalola and Litinin (2012) have some characteristics, such as the learners' creative thinking, the structure of text, the knowledge of linguistic features, and the social function of the text. The procedure of process-genre approach are preparation, modelling and reinforcing, planning, joint constructing, independent constructing, and revising stage (Badger & White, 2000; Yan, 2005).

PROCESS-GENRE APPROACH TO OVERCOME STUDENTS' BARRIER IN WRITING

Since writing is a complicated and important task which has some aspects (e.g organization, vocabulary, languages and mechanics), teacher should use appropriate approach in overcome the students' problems in writing. Teacher should try to provide students with writing assignments that follow several stages that can unite all those aspects in writing. Process-genre approach is indicated can solve students problem in writing for overall writing aspects. Yan (2005) states that the process-genre approach help teacher in uniting all writing aspects, motivate the students in writing, and also preparing the students in writing inside/outside the classroom. Kim and Kim (2005) suggested to use process-genre approach to overcome students problems in writing. They mentioned that process-genre approach give the students the chance to enjoy the creativity of writing and to become independent writers (as in process approach) and help the students to understand the linguistic features of each genre and emphasize the discourse value of the structures they are using (as in genre approach).

The indication the use of process-genre approach in overcome students' problems in writing has been proved by some experts. There are some researchers who have done research related to the teaching of writing using process genre approach. The result of the study show that process-genre approach can help students to overcome their problems in overall writing aspects. Some of the studies are explained below.

The first study was conducted by Foo (2007). This is a study to find out the effectiveness of the process-genre approach to help students in writing expository essays in Malaysian secondary school. The study showed that students who received process-genre approach in writing were able to communicate their ideas in writing more effective and developed more relevant ideas, compared to the students who received product based approach. His study reveal that process genre approach was effective for all writing aspects, such as content, organization, vocabulary, languages and mechanics.

The second study was conducted by Megawati and Anugerahwati (2012) about the use of comic strip through process-genre approach to improve student's writing narative text. They conducted the study from XII grader of MAN Bangil. Their preliminary research indicated that the students seemed unmotivated and had difficulty in composing their own writing. However, after they conducted the study, they found that teaching writing using comic strips through Process-Genre Based Approach could successfully improve students' ability in writing particularly in aiding the students to generate and organize ideas and select more appropriate grammar, vocabulary, and punctuation as well as in improving students' motivation in writing.

Litinin (2012) conducted a quasi experimental design to see the effectiveness of process-genre approach on student writing achievement in a Nigerian polytechnic. The study reveal that process genre approach is significant effect the students' writing ability in overall writing aspects, such as organization, content, expression and linguistics accuracy.

The next study was a study from Pujianto et al. (2014), who investigate whether a process-genre approach teaching steps can help to develop senior high students' writing skills of report text. The results show that, PGA helps students to develop their writing skills of Report text specifically on the genre knowledge, writing process, and feedback from peers and the teacher. This study figured out that the low-achieving students need longer modelling and teacher-student conference stages.

THE PROCEDURE IN TEACHING USING PROCESS GENRE APPROACH

The process-genre approach should follow some steps. Yan (2005) explain about what occurs during the six steps in process-genre approach. The first step is preparing. In this step teacher prepare the students to write the specific genre by anticipating the generic structure of the text. The second step is modelling and reinforcing. The students are introduced to the model of the text by considering the social function and the structured of the text. In this step teacher helps the students to compare the text that is learned with the other text. The next step is planning. The students are helped to develop their interest in the topic by connecting it with their experience. In the planning stage, students are given some activities, such as brainstorming, discussing, and reading associated material. After the planning step, the teacher facilitates the students to construct the text.

The teacher and students work together to write the text. The students give information and idea, and the teacher writes it on the whiteboard. This step is called joint constructing. The next step is independent constructing. In this stage, student are give the time to compose the text independently but the teacher can facilitate the students by helping, clarifying and consulting about the process. The last step is revising. In this step, the students draft will be revised and edited by their classmates or teacher. In this step the students final draft will be published to motivate students in producing a good text.

TEACHING SCENARIO USING PROCESS-GENRE APPROACH

This part explain about teaching scenario using process-genre approach which is implemented in seven meetings that is divided into six stages. In the first meeting teacher explain about the text that will be taugt by explaining about the social fuction of the text and the generic structure of the text in detail. In this stage teacher can use video as media to help student in understanding the text and the componet of the text. On the second meeting, teacher will implemented the modeling stage by giving the model of text to the students and ask them to identify the social function of the text. The third meeting is the planning stage. In this stage, teacher will give some tasks and activities to develop students interest of the topic and connect the text with students' experience. The fourth meeting is joint construction of the text (JCoT). Together with the teacher, students construct the text. In constructing the text, the teacher guide the students by using video and the students' worksheet. In the fifth meeting, teacher continue the forth meeting's activities (joint construction of the text). In this meeting, teacher ask student to construct the new report text in group. Teacher help the student by giving video and worksheet to lead the student to compose a text systematically in using appropriate vocabulary. The sixth meeting, is called independent construction of the text (ICoT). In this stage, students are asked to compose their own draft individually. In the last meeting, students are given time

to revise their draft and their friend's draft based on the guideline given by the teacher. These activities can be seen in Table 1.

Table 1. Teaching Scenario using Process-Genre Approach

Meeting	Steps in Learning	Activities	Time Alocation
1	1. Preparation	• Explain about the text that will be taught • Anticipate the structural features of a particular genre (see appendix I) • Students watch the video • Students ask some questions related to the video • Discuss about the video	15'
2	2. Modelling of the Text	• Teacher give worksheet to the students • Students read the text in the worksheet • Explain about the social function of the text • Give some questions to lead the students in finding the generic structure of the text • Students fill worksheet related to the linguistic features of the text	40'
3	3. Planning	• Give some text to the students and ask them to write the appropriate title for each text • Teacher facilitate the students to make vocabulary list that is used in report text related to animal • Ask the student to arrange the jumble words, frase, and sentences • Ask student to collect information related to report text text that is going to construct	15' 15' 20' 20'
4	4. Joint Construction of the Text	a. Teacher and students • Show a video to the students • Students answer some questions related to the video • Students make the outline of the text based on the questions given (see appendix II) • Students together with the teacher revise the outline • Students make a text based on the outline they made • Student revise the text together with the teacher • After finishing the revision, the student have already writen the text	70'
5		b. Students and students • Students work in small groups • Teacher show a video to the student • Students are given a worksheet. Students work in group to answer questions related to the video • After that students have to make their outline and then develop the outline into a text • After finishing their work, group exchange their work and give comment each other • Students may revise their work • Teacher choose some groups to display their work	70'
6	5. Independent Construction of the Text	• Ask student to make an outline of the text • Ask the students to develop the text	70'
7	6. Revising	• Students are asked to check their draft based on the guideline given • Students are asked to revise their work	70'

	• Students are asked to exchange their work • Students are asked to edit their peer's draft • Students are ask to revise and edit their draft based on the feedback they have got

CONCLUSION

Considering the students' obstacles in writing, the teacher should be able to teach it effectivelly. One effective approach for teaching writing is by using process-genre approach. Process-genre approach is the synthesis concepts of both process approach and genre based approach. Based on the previous studies which have been done in different scope, it can be seen that this approach can overcome students obstacles in writing. In the implementation of process-genre approach, the teacher should follow some stages. The procedure are preparation stage, modelling and reinforcing stage, planning stage, joint constructing, independent constructing stage, and revising stage.

REFERENCES

Babalola & Litinin, H.A. 2012. Effects of Process-Genre Based Approach on the Written English Performance of Computer Science Students in a Nigerian Polytechnic. *Journal of Education and Practice*. Vol 3, No 6, 2012.

Badger, R., & G. White. 2000. *A* Process Genre Approach to Teaching Writing. *ELT Journal*, (Online), 54 (2): 153-160.

Brown, H.D. 1994. *Teaching by Principles: an Interactive Approach to Language Pedagogy.* New Jersey: Prentice Hall.

Foo, T.CV. 2007. *The Effects Of The Process-Genre Approach to Writing Instruction On The Expository Essays of ESL Students In A Malaysian Secondary School*. Unpublished thesis.

Frith, J. 2016. *A process Genre Approach to Writing Transactional Letters*. www.developingteachers.com/articles_tchtraining/processgenre4_james.htm.

Grossman, D. 2009. *Masters in Teaching English as a foreign or second language:Process Approach to Writing*. University of Birmingham.

Hensel, P.R. 2008. *Common Students Writing Problem*. University of North Texas. Retrived March 15th, 2016

Hyland, K. 2003. *Second Language Writing*. Cambridge: Cambridge University Press.

Kementrian Pendidikan dan Kebudayaan Republik Indonesia. 2016. Peraturan Menteri Pendidikan dan Kebudayaan No. 21 tahun 2016 *tentang Standar Isi Pendidikan Dasar dan Menengah*. Jakarta. Kementrian Pendidikan dan Kebudayaan Republik Indonesia.

Kim, Y. & Kim, J. 2005. Teaching Korean University Writing Class: Balancing the Process and the Genre Approach. *Asian EFL Journal*. Volume 7. Issue 2. Article 5.

Megawati, F., & Mirjam, A. 2012. Comic Strips: A study on the Teaching of Writing Narrative Texts to Indonesian EFL. *TEFLIN Journal*, Volume 23, Number 2, July 2012.

Meyers, A.2005. *Gateways to Academic writing*. Pearson Education, Inc: New York.

Norrish, J. 1987. *Language Learning and Their Errors*. London: Macmillan Publisher Ltd.

Pujianto, D., & Emilia, E., 2014. A Process Genre Approach to Teaching Writing Report Text to Senior High School Students. *Indonesian Journal of Applied Linguistics*, Vol. 4 No. 1, July 2014, pp. 99-110.

Reonal, A.M. 2015. Process-Genre Approach in Teaching Exspository Writing in Secondary ESL Classes. *International Journal of Social Science and Humanities Research*, Vol. 3, Issue 3, pp: (187-191), Month: July - September 2015.

Richard, C. Jack and Renandya, A.W. 2002. *Methodology in Language Teaching*. USA; Cambridge University Press.

Rusonovci, X. 2015. Teaching Writing Through Process-Genre Based Approach. *US-China Education Review A*, October 2015, Vol. 5, No. 10, 699-705.

Taylor, G. 2009. *A Students' Writing Guide: How to Plan and Write Successful Essays*. Cambridge: Cambridge University Press.

Wang, L. 2003. Switching to First Language among Writers with Differing Second Language Proficiency. *Journal of Second Language Writing* 12 (2003) 347-375. Retrived March 15th, 2016.

Yah, A.N. 2010. *Why Writing in ESL is Difficult for Undergraduates in a Public University in Malaysia.* Kelantan; Published Article.

Yan, G. 2005. A process Genre Model for Teaching Writing. *English Teaching Forum*, (online), 43 (3): 18-26.

Developing of the Guidance Book: Utilizing of Social Capital for Senior High Schools in Yogyakarta

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Abstract: This research aims at developing social capital model to improve the quality of senior high school in Yogyakarta. In particular, it intends: (1) to develop a guidance book pertaining utilization of social capital; and (2) to underline the function of social capital to enhance the quality of education in senior high schools located in Yogyakarta. This is a research and development (R&D) study. The research subjects are sociology teachers in that area. The data were collected through questionnaires, observations, interviews and document study, supported by field-notes/logbook. These were analysed qualitatively. The result of this research is that the guidance book contained mechanism to utilize social capital model for increasing the quality of education. The eligibility of this guidance book has been confirmed by a content expert and a media expert. In addition, the eligibility of the book has been validated by the field testing with the teachers.

Keywords: a guidance book, utilizing social capital, senior high schools.

The social capital is not capital in the sense of wealth or money as in economics, but rather implies as assets or resources that are important in social life. Cohen and Prusak (2001) argue that social capital is a collection of active relationships between people, such as: trust, mutual understanding, and shared values and behaviors that bind the members of a network and allow for cooperation. Therefore, if social capital can be developed to its full potential, it can contribute significantly to the school's quality of education.

Social capital is a symbol of social life arising from the social networks that are bound by the norms, trusts and beliefs. It can automatically support people to have participation for moving forward together to achieve goals. It is based on that a person may not be able to encounter the various problems individually, but a person requires the solidarity and cooperation with others to find the problems solving. This condition also faces at schools. Schools need support from the whole elements (such as teachers, students, administrators, and so forth) for maintaining their quality. The participants of whole element in schools are a part of social capital. Unfortunately, most of headmasters, teachers and other school communities do not know what social capital is. Some of them have heard about this phrase, but do not understand how to maximize social capital to improve the quality of the schools.

When it can be managed properly, social capital can improve the quality of education. In addition, when it can be used synergistically, social capital can be an instrument to improve the quality of education in schools. Therefore we need a model that can be used for the development of social capital that are beneficial for improving the quality of schools.

This is a second year research. The output of the first year research was that producing a prototype handbook of social capital for the development of high school in Yogyakarta. The prototype, however, needs to be developed further and conducted due diligence, to ensure that the handbook can be used applicative in secondary schools in Yogyakarta.

SOCIAL CAPITAL

The term of social capital firstly was introduced by Lyda Judson Hanifan; an educator in the United States. The concept of social capital was recorded in 1916, entitled The Rural School community. She discussed how the public can monitor the progress of the school by of what the-called the school committee. Moreover, social capital is not the capital in the sense of wealth or money as in economics, but rather implies as assets or resources that are important in social life. Rather, social capital is about the value of social networks, bonding similar people and bridging between diverse people, with norms of reciprocity (Dekker and Uslaner 2001).

The structure of relations could help establishing obligations between social actors, create a trustworthy social environment, open channels for information, and set norms and impose sanctions on forms of social behaviors (Coleman, 1990). Robert Putnam (1993) explained the social capital as a value mutual trust between community members and the community leaders. Social capital is a social institution that involves a network, norms, and social trust that encourages social collaboration for the common good. Putnam also explained that social capital refers to the relationships between individuals, social networks and the norms of reciprocity and trustworthiness that arise from the relationship. In that sense social capital is closely related to what is called as a social virtue.

Bourdieu (1970) declared that social capital is something that has interconnected. This opinion also confirms that social capital refers to the advantages and opportunities that are someone in the community through membership in a particular social entity. According to Bourdieu, the involvement of individuals in a group will give them access to support collective belief in the group. In education, The World Bank (Grootaert, 2004) recommends six components of social capital that can be utilize. The components are: 1) groups and networks, 2) trust and solidarity, 3) collective action and collaboration, 4) information and communication, 5) social cohesion and interaction, 6) empowerment and politic action.

Social capital is a power which, among others, seek livelihood through networking and social relevance, which allows the combined social resources such as "*gotong-royong*"[1] or do a partnership that is mutually beneficial. Phenomenon in the field, many social activities are carried out in areas such as social gathering societies, "*tahlilan*"[2], farmers' groups, youth associations, music and other arts groups can strengthen the fabric of the community.

REPUTABLE SCHOOL

Related to the social capital issue, if an institution capable to utilize components of social capital, the quality of the institution will be increased. Quality in the context of education is an elusive term. In the school institutions, quality always related to the reputable school. Therefore, the reputable school in this research meant a school with a good quality. According Reddy (2007) sometimes school quality may be subsumed under the term educational quality. The term educational quality is a wider concept, where the focus of improving quality of education could begin with the learners' conditions to the very specific aspects of the school or classroom through to that of the educational system as a whole.

School quality can be interpreted from several points of view. Adams (Reddy, 2007) identifies at least 6 common usages of quality that are given by educators, namely: (1) Quality as a reputation. Reputation usually refers to institutions of higher education. The basis for reputation often includes information of inputs and outputs; (2) Quality as Input and resources.

[1] It is customary in Indonesia that people work together to clean the surrounding environments, public facilities and/or to help people who need assistance. These activities usually done by residents in a certain area.
[2] Muslims in Indonesia conducting gathered And Praying Together for the person who has died

Zamroni (2008) explain the quality can be interpreted towards the quality of inputs, such as the quality of principals, teachers, curriculums, libraries, and physical environments as well as the learning process; (3) Quality as a process. It refers to the way the educational inputs are used. (4) Quality as content, this refers to the learning material as the body of knowledge; (5) Quality as output and outcomes, quality as outputs are students' cognitive achievement, completion rates, entrance ratios to next level of education, certification, individual skills, attitudes etc; (6) Quality as value added. The value added of school quality can be assumed that the greater the internal improvement of teaching and learning process, the higher the added value of school quality (Cheng, 2001).

In addition, James Williams (Reddy, 2007) adds one more usage to this list, which is quality as satisfaction. Williams also said that the more exclusive or selective a school is, the higher its quality. Otherwise, Gaspeer (2002) said that quality is something that can be meeting the needs of customers. To straighten that, ISO 8420 clarified quality as the totality of characteristics of a product that supports the ability to satisfy the requirements specified. In line with that opinion, Sallis (2006) suggested quality as something that is in accordance with the specifications and standards set by the manufacturer (quality in fact). Sallis also argued the quality as something satisfying even exceed customer requirements (quality in perception).

FINDING AND DISCUSSION

Research in the second year was focused on the development and refinement of the guidance book to utilize social capital to improve the quality of schools. The readers will gain information about social capital concepts and theories, the strategy of the reputable schools utilizing social capital to maintain their qualities. In addition, the readers will also get step by step insights on how the other schools should learn the strategy of the reputable school. Putnam (1993), the features of social organizations, such as trust, norms and networks can improve the efficiency of society by facilitating coordinated actions.

The Guidance book "Social Capital" developed through the stages of research and development (Borg and Gall, 1989). The development is done through the stages as shown below:

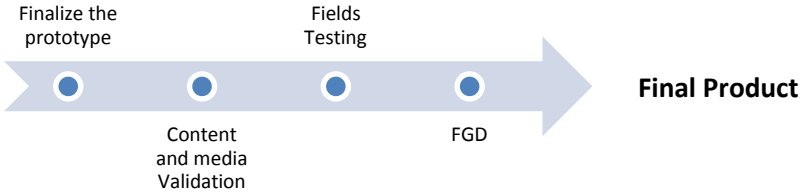

Figure 1: Step by step for improving the guidance book

In the first step, this research conducted review and revise the prototype that was developed in the first year research.

Afterwards, Validation and revision, the content expert and the media expert showed that the guidance book is good and feasible to use. It can be seen from the results of the assessment by questionnaire. The average score from media expert is 3.67 and the average score from content expert is 3.57. Both experts gave good scores/marks for the guidance book. However, a content expert suggests to the researchers to employ constructivism as a basic approach. The researchers should put the school as an arena for the development of a collective consciousness to produce value as a reference for the development of social capital. "Collective consciousness" becomes the key to develop social capital. The content that was delivered by

content expert is in line with Raka's opinion (Ancok, 2003) on to the terms of a good community seems referable to cultivate social capital. One of these requirements is to eliminate exclusivism characters.

Content expert and media expert highlight important and useful suggestions to develop the quality of guidance book. All of the suggestions provided the basis for the improvement. After making improvements based on feedback and suggestions provided by media expert and content expert, the guidance book tested through three stages of fields testing, which according to Borg and Gall three fields testing is important to do in order to see the usefulness of the development is done.

Furthermore, Research conducted three stage of fields testing with different number of respondents. The three stages of fields testing are: preliminary field testing (9 respondents), main field testing (15 respondents), and operational field testing (36 respondents). Basically, there is no difference between each test. The only difference is the number of respondents. Based on Borg and Gall theory, the number of respondent in every field testing always increases, for make sure the product can be used properly and has a good quality. The respondents in this research are teachers at SMAN 1, SMAN 3 and SMAN 8 Yogyakarta. These three are reputable schools in Yogyakarta. At the end of each phase, the guidance book be revised before continuing improvement in the subsequent field testing phases. Operational field testing is the final stage. The results of fields testing showed that the researchers have been developed a guidance book. The guidance book can be used in accordance with the expected goals. The following is a picture that show the graph results from fields testing.

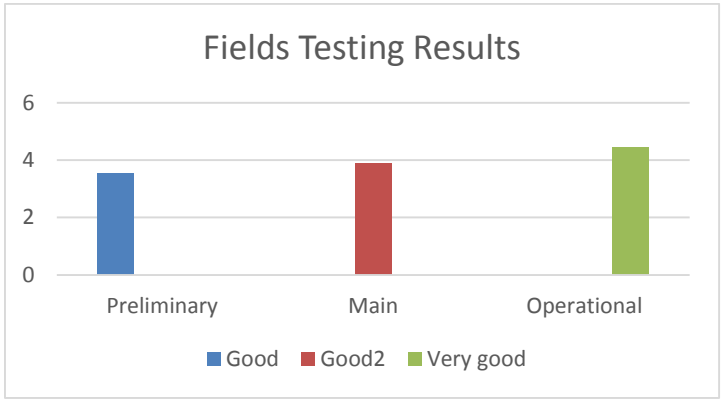

Figure 2: The Results from preliminary, main and operational fields testing.

The graph provides information about the results from three fields testing. As it can be seen, the highest result score was operational field test which was conducted on the latest stage. The result score always increased in each stage. The average score in the preliminary field testing was 3.52 (good). Afterwards, the average score in main field testing rose into 3.88 (good). The increasing trend was continued; the average score operational field testing reached 4.44 (excellent).

The Focus Group Discussion (FGD) is a final step for developing the guidance book. Some teachers who teach sociology are invited to participate in the FGD. They were chosen because the issue of social capital is a part of sociology. Therefore, it may be easier for these teachers to implement the ideas offered by the guidance book in their schools. Based on the FGD's results, it can be concluded that almost all of the participants satisfied with the guidance book. Most of all teachers' state that the guidance book has been prepared carefully and provides the concept of social capital and its urgency to be adopted in the schools.

The teachers stated that the book can be used as a reference to build relationships in all school community members. As stated by AC (initial name):

> "In my opinion, the guidance book of social capital is very good. It is because the guidance book gives a new color in achieving school goals through the social capital approach. Many people may think that increasing the quality of schools can only be conducted by building infrastructures. However, it may not be sufficient. We should also take into account intangible goods; factors that support the social system as well as school culture".

The following is a picture of the book cover that has been made:

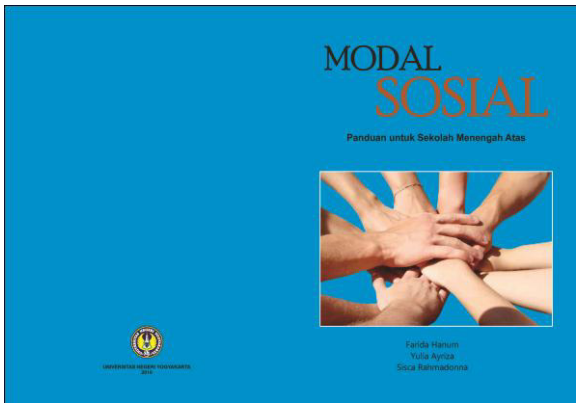

Figure 3: The guidance book

Overall, the research explains that to improve the school quality, many aspects should be considered, including the components of social capital. It is in line with Alvares (2016) which has been explained in her paper. When people need to assess the school quality, they should consider about student engagement; educator engagement; student access to and completion of advanced coursework; postsecondary readiness; school climate and safety; and any other school performance.

CONCLUSION

Having said the above, it is safe to argue that the guidance book has been developed through the correct stages of research and development. It can be concluded that the book can guide the utilization of social capital for senior high schools, especially in Yogyakarta.

Based on the assessment validation of content and media, it can be concluded that the content and media aspects presented in the guidance book utilization of social capital for senior high schools can be said to be good. This is evidenced by average score of 3.57 given by the content expert and 3.67 given by the media expert. The average score is in the range of 4 means good. Moreover, the average scores also supported from the operational fields testing that indicate the assessment average score is 4.44 on a scale of 5 or excellent.

This assessment is also confirmed by the results of the focus group discussion, the sociology teachers looked enthusiasm. They argued that social capital guidance book is near to ideal conditions. In addition, the teachers also found a book that was developed can be used to establish interaction between community members, principals, teachers, school administrators, students either individually or in groups according to the value and norms.

Recommendation

Based on the conclusions, the researchers gave some recommendations. The recommendation given by the researchers are as follows.

1. Stakeholder in schools need to do mapping and analysis of social capital that had been owned
2. All of school community members need to have the awareness to implement and support the utilization of the social capital
3. Stakeholder need to disseminate more widely the importance of social capital in schools, so every school can take advantages of social capital in accordance with the characteristics possessed.
4. It is necessary to continue the development of social capital guidance book to the development of social capital diffusion model. It is intended that the benefits from the guidance book can be more widely. Especially, to improve the quality of the schools.

REFERENCES

Ancok, D. *Modal Sosial dan Kualitas Masyarakat*. Paper Pengukuhan Gelar Guru Besar pada Fakultas Psikologi UGM

Borg, W. & Gall, Meredith Damien. 1989. *Educational Research*. New York & London : Longman

Alvares, B. 2016. What Are the Best Measures of School Quality? Educators Speak Out. September 14, 2016. 10:58AM. http://neatoday.org/2016/09/14/best-measures-of-school-quality/

Cheng. Y.C. 2001. School Effectiveness and School-based Management a Mechanism Development. London: Falmer Press

Cohen, D. & Prusack, L. 2001. *In Good Company*. Boston: havard Business School Press

Coleman, J. 1988. *Social Capital in the Creation of Human Capital*. *American Journal of Sociology* 94 (Suplement): S95-S120

Dekker, P. & Eric, M.U. 2001. 'Introduction.' Pp. 1 – 8 in *Social Capital and Participation in Everyday Life*, edited by Eric M. Uslaner. London: Routledge.

Djamaludin, A. 2003, *Modal Ssosial dan Kualitas Masyarakat*. Paper Pengukuhan Gelar Guru Besar pada Fakultas Psikologi UGM.

Fukuyama, F. 2001 Social Capital, Civil Society and Development, Third World Quartely.

Fukuyama, F. 1997. *Social Capital and the Modern Capitalist Economy*: Creating a High Trust Workplace. Stern Business Magazine, vol . no 1

Farida, H. 2010. Peran Pemimpin Komunitas Untuk Menggerakkan Modal Sosial (Studi pada Komunitas Kali Code Yogyakarta). Laporan Penelitian, LPPM –UNY.

Glasser, W. 1992. The Quality School, Managing Student without Coercion. New York: Haper Colling Publisher.

Grootaert., Christiaan., Narayan., Deepa., Jones., Veronica, N., et al, 2004. Measuring social capital : An integrated questionnaire. Washington, DC : The Word Bank.

Putnam, R. 1993. Making democracy work: civic tradition in modern Italy. Princeton: Princeton University Press.

Reddy, S. 2007. School Quality: Perspectives from the developed and developing countries. Azim Premji Foundation.

Zamroni. 2008. Pendidikan Untuk Demokrasi. Yogyakarta: BIGRAF Publishing.

Profitability: be Trapped by Competence Bias Case Study in User Charge Tariff of Highway Public Transport Exit Permit at Highway Public Transport Station in East Java

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Abstract: Highway public transport station is important transportation infrastructure. Physically to change transportation moda for passanger and place to consolidatian the vehicle. For government highway public transport station as place to put user charge. User charge used to finance local government. Hyman (2002:398-399) describe that user charge are prices determined through political rather market interaction. Political decision is action by manager. Manager must have competence (Spencer, 1993) managing efficienct market to be decision making policy so the government will get earning. The goal of this research is as the following. First to describe the profitability and competence bias for user charge tariff of highway public transport exit permit at highway public transport station in East Java. Second, how profitability and competence bias the user charge tariff of highway public transport exit permit at highway public transport station in East Java. This research use primary data with 192 person from informan group (77 highway public transport station manager, 77 driver and 38 transportation consument organization/ transportation board) to describe profitability and competence bias in user charge tariff of highway public transport station use discriptive analize and qualitative analize. Informan subyek needed from informan group until when enough to answer phenomena in this research. Decision making is ability to make consistent judgement with risk executive function (Missier at all, 2011). Efficient market hyphotesis will give information to predict opportunity (Timmermann and Granger, 2004). The competence biases lead to irrational behaviors and flawed decisions (Pompian, 2012, p.43), avoid flawed decisions local government must select person while recruit manager at highway public transport station. Selection based on especially knowledge competence, so station will get profitability by user charge tariff.

Keywords: profitability, competence bias, user charge tariff

Profitability is rhetoric. In application often occurred competence bias when efficiency market used in decision making. They can make deviation making decision process so lead irrational behavior and flawed decision (Pompian, 2012:43). Irrational decision taker use wrong method to problem solving (Peters, 2004). Efficient market hypothesis will make optimal predict base on complete information (Timmermann and Granger, 2004). User charge tariff is price by political decision making not market interaction (Hyman, 2002:398-399). Political decision making by government manajer. Influence factor in decision making is competence. Competense are motives, traits, self concept, knowledge and skills (Spencer, 1993).

Since January 1st 2001, local government have autonomy to manage their area so they must find local income to budget their operational. Since January 1st 2017, A type highway public transport station managed by Transportation Ministry, B type by Governor and C type by mayor or regent in local government.

Local government anbitious to reach big income from tranportation sector especially in highway public transport station is different with local condition in station, only under 2% local

income (Wikardojo, 2001). They can not get profit because flawed decision making by competence bias.

RESEARCH FOCUS

Profitability and competense bias descriptive in highway public transport station user charge tariff. How profitability and competence bias in highway public transport station user charge tariff.

GOAL

As input for local government in user charge tariff regulated, and idea for future study about user charge tariff profitability

RESEARCH METHOD

Approach

Research begin by exploration to find data, because knowledge about profitability, competence bias in user charge tariff not preparedness (Singarimbun, 1989:4). This is qualitative research, research for understanding profitability phenomena that occurred in user charge tariff in highway public transport station. The profitability phenomena as consequency of competence bias. By discritive to clear phenomena with scientific methods (Moleong, 2004:6). Qulitative method to understand meaning social and personal problem when station manajer must be judgement user charge tariff(Cresswell, 2014:4). By Freirian critical theory (Muhadjir, 2002:199) that highway public transport history have natural reality problem which public participate is important to decide user charge tariff. In other case public judgement without public participate make a decision flawed. So government agent have to involve people behavior when they want to make succesfull program.

Qualitative researcher is key instrument in his researh, this researcher have knowledge experience about transportation and accounting, so can reconstruction profitability and bias competence in highway public transport user charge tariff. Researcher want to critic competence bias in profitability of user charge when decision making tariff, so researher must be presence when collecting data and interview informan.

Research location in East Java Provinci is a good economic growth area. Economic growth will make transportation growth, but transportation growth not equivalent with user charge income (Wikardojo, 2001).

DATA AND RESEARCH

Profitability

Highway public transport station accounting performed by ability to reach target earning from local government income and expenditure budget. User charge is earning tool. User charge tariff decided by political judgement (Hyman, 2002), that recommendate by actor in highway public transport station as station manager and driver or vehicle owner.

Competence Bias

Station manager selection base on especially by traits competence. Manager selection in government institution often not recommended by knowledge competence, so occure knowledge competence bias.

Criticism: Profitability

Measurent of succesfull earning by ability to reach the earning target not perform a good accounting. If cost more than earning so make defisit for finance. In some cases defisit finance will be closed by debt.

Competence Bias

Competence bias on knowledge competence make the decision making flawed. Someone nothing have knowledge for decision making, they depend on another person.

CONCLUSION

Measurement of succesfull earning in station base on ability to reach the earning target not profitability from earning minus operational cost
Competence bias of station manager occurred on knowledge competence

Recommendations

The station manager make a report contain an operational cost to reduce earning so we can look profitability earning
Recruitment system for station manager must base on competence especially knowledge

REFERENCES

-----, (2014) *UU N0 23 Th 2014 tentang Pemerintahan Daerah*
-----, (2012) *Pedoman Penulisan Karya Ilmiah,* State University of Malang, Malang
-----, (2001) *Peraturan Pemerintah Republik Indonesia Nomor 66 Tahun 2001 tentang Retribusi Daerah*, Direktorat Jenderal Otonomi Daerah Departemen Dalam Negeri, Jakarta.
-----, (2001) *Peraturan Daerah Kota Malang Nomor 3 tentang Perubahan Peraturan Daerah Kotamadya Daerah Tingkat II Malang Nomor 3 Tahun 1999 tentang Retribusi Terminal,* Pemerintah Kota Malang.
-----, (2000) *UU No 22 Th 1999 Tentang Pemerintahan Daerah*, J&J Learning, Yogya.
-----, (2000) *UU No 25 Th 1999 Tentang Perimbangan Keuangan Antara Pemerintah Pusat dan Daerah*, J&J Learning, Yogya.
-----, (2000) *UU No 34 Th 2000 Tentang Perubahan Atas Undang-undang No 18 Tahun 1997 Tentang Pajak Daerah dan Retribusi Daerah.*
-----, (1999) *Peraturan Daerah Kabupaten Daerah Tingkat II Malang Nomor 4 Tahun 1999 tentang Retribusi Terminal di Kabupaten Daerah Tingkat II Malang,* Pemerintah Kabupaten Daerah Tingkat II Malang.
-----, (1995) *Keputusan Menteri Perhubungan No 31 Th 1995 Tentang Terminal Transportasi Jalan*, Departemen Perhubungan, Jakarta.

Anderson, J.E. 2006. *Public Policy Making: An Introduction*, Boston: Houghton Mifflin Company

Bhandari, R.D. 2006. The Demographics of Overconfidence, V. 7, N. 1.

Bowmandkk. 1999. Loss Aversion in a consumption – saving model, *Journal of Economic Behavior and Organization, v.38, I 2, February 1 1999, p. 155-178.*

Bruton. 1981. *Introduction to Transportation Planning*, Hutchinson Technical Education.

Creswell, J.W. 2014. *Research Design Pendekatan Kualitatif, Kuantitatif dan Mixed,* Yogyakarta, Pustaka Belajar.

Croley, S.P. 2008. *Regulation and Public Interests: The Possibility of Good Regulatory Government*, Princeton: Princeton University Press

Cudd, et. al. 2006. Mimicking Behavior in Repurchase Decisions, V. 7, I, 4

Dumairy. 1999. *Perekonomian Indonesia*, Erlangga, Jakarta.

Dye, T.R 2005. *Understanding Public Policy*, Eleventh Edition, New Jersey: Pearson Prentice Hall

Endah, S. 2005. *Pengembangan SDM Berbasis Kompetensi*: Solusi Untuk Meningkatkan Kinerja Organisasi.

Fischer, F., Gerald, J.M. & Mara S.S. 2007. *Handbook of Public Policy Analysis: Theory, Politics and Methods*, (Eds.).Boca Raton: CRC Press

Gerston, L.N. 2002. *Public Policy Making in a Democratic Society: A Guide to Civic Engagement*, Armonk: M. E. Sharpe

Grable, et. al. 2004. Projection Bias and Financial Risk Tolerance, V. 5, I. 1.

Hilton. 2001. The Psychology of Financial Decision Making: Applications to Trading, Dealing, and Investment Analysis

Handoko, H. 1984. *Manajemen*. BPFE, Yogyakarta.

Hyman, D.N. 2002. *Public Finance*, Thomson South Western, Ohio

Kahneman, et al. 2001. Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias*, Journal of Economic Perspectives, 15 (1): 193-206*

Kaimuddin, N. 2004. *Pelatihan dan Pengembangan SDM*, Merdeka University, Malang.

Kamayanti, A. 2016. *Metodologi Penelitian Kualitatif Akuntansi,* Yayasan Rumah Peneleh, Jakarta.

Larch, M. & Martins, J. N. 2009. *Kebijakan Fiskal Membuat di Uni Eropa – Sebuah Kajian Praktek dan Tantangan Kini*, Routledge.

Missier, T., Mantyla, W.B. de Bruin. 2012. Decision Making Competence, Executive Functioning, and General Cognitive Abilities, *Journal of Behavioral Decesion Making, V.25, I.4, October 2012, p. 331-351.*

Mizutani dkk. 2009. Overconfidence Makes Men Compete More. *Journal of Behavioral Economics and Finance, V. 2, 2009, p 60-73.*

Moleong, L.J. 2004. Metode Penelitian Kualitatif. Edisi Revisi. Bandung: PT Remaja Rosdakarya.

Musgrave, R.A. 1959. *Theory of Public Finance*, McGraw-Hill, New York

Musgrave, R.A., Peacock, A. T. 1958 *Classics in the Theory of Public Finance*, Cromwell-collier, New York

Nofsinger. 2005. Social Mood and Financial Economics, V. 6, I. 3.

Olson. 2006. A Literature Review of Social Mood, V. 7, I. 4.

Ogata, M., Kohara, F. Ohtake. 2012. The Product of One's Effort or Result of Luck? The Japanese Beliefs about the Determinants of Social Succes, *Journal of Behavioral Economics and Finance, V. 5, p 137-151*

Peacock, A.T., & Wiseman, J. 1961. *The Growth of Public Expenditure in the United Kingdom*, Oxford University Press, London

Peters. 2004. Simple and Complex Market Inefficiencies: Integrating Efficient Markets, Behavioral Finance, and Complexity, *V. 4, I. 1,*

Qien. 2012. Regret Aversion and Informational Cascade in Sequential Trading Model, *Journal of Behavioral Economics and Finance, V. 5, 2012, p 60-71*

Rabin, dkk. 2001. Anomalies: Risk Aversion, *Journal of Economic Perspectives, 15 (1), 2001: 219-232*

Sanusi, A. 2011. *Metodologi Penelitian Bisnis*, Salemba Empat, Jakarta.

Sehity dkk. 2002. Hindsight Bias and Individual Risk Attitude within the Context of Experimental Asset Markets.

Siebenmorgan dan Weber. 2004. The Influence of Different Investment Horizons on Risk Behavior, V.5, I, 2.

Simon, H. 1957. *Administrative Behavior*, Macmillan, New York.

Singarimbun, M., dan Effendi, S. 1989. *Metode Penelitian Survai*, LP3ES, Jakarta.

Smith, K.B. & Christopher W.L. 2009. *the Public Policy Theory Primer*, Boulder: Westview Press

Spencer, L.M. & Spencer S.M. 1993. *Competence at Work,* USA, John Willey and Sons Inc.

Stewart D. & David. 1980. *The Theory and Practice of Transport*, Heinemann

Tamin, O. Z. 1997. *Perencanaan dan Pemodelan Transportasi*, ITB, Bandung.

Tamin. 1999. Evaluasi Tarif Angkutan Umum dan Analisis '*Ability to Pay'* (ATP) dan '*Willingnes to Pay'* (WTP) di DKI Jakarta, *Jurnal Transportasi FSTPT*, vol 1 no 2, 121

Timmermann dan Granger. 2004. Efficient Market Hypothesis and Forecating, *International Journal of Forecasting, V. 20, I. 1, January-March 2004, p. 16-27.*

Vroom, V.H. & Yetton, P.W. 1973. *Leadership and Decision Making,* University of Pittsburgh Press, Pittsburgh

Vuchic, V.R. 1981. *Urban Public Transportation*, Prentice Hall, New Jersey.

Walpole, M. 1995. *Ilmu Peluang dan Statistika Untuk Insinyur dan Ilmuwan*, ITB, Bandung.

Warpani, S. 1990. *Merencanakan Sistem Perangkutan*, ITB, Bandung.

Wicaksono, A. 1997. Perilaku Penumpang Bus Antar Kota: Model Pemilihan Tempat Naik dan Moda Akses – Studi Kasus Kota Probolinggo. *Simposium II FSTPT di ITS*, Surabaya.

Wikardojo, S. 2001. *Analisis Pergerakan Orang dan Kendaraan di Terminal Bus yang Mempengaruhi Retribusi Terminal Bus (Studi Kasus Terminal Bus di Jawa Timur)*. Tesis, Unibraw, Malang.

Wikardojo, S. 2012. *Pengaruh Kompetensi, Kebijakan dan Modal Operasional Ekonomi terhadap Tarif Retribusi Jasa Pemberangkatan Bus di Terminal Bus di Jawa Timur.* Disertasi, Unmer, Malang

Building Self-directed Learner Through Authentic Assessment

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Abstract: This research investigates how authentic assessment that is set in the beginning of the lecture in the learning contract can build self-directed learner. This research uses a descriptive qualitative analysis by analyzing seven students' tasks using authentic assessment, including the reflection of their experience, feeling and expression after one semester learning. The data are taken from the compilation of tasks that is submitted at the end of the semester. The results show that in each of the seven tasks build a self-directed learner. Though it was difficult at first, along the semester they are habituated to do the tasks and made them to be a self-directed learner. Based on these findings it is suggested that the task using authentic assessment set in the beginning of the lecture in order to make the students to be aware of learning in different ways.

Keywords: self-directed learner, authentic assessment, task, reflection

Learners in higher education environments are adult learners. Students are referred to as adult learners whom are associated with the ability of students being able independently to learn everything they need it. The ability independently and actively manages and plan the learning activities of individuals referred to as Self-Directed Learner (O'Shea, E. 2003). According to Merriam, S. B (2011) Self-Directed Learner students can distinguish between adults and children. Self Directed Learner can be described as a process in which individuals have the initiative with or without external assistance in terms of arranging learning needs. Iwasiw (1987); Hiemstra, R. (2011) stated that the Self-Directed Learner is a form of learning when an individual has responsibility for planning, implementing and evaluating the results of his own. O'Shea, E. (2003) adds that the Self-Directed Learner is part of the personal learner in terms of planning and organizing all of their learning activities. It can be described as a whole that the Self-Directed Learner is a form of consciousness that shows a learning process that emerged as an initiative and individual responsibility in determining the learning materials, learning objectives, the way to acquire learning resources, the way to implement strategy of learning as well as how to evaluate the work of the done independently. This learning process is already owned by students because students have ability to develop responsibility for their own learning.

Self-directed learner by Dembo M.H. (2004) can also be interpreted as self-manage or control factors that affects student learning, students can create the optimum conditions for learning and removing the obstacles that interfere with the activity or learning process in which they live. A successful learner can find a way to overcome all obstacles that hinder the learning activities, and can surpass targets learning objectives that have been determined. Dembo's statement M.H. (2004) may explain why different students with middle school students that is located on a different classroom environment, learning begins with teacher referrals turn into the direction of the students themselves. The learning activities in universities no longer have to be directed teachers or educators regarding when, where and how to learn. In connection with this, the student should be able to carry out directively on how to learn independently by developing a variety of potential components of a self-directed learner.

According to Dembo M.H. (2004) self-directed learner has six indicators, namely: 1) Motivation is an internal process within the individual that affect habits such step selected; This includes the internal processes of interest, trust, power of understanding, as well as the expectations held within the individual; 2) Strategies and methods of learning which is a method or process of the selected individuals used as an individual strategy to obtain large amounts of information; 3) The social environment, related to the ability of individuals to obtain the information needed to learn from the social environment; 4) Management of time, related to an individual's ability to regulate the distribution strategy in time used to study a variety of capability and obtain information; 5) physical condition, relating to an individual's ability to actively prepare for the physical state is always ready to learn with good concentration. 6) Performance, related to the performance or results shown on the learning process through which then feed into the evaluation of themselves

According to Merriam, S. B. (2001) based on learning Self-Directed Learner which is then developed a model of self-directed learning to develop a process of self-directed learner within the individual (student). The main purpose of learning model of self-directed learning is to develop the capacity or ability of the individual to be able to directly control their learning activities independently. In each lesson is implemented, students' learning results obtained are expected to correspond to the learning objectives, and aligned with assessment instruments used in the assessment of learning outcomes of learners (students). Assessment instruments proceedings against self-directed learner should also be able to dig up all the information accurately to determine the development of self-directed learner and appropriate forms of assessment to be used that is an authentic assessment.

The success of students are affected by various factors, the most decisive factor is the study of students individual (M.H Dembo, 2004). How can individual motivate themselves in a process, process information, and set various conditions to suit the individual and can make optimal learning conditions in the social good, body condition, and the condition of learning resources used to support learning activities. In these circumstances the way of learning are more important than how much time is spent on learning. Learners who are able to condition themselves to study well is to find an effective way to the learning process which is passes with time reckoned with, while who cannot be reconditioned will use less efficient so less effectively to support learning activities

Authentic assessment is an assessment based on the activity of learners in accordance with the actual state or close to the real performance of learners (Svinicki, M.D. 2004). Furthermore Gulikers, J.T.M, et al. (2004) Svinicki, M.D (2004) mentions six characteristics of authentic assessment, namely: 1) a realistic assessment, shows the actual capabilities; 2) assessment requires consideration and innovation, which the participants are expected to have more than one solution to the problem; 3) assessment is according to the discipline of students passed; 4) assessment in accordance with context related to the ability shown students; 5) assessments ask students to demonstrate the ability to solve large scale complex problems; 6) assessment allows for feedback, training, and the opportunity the second time in resolving the issue. In connection with all six characters are so authentic assessment has components construct knowledge, emphasis on investigation and utilization assessment according to ability at school/ universities.

One example of authentic assessment is the portfolio, while the portfolio is in accordance with the design of authentic assessment. The portfolio is designed to obtain information on all topics are studied, such as the selection of sources and data required, the selection of reference sources to support data, strategy development is done, a note about a good evaluation of learners and educators. In accordance with a process that can be recorded in a portfolio, then this assessment can be used as a form of assessment that can develop a Self-Directed Learners.

Through a portfolio assessment also can get information about the extent to which self-directed learner develops the self-learners. Good portfolio quality, describes students who have the ability to regulate things that are used to solve complex problems and manage independently which is needed during the learning process.

Every task that is collected in the portfolio are equipped with reflection, evaluation of students and teachers as feedback to develop future learning task. This authentic assessment gives learners the opportunity to exercise and evaluation to enhance the ability and skill in solving problems. In the process of portfolio assessment can train and develop various capabilities, namely: 1) motivation to learn; 2) training and application of strategies and methods of effective learning for the individual; 3) being able to condition the social environment as a place of learning; 4) expanding the ability to set the time; 5) preparing the maximum condition on self to learn; 6) and being able to develop an evaluation of the performance of the learning outcomes that have been passed. These six components that can be developed through the portfolio are components of self-directed learner. Based on the previous description, the problems that arise, "How authentic assessment can build the capacity of self-directed learner, as well as can authentic assessment build the capacity of self-directed learner is balanced from all six components?

METHODS

This study aimed to describe the ability of an authentic assessment can build self-directed learner. Description of authentic assessment to builds self-directed learner will be described qualitatively. Data was collected through examination of the documents on student assignments that are relevant to the instruments which is having been prepared. Document task that examined the form of evidence of learning activities collected in the portfolio as a form of authentic assessment. Within the portfolio there are seven kinds of elements interrelated tasks. Number of documents examined portfolio from 26 students.

The instrument used to collect the data developed based on six elements of Self-Directed Learner by Dembo M.H, (2004). Complete instrument can be seen in Table 1. After the data are collected, then the data were analyzed based on a percentage amount of appearance of elements of self-directed learner student of assignment documents which is checked.

Table 1 Table of Data Collection

College student	Elements of Portfolio					
I	II	III	IV	V	VI	VII
1						
2						
....						
26						

The maximum value in each element is given 5. Score 5 if assignments or elements of the portfolio can show six indicators that builds Self Directed Learner. The value of 4 if the elements of the portfolio shows the 5 indicators, the value of 3 to 4 indicator, the indicator value of 2 to 3, and a value of 1 if the elements of the portfolio only shows two indicators Self Directed Learner.

The data have been obtained then analyzed using descriptive qualitative analysis. The point value in the form of scores then totaled and calculated to the percentage, which is to describe the magnitude of Self Directed Learner built during the learning process to the

assessment process. Value percentages are then categorized into five categories, namely builds levels: very low, low, medium, high, and very high. Criteria of all five of these categories can be seen in Table 2.

Table 2 Criteria Percentage Level of *Self Directed Learner*

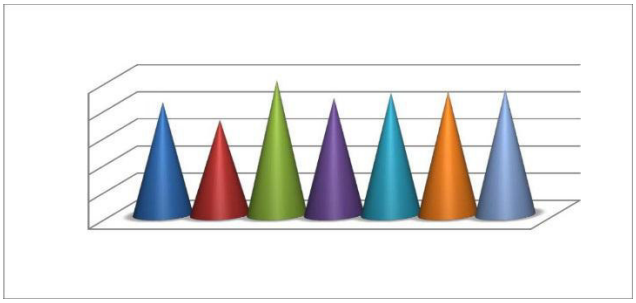
No	Achievement Value	Category	Explanation
1.	25,00-40,00	Very low	Much less builds an authentic assessment of Self Directed Learner
2.	41,00-55,00	low	Less builds an authentic assessment of Self Directed Learner
3.	56,00-70,00	medium	Enough builds an authentic assessment of Self Directed Learner
4.	71,00-85,00	high	An authentic assessment of good at building Self Directed Learner
5.	86,00-100,00	Very high	Very good an authentic assessment of in building Self Directed Learner

FINDINGS

Based on the analysis performed on seven types of tasks in the portfolio assignment I (Journal of Learning) classified in the high category, 83.1% and tasks II (analysis of curriculum development) classified in the moderate category is 70.0%. Whereas in all five other task that Duties III, IV, V, VI, VII (Analysis ministerial regulation, analysis of KD, Development of Lesson Plans, Development Syllabus for Annual Program and for a program on each Semester, and Reflection in the end of the semester) belong to the category of builds self-directed learning which is as high as respectively has a value 99.23%, 86.15%, 90.0%, 90.77% and 92.31%. Overall use of authentic assessment can build Self Directed Learner with a percentage of 87.36% the value of belonging to a very high category. The complete results of the data obtained based on the analysis results can be presented in Table 3.

Table 3 Percentage Occurrences of Self Directed Learner

Self Directed Learning	Elements of Portfolio							Total/ average-2
	I	II	III	IV	V	VI	VII	
	108	91	129	112	117	118	120	795
%	83,1	70,0	99,23	86,15	90,0	90,77	92,31	87,36



An authentic assessment of is an assessment that can provide motivation as well as a goal so that learners can develop self-directed learning in self-learners. Based on the analysis it appears that the whole process of authentic assessment can provide a good encouragement for learners to organize and formulate their learning activities. Learners are able to know what is needed and what must be done to be able to do learning activities. This is in accordance with the results of Embo, M. et al (2010) indicated that authentic assessment is a method that can raise the self-directed learning in self-learners. Authentic assessment is the driving force and motivation for learners to continue to develop themselves

The portfolio consists of seven tasks which are to provide motivation and encouragement for students to be able to manage and organize learning activities, evaluating results and determining of what should be the strategy. What can be shown that learners already developed the ability to self-directed learning? From the results of the portfolio which is composed by can be seen how students build a motivation to develop their portfolio well. The results of the portfolio can describe how the motivation of learners generate action to control the behavior which is can be set up strategies to be applied in various situations resolve the issue.

Percentage of the total is shown on the 7 tasks in the portfolio compiled by learners describe 87.36% Self Directed Learner on the learner. This shows that the authentic assessment provide encouragement and a motivation to develop a Self Directed Learner on learner. The assessment process is one of the efforts of educators to facilitate develop the capacity and skills of life skills in self-learners. Proficiency in question here is more emphasis on the ability of self-learners independently, able to motivate themselves to organize the whole purpose of the learning process, strategy and time should be structured, learning resources to look for, the preparation of a good environment for learning, so that learners are can effectively achieve learning results accordance to learning goals that they had set on.

Point most tasks build Self-Directed Learner is on duty III (Analysis Regulation) which shows the percentage of the highest of 99, 23%. This task is a task that most and takes a lot of time to get it done. The characteristics that this task has been successfully motivating learners are to organize and formulate all their resources to solve the task independently. Experience gained from the task can develop independently of motivation and will foster the responsibility to conduct the learning process. The assessment process is based on genuine evidence of the work of in preparing an analysis of the system applicable curriculum.

In connection with the learning process associated with each task is also certainly related to the assessment process. Learner assessment process is conducted for the purpose as a means of evaluating the success of the learning process. Authentic assessment is a form of assessment that can authentically convey any assessment activities to provide all the information the ability to learner (Paris, S.G and Paris A. H. 2001). Portfolio is included in the authentic assessment to facilitate learners to perform a self-assessment. Self-assessment gives the opportunity to be able to organize and manage their own learning which is more effective for students.

In accordance with the principle of Self-Directed Learner is described by Paris (1999): (1) a self-assessment to understand something deeper; (2) personal Management to think about the methods and strategies used; (3) Regulation of time to complete a variety of ways; (4) Personal Regulation to gain the experience of each individual. The portfolio is used as an authentic assessment which can directly experience the students to have a fourth of the principle of Self- Directed Learner. Boud, D (1995) explains that the assessment serves as a mechanism that controls the learners to be able to prepare for what should be done with regard to something that he needs to learn.

At the point the task II (analysis of curriculum development) classified in the medium category with a percentage of the value of the emergence of Self-Directed Learner on learners

of 70.0%. This task has the lowest percentage among the seven assignments contained in the portfolio. This task is related to the development of learners to understand the development of a curriculum that occurred during the period of time, based on the results obtained showed that the percentage of the character of this task is less controlling to prepare learners to understand the problem. It shows the assessment on the assignment will be to develop some aspects of Self-Directed Learner. Garrison, D.R (1997) stated that self-directed learner is a basic human competence. A good assessment will form a system that could control the learners so that learners can release all their abilities.

An authentic assessment of contains projects and tasks to be completed by learners. Project and task is to motivate students to build self-motivated to develop skills competency self-directed learner that includes motivation, strategy, management time, able to condition the social environment as a place to learn, to set conditions for maximum learning, and be able to develop an evaluation on Performance results learn. The integration between learning activity is with good judgment will guide the to be able to carry out independent learning activities, as well as being able to find a variety of ways accordance to with the character themselves in completion problem. Garrison (1997); Boud, D (1995) stated that the assessment is very important in any activities of the learning process. An authentic assessment of provides influences especially for adult learners at the college who have a goal to become a professional person.

McLoughlin, C and Luca J. (2002) stated that the activities of learning in college are learning professional. Each must have professional skills in accordance with field studies. Professional capability is greatly supported by the Self-Directed Learning in which learners should be able to independently with or without encouragement from the outside develop the ability to motivate yourself to learn, able to carry out effective strategies to support the process of learning activities, utilizing a variety of sources as well as time to solve a problem. Hiemstra, R. (2011); O'Shea, E. (2003) wrote that students have the ability and typical to float responsibility for their own learning. However, without assessment of students or are less able to do things systematically so that the implementation effectiveness of the learning activities are not integrated with each other or tend to cut drop out between the learning activities with other learning activities. This will make the learners are not able to Completion problem properly.

In general the results obtained from studies conducted show that an authentic assessment which has a role to building the skills Self-Directed Learner on Students. An authentic assessment of that serves as a mechanism to control the learners to continue to float the Self-Directed Learner on capabilities within each. Based on the importance of the assessment in the learning activities, especially to enhance the independence of the assessment selected noteworthy, the learning should use an authentic assessment which can access all the information on the development of as well as a good mechanism to develop a Self-Directed Learner on learners.

CONCLUSION

Authentic assessment can build self-directed learner of learners with the percentage rate of 87.36%. Authentic assessment builds a self-directed learner to function as a mechanism that controls the system in order to always develop the self-directed learner in themselves. Authentic assessment is an assessment that is professional so as to support professional learning activities at the college level.

At each learning activity is to note the type of assessment used. Ratings used must be appropriate to the learning objectives to be achieved as well as the competence to be developed

in self-learners. Authentic assessment is suitable for use as assessments that can build basic competencies possessed are self-directed learner competencies that can support into a professional.

REFERENCES

O, Shea, E. 2003. Self-directed learning in nurse education: a review of the literature. Journal of Advanced Nursing, 43 (1): 62-70.

Merriam, S.B. 2001. AndragogI and Self-Directed Learning: Pillars of Adult Learning Theory. New Direction for Adult and Continuing Education, No 89, Spring 2001. A Publishing Unit of John Wiley & Son,inc.

Hiemstra, R. 2006. Is The Internet Changing Self-Directed Learning? Rural Users Provide Some Answer. International Journal of Self-directed Learning, 3 (2): 45-59.

Dembo, M.H.2004. Motivation and Learning Strategies for College Success, A Self-Management Approach second Edition. New York: New Paltz.

Svinicki, M.D. 2004. Authenthic Assesment: Testing in Reality. New Direction for Teaching and Learning No. 100. Winter 2004. Wiley Periodicals, Inc. (online:https://www.researchgate.net/profile/Marilla_Svinicki/publication/227699674_Authentic_assessment_Testing_in_reality/links/0a85e53bef572e3b72 000000.pdf), diakses 15 Februari 2016.

Gulikers, J.T.M., Theo, J.B. & Paul, A.K. 2004. A Five - Dimensional Framework for Authentic Assesment. ETR & D, 52 (3). (Online: http://dspace. library. uu. nl), diakses 15 Februari 2016.

Embo, M.P., Erik, W.D, Martin, V., Cess, P.M., Van Der, V. 2010. Assessment and Feedback to facilitate Self-Directed Learning in Clinical Practice of Midwifery students. Medical Teacher. (Online: embo: http://users. ugent.be/~mvalcke/CV/embo.pdf), diakses 23 Februari 2016.

Paris S.G. & Paris A.H. 2001. Classroom Applications of Research on Sel-Regulated Learning. Educational Psychologist, 36 (2): 89-101. (Online: http://lchc.ucsd.edu), diakses 23 Februari 2016.

Boud, D.1995. Assesment and learning: Contradictory or complementary. Assesment for Learning in higher education. London: Kogan (online: http://www.teacamp.eu), diakses 27 Februari 2016.

Garrison, D.R. 1997. Self-Directed Learning: Toward a Compehensive Model. Adult Education Quarterly, 48 (1): 18-33. (online: www.researchgate.net), diakses 23 Februari 2016.

Mcloughlin, C dan Luca J. 2002. A learner-centred approach to developing team skills through web-based learning and assesment. British Journal of Educational Technology, 33 (5): 571-582. (online: http://www.speakeasy-designs.com), diakses 27 Februari 2016.

The Implementation of Lesson Study in Improving the Primary School English Teachers' Professionalism on Developing Materials

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Abstract: The implementation of lesson study as a means of improving teacher professionalism has been under research for long. In fact, a teacher generally acts like an actor/actress who is to perform many different roles at different times (Byrne, 1992; Brown & Lee, 2015). Inasmuch as the many roles the teacher should possess, s/he is required to always have efforts to develop her/himself professionally through informal and formal academic forum to pursue credentials, one of which is conducting lesson study for ongoing improvement of instruction. Lesson study, as a matter fact, has been popular in Japan to promote teachers' professional development since 1990s. This practice has provided positive and significant impact on the improvement on the teachers' way of teaching and students' learning (Murata and Takahashi, 2002). Teachers will attempt to improve the lesson after conducting the lesson study with their colleagues, experts on education, and stake holders. The benefits of the implementation of lesson study have been verified by the results of research in America and Japan (Yoshida, 1999) and in Indonesia, exactly at *SMA Lab* Universitas Negeri Malang (2008). Due its positive impact on professional development, the lesson study was then put into empirical study to the primary lab school teachers. Ten English teachers were involved in the study to develop interactive student worksheets. Therefore, the design adopted is action research with four stages in two cycles: planning, implementation, observation and reflection. It was discovered that the teachers and students have displayed a positive response on it.

Keywords: lesson study, English teachers' professionalism, materials

A teacher in general acts like an actor/actress who will have to perform many different roles at different times, depending on the kind of activity the students are doing to accomplish learning goals. S/he might be as a controller, conductor, manager, facilitator, as well as consultant (Byrne, 1992; Brown and Lee, 2015). As controller, the main duty is to determine what the students do, when to speak, and what language forms they should use. First, as conductor or director, the job is to make sure that the students know what to do and to observe that they practice it effectively. Second, as manager or monitor, the main responsibly are to plan lessons, structure segments of classroom time, control objectives of the classroom, keep the students directed towards goals, deal with ongoing evaluation and feedback. Third, as facilitator or stimulator, the main concern is to promote the students' intrinsic motivation by permitting them to discover language through using it pragmatically. Eventually, as resource or consultant, the primary duty is to be available for assistance and advice if needed.

Inasmuch as the many roles the teacher should possess, s/he is required to always have efforts to develop her/him professionally through informal and formal academic forum to pursue higher qualifications. In fact, there are a lot of opportunities for self-development such as joining an (English) club, attending formal classes, attending a self-access center/library, reading any resources about teaching, joining local organizations to discuss problems, attending workshops/ in-service trainings/seminars, or conducting lesson study which leads to build

pathways for ongoing improvement of instruction. Lesson study, as a matter fact, has been popular for many years in Japan to promote teachers' professional development. The genesis of conducting "lesson study" for professional development commented in Japan since 1990s-the time on which Japanese public education was legally put into effective. This practice has provided positive and significant impact on the improvement on the teachers' way of teaching and students' learning. According to Murata and Takahashi (2002), it is not easy to incorporate new instructional ideas and materials in classrooms unless we see how they actually look. Further, they exclaim that in lesson study, we will observe what goes on in the lesson more objectively, and that helps us comprehend the crucial ideas without being overly concerned with other issues in our classrooms. In other words, teachers will see and attempt to improve the lesson after they conduct the lesson study with their colleagues, experts on education, and stake holders (principals and supervisors on education).

Lesson study refers to a process in which teachers engage in continually to improve the quality of the experiences they provide for their students. In the lesson study, one of the key components in these collaborative efforts is "the research lesson," in which, typically, a group of instructors (called the lesson study group) prepares a single lesson by designing a lesson plan, which is then observed in the classroom by the lesson study group and other practitioners, and afterwards the lesson is analyzed during the group's post-lesson discussion. Through the research lesson, teachers become more attentive to the teaching and learning process (Takahashi and Yoshida, 2004). The implementation of lesson study benefits not only for the teachers but also the students and the school as a whole. This brings a positive impact on the improvement of the process of teaching and learning as a whole. This has been verified by the results of research carried out by the teachers and students in America and Japan (Yoshida, 1999) as well as in Indonesia, exactly at *SMA Lab* Universitas Negeri Malang (2008). The school discovered that at the first try-out in the academic year of 2004-2005 most teachers (55%) and students (43%) disagreed about the implementation of lesson study during the instructional process, however, after three-year of practice, in the academic year of 2008-2009, the result was unexpected that is all teachers and students (100%) agreed with the implementation of lesson study for they have obtained positive impact on the process of teaching and learning. This indeed accommodates teachers' professionalism as targeted by the Indonesian government in that all teachers are required to be formally certified.

As stipulated in Law of the Republic of Indonesia Number 14, 2005 and Regulation of the Ministry of National Education Number 16, 2007, teachers and college/university lecturers are prescribed to be academically and professionally competent in that they ought to be knowledgeable, skillful, as well as professional in conducting their educational duties. Being competent in terms of pedagogy, personality, social affairs, and professionalism, they are then legally certified to be teachers or lecturers in a particular level of education. Having fulfilled the qualifications previously mentioned, they possess obligations to be conducted and deserve rights to be obtained. To be academically and professionally competent, teachers may have some alternatives, among others by conducting a lesson study in their teaching and learning process in their own classroom.

Such qualifications are also compulsory for elementary school teachers at Lab School of University Negeri Malang. The teachers should be qualified in their profession, however, based on interviews with some teachers at the school, it was discovered that (1) not all teachers are sufficiently competent in conducting instruction in the classroom; (2) there was no prior experience to conduct lesson study to solve academic problems, and (3) the making of worksheets has not met the requirements of good communicative worksheets (high mark: 58 & low mark: 40 out of 142 points).Therefore, the implementation of lesson study might assist them in improving their way of teaching in order to help students study more actively. This

article is intended to improve the English teachers 'professionalism through the implementation of lesson study at the primary school (*SD Lab*) of Universitas Negeri Malang, East Java, Indonesia. The following discusses some theoretical insights related to the study and some previous studies.

Legal Documents of the Ministry of National Education Republic of Indonesia

The Law of the Republic of Indonesia Number 14, 2005 deals with teachers and college/university lecturers 'rights and responsibilities, and Regulation of the Ministry of National Education Number 16, 2007 on the Standards of Academic Qualifications and Teacher s' Professional Competences. This document is mostly concerned with what teachers/lecturers should do/possess and what they deserve to obtain as a return. In one hand, they, for instance, are compelled to carry out such responsibilities as: 1) improving themselves academically by attending Strata 1 (S1) or Diploma 4 (D4) Program for the *Sarjana* Degree, 2) making efforts to accomplish the national education goals, 3) having willingness to realize the competences required by the government, namely competences in pedagogy, competences in personality, competences in social affairs, and competences in professionalism through the education program for teacher professionalism, 4) conducting qualified and well-planned instructions including assessing the output of the teaching and learning process, 5) being creative and innovative to improve students' intelligences and competences, etc. On the other hand, they possess the rights to (1) be formally certified if all obligations are fulfilled, 92) be well-paid and have other financial benefits, 93) be spiritually, physically and mentally safe at work, 94) be regularly promoted on the basis of their achievements at work, etc. Besides the aforementioned obligations and rights, the law also states sanctions which are among others in the forms of: 1) direct oral reminder, 2) written reminder, (3) delaying promotion, and (4) lay-off with or without benefits.

In addition to the teachers and college/university lecturers' rights and responsibilities above, there also exist the standards of academic qualifications and teacher s' professional competences depicted underneath.

Regulation of the Ministry of National Education Republic of Indonesia

The Regulation of the Ministry of National Education Number 16, 2007 contains two items: the standards of academic qualifications and teacher competences. As mentioned in the former, teachers are obliged to be formally educated with the following criteria.

1. Teachers for any levels of education- from pre-school up to secondary schools should hold the Strata 1(S1) degree or Diploma IV (D-IV) at the minimum.
2. The academic qualifications for teachers with special expertise, if urgently required, can be legalized through feasibility/ equivalency test by universities appointed.

The latter item, however, is concerned with the teacher competences. For this study, the competences are focused on those of the elementary school teachers'. As stated in the regulations, the teachers should be equipped with the integration of the four competences, i.e., competence in pedagogy, competence in personality, competence in social affairs and competence in professionalism. As a teacher, s/he should be pedagogically competent in 15 (fifteen) standards, namely, (1) understand the learners' characteristics from different viewpoints, such as physical, moral, social, cultural, emotional, and intellectual; (2) be well-equipped with the theories and principles of learning; (3) skillful in developing a curriculum; (4) conducting a well-planned instruction; (5) utilizing ICT for instruction; (6) accommodating learners' to actualize their potency; (7) promote effective, emphatic and decent communication

with the learners; (8) conduct assessment and evaluation in instruction; (9) make use of the results of assessment and evaluation for betterment in the teaching and learning process; and (10) conduct a reflection. From the viewpoint of **personality**, there are 5 (five) competences teachers should have, namely they should (11) conduct in accordance with religion, social norms, Indonesian laws and culture; (12) be honest, have positive moral and be a good model for learners and society; (13) exhibit maturity and wisdom; 14) show great integrity in the profession and 15) respect profession ethical codes. From the social-competence point of view, s/he should 16) conduct wisely, objectively, inclusively and should not act discriminatively in terms of religions, races, physical conditions, family background and economic -social status; (17) promote effective, emphatic and decent communication with the learners, colleagues, parents and society; (18) easily adapt to new workplaces all over Indonesia with various culture; (19) develop a good communication in his/her professional community. In short, the Indonesian teachers are required to fulfill the standards of academic qualifications and teacher competences to be professional teachers. One of the approaches to develop their professionalism is through the implementation of lesson study.

The Point of View of Lesson Study

A teacher acts like an actor who will have to perform many different roles at different times, depending on the kind of activity the students are doing to accomplish learning goals. S/he might be as a controller, conductor, manager, facilitator, as well as consultant (Byrne, 1992; Brown, 2001). Inasmuch as the many roles the teacher should possess, he is required to always have efforts to develop themselves professionally through informal and formal academic forum to pursue higher qualifications. There are a lot of opportunities for self-developments, one of which is via conducting a lesson study to build pathways for ongoing improvement of instruction.

The genesis of conducting "lesson study" for professional development commented in Japan since 1999- the time on which Japanese public education was legally put into effective. To be exact, it started in the 19th century. The adoption of lesson study in Japan was intended to enable teachers who traditionally used individualized instruction to learn group instruction skills from their peers in Western countries. This practice has provided positive and significant impact on the improvement on the teachers' way of teaching and students' learning. According to Murata and Takahashi (2002), it is not easy to incorporate new instructional ideas and materials in classrooms unless we see how they actually look. Further, they exclaim that in lesson study, we will observe what goes on in the lesson more objectively, and that helps us comprehend the crucial ideas without being overly concerned with about other issues in our classrooms. In other words, teachers will see and attempt to improve the lesson after they conduct the lesson study with their colleagues, experts on education, supervisors on education and other stake holders.

The meaning of lesson study is of two folds. According to Fernandez, and Yoshida (2001) (2001),it first refers to a process teachers engage continually to improve the quality of the experiences they provide for their students. Also, it may mean a form of research that provides opportunities for teachers to take a central role as investigators of their own classroom practice and to become life-long autonomous thinkers and researchers of teaching and learning in the classroom. By means of conducting this, teachers are then competent in improving curricula, textbooks, and other relevant instructional materials. In fact, there are three major scopes of lesson study to be put into practice. i.e., school-based lesson study, cross-school lesson study (district-wide), and cross-district lesson study (regional or nation-wide). In lesson study, one of the key components in these collaborative efforts is "the research lesson," in which, typically,

a group of instructors (called the lesson study group) prepares a single lesson by designing a lesson plan, which is then observed in the classroom by the lesson study group and other practitioners, and afterwards the lesson is analyzed during the group's post-lesson discussion. Through the research lesson, teachers become more attentive to the teaching and learning process (Takahashi and Yoshida, 2004). Murata and Takahashi (2002) are of the opinion that three attributes characterize lesson study as follows. Firstly, lesson study provides teachers an opportunity to observe teaching and learning in a real form which incorporates planning, implementation, observation, and reflection on classroom practice. By looking at the actual practice, they are able to promote a common understanding of what good practice looks like. This, in turn, assists students in comprehending what they are learning; secondly, Students are still within the heart of the professional development activity in that teachers have a great chance to carefully examine and understand the process of learning in the actual classroom practice; and thirdly, lesson study is teacher-led meaning that teachers can be actively involved in the process of instructional change and curriculum development.

According to Fernandez and Yoshida (2001), and Takahashi and Yoshida (2004), lesson study involves teachers coming together to focus on three main activities. Those are (1) *Identifying a lesson study goal to focus on.* In this stage, teachers think of their students and identify important gaps between aspirations they have for them and the results that they are actually accomplishing with these students; (2) *Conducting a small number of "study lessons" that explore this goal.* For this, teachers cooperatively draw up a detailed plan for the study lesson as preparation. Then, it comes to the phase of implementation in which a teacher teaches the study lesson in an actual classroom while other group members conduct an observation employing an observation sheet which contains aspects to be looked on; (3)

Reflecting about the process in this last phase, teachers are engaged in a post-lesson discussion and review the data together in order to (1) make sense of educational ideas within their practice; (2) share perspectives about teaching and learning; (3) learn to see their practice from the student's point of view; and (4) enjoy collaborative support among colleagues. In short, the aforementioned procedure can be elaborated as follows: defining a teaching problem on the basis of the student needs, lesson study planning with the student and the teacher as the focus, focusing the lesson on student's thinking, learning and misunderstanding, evaluating the lesson's impact on student learning and reflecting on its effect, revising the lesson based upon the data gathered, teaching the revised lesson to a new class of students, evaluating and reflecting, and sharing the results.

The Development of Lesson Study in Indonesia

Lesson study has been applied in Indonesia since 1998, the period when IMSTEP (Indonesia Mathematics and Science Teacher Education Project) was launched in at 3 (three) universities- Universitas Pendidikan Indonesia (UPI), Universitas Negeri Yogyakarta (UNY) and Universitas Negeri Malang (UM) in collaboration with JICA (Japan International Cooperation Agency) in order to improve the instruction of Math and Science subjects in Indonesia. The result of the implementation indicated that the students' achievements in Math and Science had increased year by year, so in 2001 IMSTEP was disseminated to school level as a piloting project in which university lecturers worked hand in hand with school teachers to share experiences to strengthen collegial relationship. Later (from 2003-2005), the project was followed up and socialized in a wider scope, promoting a cooperation with the corps of principals and teacher association in the provinces in which the three universities are located. Due to its significant benefits for the teacher self-development, since 2008 the system has been expanded via a program called "Lesson Study Dissemination Program for Strengthening

Teacher Education in Indonesia (LEDIPSTI)". Since then, the implementation of lesson study has been popular (Susilo, et al., 2009).

As a matter of fact, not all school teachers have had the experience to conduct lesson study to improve their professionalism, and one of the examples is those teaching English at the UM primary lab school. The type of lesson study being applied is the one which is school-based focusing on particularly on the group of English teachers teaching young learners at the age of 10-12 years old.

Active Learning for Young Learners

Based on the Creating Learning Communities for Children (CLCC) program be launched by the government of Indonesia, UNESCO and UNICEF (2002), the main purpose of it is to make the quality of children's learning better through the development of Active, Joyful, and Effective Learning (AJEL). What is AJEL? It has been featured by the following attributes. Firstly, children develop their skills and understanding on the emphasis on learning by doing through varied learning activities. Secondly, teachers make use of various stimuli and instructional media including employing environment to make their instruction more interesting, joyful and relevant. Thirdly, classroom is organized in such a way that attractive books and other written materials are exposed and reading corners are available in each room. Fourthly, cooperative and interactive ways of learning – pair and group work are developed. Finally, teachers encourage children to discover their own solutions to problems, to express their own thoughts, and involve them in creating their own school environment (Scott & Ytreberg, 1999; Cameron, 2007; Kartini, 2009 and Pinter, 2011).Thus, AJEL is considered more appropriate with the characteristics of young learners who prefer to learn by seeing, observing, playing, trying, hearing, or doing something for short. Such a technique is universally applicable for young learners including those going to primary lab schools. For UM Primary Lab School in particular, in addition to the implementation of AJEL, the learners are exposed to the use of worksheets for language practice. Therefore, the English teachers are compelled to design and produce their own worksheets.

Developing Communicative Worksheets

This section discusses subtopics related to what a worksheet is, the functions of worksheets, the requirements of developing good worksheets, and some guidelines of how to develop the worksheets for language learning. What is a worksheet? A worksheet is a piece of paper on which there is a series of questions or exercises to be done bu a student, or a piece of paper on which work that has been done is recorded (Hornby, 2000). According to Lloyd-Jones (1985), the worksheets may function as additional materials to the main learning activities in class, additional materials for establishment, enrichment, remedial or reinforcement. Furthermore he postulated that good worksheets should reflect such features as clarity of objective, the use of simple language, information content, appropriate theory, and variety of learning activities, variety of locations and learning situations and interesting appearance. In addition to these, the communicative worksheets are attributed by a special design and content in that they should contain communicative activities, use either realistic, authentic or real world tasks, implement communicative interactions for spoken English, and finally possess style and appropriate which depict levels of formality, contextualized content with different situations and register.

To produce the worksheets, there are guidelines to follow, among others, firstly, they refer to the available curriculum or syllabus, or for the Indonesian context, to the standars of content

which are then broken down into basic competences and indicators or for the international standard schools, the modified standards of content ; secondly, the materials to be developed are mapped out; thirdly, the tasks in the worksheets should reflect the currently applied system of learning like contextual teaching and learning (CTL) and communicative language learning; fourthly, they develop all macro skills of language learning with the insertion of language components to learn the macro skills, and at last, they apply the theory of technology-based learning. In addition to this, from Cunningsworth's point of view (1995), a quick-reference checklist as criteria is supposed to be employed by a teacher to evaluate instructional materials to satisfy the learners' needs. The checklist comprises such items as 1) aims and approaches dealing with whether or not the materials presented and the way of presentation are suited to the need of the learners; 2) design and organization which refer mostly to how the materials are graded, sequenced and staged; 3) language content and skills dealing with what language components and skills are taught; 4) topic referring to the variety and range of topics to be learned; and 5) methodology which is concerned with the techniques used to practice the language. Still other experts, Davies and Mitchell (2002) exclaim that supplementation, which means 'adding something new' such as worksheets or add-ons, stems primarily from the recognition of deficit in that it is an attempt to bridge the gap between a course book and the demands of a public examination, or a coursebook and students' needs. With the availability of these, it is expected that the gap between learners and material may be smaller.Their ideas are supported by Spratt et al. (2005) postulating that some main reasons of designing worksheets are 1) replacing unsuitable material in the coursebook, 2) filling gaps in the coursebook, 3) adding variety to teaching, 4) giving learners extra language or skills practice, and 5) providing suitable material for learners' particular needs and interests.

Indeed, according to Davies and Mitchell (2002), in designing worksheets, there are general issues that require to be addressed. Firstly, which approach is being adopted- a deductive approach or inductive one to develop the learning activities. The first way is by providing rules and eaxmples and the learners are instructed to apply the rules; whereas, the latter is in reverse that is the learners are to provide inferences based on what the examples are. Secondly, the relationship between the formats of the exercises and the purpose they intended to serve is another issue to figure out. The types of exercise format for accuracy- types of gap filling, matching and the like are commonly different from that of the development of fluency. Thirdly, the format for practice is not the same as the one for testing which does not provide support, typically in the form of examples. Next, since learners usually use the worksheet individually or in groups with no teacher's help, a teacher should prepare different worksheets for different levels of learners. In other words, the exercises in the worksheet are graded from easy to more difficult, a principle often followed in testing. Finally, layout of the worksheet as well as the effectiveness of the worksheet should also be taken into consideration. Hence, the production of good worksheets should follow the principles previously mentioned. The following is the discussion of materials for worksheets for the primary school learners on the basis of the syllabus adopted.

The materials developed for a worksheet are oriented to linguistic components- pronunciation, vocabulary and grammatical patterns and language skills- listening, speaking, reading and writing at the primary school level. In reference to the adopted syllabus (Cambridge Syllabus, 2002) at the primary lab school of *Universitas Negeri Malang*, the materials for worksheets incorporate the development of competences in the 4 (four) language skills: listening, speaking, reading and writing, each of which should be in line with the level of education. For instance, the competences for the 3rd graders are the basis for the the development of linguistic competences for the 4th graders. Let say, if the 3rd graders are required to read various genre-based texts, the 4th graders are then to compare the texts. Since

a university-based lab school is not the same as the regular primary school, it is indispensable to describe the notion of what a lab school is.

Previously Related Studies

The implementation of lesson study benefits not only for the teachers but also the students and the school as a whole. This brings a positive impact on the improvement of the process of teaching and learning as a whole. This has been verified by the study carried out at the upper secondary school (*SMA Lab*) of Universitas Negeri Malang as depicted in Table 1 below.

Table 1 Results of the study on the implementation lesson study at *SMA Lab* of Universitas Negeri Malang from 2004 up to 2009

	Academic year	Agree (%)		Disagree (%)	
		Teachers	Students	Teachers	Students
1.	2004-05	45	57	55	43
2.	2005-06	73	68	27	32
3.	2006-07	93	86	7	14
4.	2007-08	99	92	1	8
5.	2008-09	100	100	-	-

It can be concluded then that at the start of the implementation of lesson study 55% teachers were against it since they confessed that they were all selected teachers of S1 graduate of institute of teacher training with sufficient qualifications of being teachers, therefore, such a self-development program was considered unnecessary. However, after the program had been put into practice for 4 (four) years, 99% of them appreciated the implementation of lesson study for they gained a lot of improvement in the teaching and learning process. The more observers attended a classroom, the more input the teacher would obtain for her/his improvement in teacher practice or instruction for the sake of the students' achievement.

Another study conducted by Yoshida (1999) in Japan showed that the adoption of lesson study has enabled teachers who traditionally applied individualized instruction to learn group instruction skills which was long introduced in western countries. Further, according to Murata and Takashi (2002), it is not easy to incorporate new instructional ideas and materials in classroom unless we see how they actually work. In lesson study we will observe what goes on in the lesson objectively, and attempt to improve the lesson based on the results of the observers. On the basis of the results of the previous studies it is evident that the implementation of school-based lesson study has been potential for the body of teachers of any field of study to improve themselves professionally by means of scientific procedure. Therefore, the recent study is intended to adopt this to promote the primary school teachers' professionalism in particularly devising worksheets of the English subject for their students.

RESEARCH METHODOLOGY

This study adopts a school-based action research since it focuses on a particular problem and a specific group of subjects- English teachers in a certain primary school, namely Primary Lab School of State University of Malang which requires a particular action to solve the problem. According to Kemmis and McTaggart (2000), Mills (2003), and Burns (2010) action research is any systemic inquiry carried out by teachers to collect information about how well they teach and their students learn with the intention to develop reflective practice. The study starts from factual problems that appear in the teaching and learning process. This means that

the study is conducted in the classroom in order to develop a strategy in improving students' ability. Based on the result of the preliminary study, it was identified that (1) the English teachers at this school never had any experiences to conduct a lesson study as a forum to develop their professionalism, and (2) the teachers were still confronted with problems dealing with developing instructional materials in the form of worksheets for the students to introduce new materials as well as reinforce previous learning items. The problems probed are among others: the philosophy of developing worksheets, the linguistic features, variety of the tasks provided, and mechanisms of how to lay out the materials presented. Therefore, to assist them in the development of instructional materials, the researcher conducts this study through the implementation of lesson study to improve their competence in developing worksheets for young learners.

Setting and Subjects of the Study

This study was conducted at *SD Lab* of Universitas Negeri Malang located in Jalan Simpang Bogor, Malang in the neighborhood of Universitas Negeri Malang. Since the school functions as a laboratory, it has characteristics of its own that is, firstly, the school functions a a demonstration school for other primary schools. As evidence, about 50 (fifty) primary schools throughout Indonesia have been working together to improve the process of teaching and learning. Secondly, the school curriculum implemented is a blend of the national and Cambridge curriculums. Thirdly, the medium of instruction for all subjects is English, and finally, the students are geared into their own learning pace utilizing worksheets produced by the teachers. Since 2007 the school has formally collaborated with the centre of Cambridge International Education (CIE for short) to be one of the international-based schools in Malang, East Java, Indonesia. As one of the CIE members, there are some consequences to follow, among others: (1) the school adopts the CIE English curriculum; (2) the teachers should be formally certified by CIE; and (3) the students obtain double certificates - one from the school and one from CIE (Guideline for CIE, 2016).

For this study, 11 (eleven) English teachers are treated as subjects, teaching at the lower as well as higher level grades- Grades 1 up to 6. The teachers are graduates of Strata-1 Program of the English Department of State University of Malang majoring in the English Education. After having taught for 2 (two) years, they cater for opportunities to be certified by CIE to be internationally certified English teachers which are provided with privilege's to legal access to CIE for any instructional guidance through the use of specific password. It implies that the certified teachers are formally trained in many pedagogical aspects by CIE through the internet-based facilities. As evidence, not all English teachers have been internationally certified so they have not been sufficiently competent in among others developing their own worksheets. In other words, not all teachers can get in touch with CIE except those with CIE certificates. For this reason, the study is conducted to assist the uncertified teachers in developing instructional materials in the form of worksheets through the implementation of lesson study so that both kinds of teachers- internationally certified and uncertified ones can cooperate to develop worksheets. Therefore, the appropriate design for this study is action research.

Research Procedure

Action research (AR) is applied and the proposed design by Kemmis and McTaggart (2000), Mills (2003) & Burns (2010) is adopted to conduct this study. It was intended for the English teachers in that particular school as setting. Prior to planning an action, a preliminary study was carried out in order to provide a general picture of what problems the English

teachers at this primary school have encountered in developing instructional materials in the form of worksheets for the students. Based on the results of observations and informal interviews with them, it was found out that they had problems in the development of the worksheets in terms of the linguistic features, variety of the tasks provided, and mechanisms of how to lay out the materials presented. It is hypothesized that they lacked of the theoretical insights of developing instructional materials for worksheets. The complete procedures of the design are composed of 4 (four) phases that is planning the action including preparing the materials on the theoretical insights of lesson study and development of worksheets, preparing the instruments of the study and the criteria of success, and preparing the schedule for workshops; implementing the action meaning carrying out the plan to the subjects of the study; observing the action meaning carefully watching the implementation of the use of worksheets with an observation sheet and evaluation sheet, and lastly, reflecting on the action meaning analyzing the result of the action. The four phases occur in one cycle, and this study underwent two cycles due to some limitations elaborated underneath.

Results of the Preliminary Study

The data of the preliminary study were collected through such instruments as direct observations and informal interviews with the English teachers. Based on the results of the preliminary study, it was evident that not all English teachers were internationally certified by CIE yet, as a result (1) they were not trained to develop instructional materials with the required standard; (2) they lacked of the philosophy of developing worksheets, and (3) they still had problems in the linguistic features, variety of the tasks provided, and mechanisms of how to lay out the worksheets; (4) the quality of worksheets were under standard. Therefore, this study is conducted to improve their competence to develop the worksheets on the basis of criteria of how to design and develop them. Since this study applies the AR design, there are actions to be put into practice, planning the action, implementing the action, observing the action and reflecting the action.

Planning the Action

In this stage the researcher made planning like writing a handout on the theoretical insights of how to develop acceptable communicative worksheets and to conduct a lesson study, preparing power point for presentation in workshop, setting procedures for the workshop on producing worksheets, setting up the criteria of success for the teachers, developing instruments such as observation sheets, evaluation checklists, field notes, and questionnaires. A handicap type was prepared to record the activities both in the course of the implementation of lesson study and the process of utilizing the worksheets during the teaching and learning process in class. The handout and the power point slides contain such ideas as clarity of objective, the use of simple language, information content, appropriate theory, variety of learning activities, variety of locations and learning situations, interesting appearance, a special design, communicative activities, use either realistic, authentic or real world tasks, implement communicative interactions for spoken English, style and appropriatete which depict levels of formality, contextualized content with different situations and register.

Setting procedures for conducting the workshop on producing worksheets through the implementation of lesson study is the following step. Three steps are required in conducting a lesson study- plan, do, and see.

To discover whether or not the study has been achieved, the researcher set up the criteria of success for both the teachers and the students. First, the teachers have been considered

successful in producing the worksheets if they integrate the 7 (seven) variables in the evaluation sheet for their worksheet and obtain the total score of 85 out of 142 points (low score: 38 points and high score: 142). Second, 95% of the students can do 80% of the exercises and tasks provided in the worksheets. Next, such instruments as an observation sheet, an evaluation checklist for the worksheet as well as a questionnaire are developed. The observation sheet is addressed to the instructional process in order to observe the implementation of the worksheets in class, covering 5 (five) variables incorporating interaction between the teacher and students, students and students, students and worksheets, silent period and content of the worksheets. On the other hand, the checklist with 1-4 Likert scale is composed of 7 (seven) variables as follows: aims and approaches, design and organization, language content, skills, topic, methodology, layout and other considerations. At last, the questionnaire is for the students to provide critical and constructive remarks on the use and content of worksheets.

Implementing the Action

In order to achieve the objective of the study, there should be systematic steps to be taken in conducting the study as follows. Firstly, worksheets were designed and developed by the English teachers through the implementation of lesson study (plan-do-see-based approach) guided by the researcher. Prior to the production of the worksheets, the teachers mapped out the materials for the worksheets with reference to the English syllabus adopted as well as the guideline of how to produce qualified worksheets. Secondly, after the teachers were through with the making of worksheets, the researcher evaluated them using the evaluation checklist. Due to imperfect production of the worksheets, revisions were done. Thirdly, prior to the instructional process with the use of worksheets the researcher and the English teachers had a conference to synchronize perceptions in carrying out the research procedure to avoid misinterpretation and misunderstanding. Eventually, appointed model English teachers implemented the worksheet in the teaching and learning process.

Observing the Action

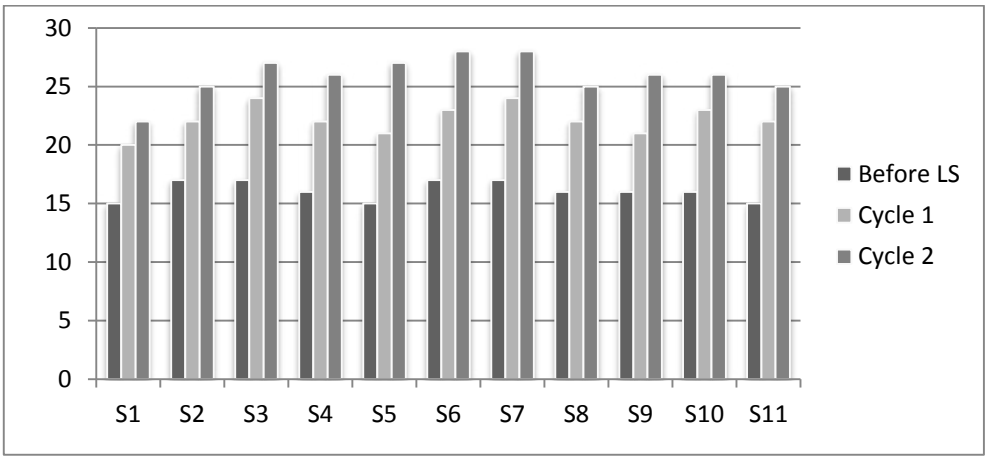
In this stage the instruments- the observation sheet, the questionnaire, the field notes and the handycam were utilized to record and collect data. While the model teachers conducted the teaching and learning process, the researcher and the other teachers observed the activities employing the observation sheet and the handycam. The data obtained from the students in the course of observations were evaluated to examine the utility of the worksheets in the teaching and learning process, and the ones from the handycam and the field notes were for other variables which were not included in the observation sheet. At the end of the class sessions, the students were requested to fill in the questionnaire to evaluate the utility of worksheets in the teaching and learning process. Hence, the synergy of the data obtained from various instruments functions as triangulation in that the results of the instruments were employed to cross check the validity of the results of the data.

Reflecting the Action

Data analysis and reflection were part of this stage. Since many kinds of instruments were adopted, the data obtained from each instrument were analyzed accordingly, that is, the analysis depended on the nature of the data. The data of the observation sheets and the field notes were descriptively explained, the evaluation checklist was quantitatively described, and the data of the questionnaire were estimated by frequency count. This study underwent two cycles.

Research Findings and Discussion

This study involved two cycles in which in both cycles the four phases were implemented. There were 11 (eleven) meetings in Cycle I since some underlying theoretical insights like the notion of lesson study, types of task, student active learning, international English framework, and production of communicative worksheet were introduced to the teachers before the development and implementation of worksheet they conducted. In Cycle I, the teachers' worksheets were still under the criteria of success determined, i.e., almost all teachers achieved below 85 (95% < 85). It seemed that they had problems in providing clear incomplete instructions, sequencing tasks from the easiest to more difficult one, applying writing mechanics and providing a rubric for assessment in the worksheet. Also, since the worksheet had modified version, the students were unable to accomplish 80% of the tasks given. As a consequence, Cycle II was conducted in two meetings and the results were improving that is 90% of the teachers have reached the score of 85, and only two teachers had the score of 80. The complete picture of the study is depicted in the following graph- before the implementation of lesson study, the result of Cycles I and II.



Having analyzed the graph by comparing the results of both results of Cycles I and II, the researcher can infer that after the completion of the two cycles the teachers, the teachers are more aware of the producing communicative worksheets as displayed in Appendix 7.

Based on the teachers' comments, it revealed that lesson study is to improve the effectiveness of the experiences that the teachers provide their students. The first thing, they understood about lesson study is that it is a long process. Teachers come together to identify a problem that they want to solve. Then, they spend months doing research and planning a lesson. They felt very enthusiastic too because in lesson study will create a solution and then they are ready to talk about it. Lesson study also supports teachers to improve teaching and learning in the classroom. This idea is in link to what some studies and experts have claimed that lesson study is indispensable for any teachers as a medium to improve both pedagogical and professional competences through reflective teaching (Yoshida, 1999; Murata and Takahashi, 2002; Takahashi and Yoshida, 2004; *SMA Lab* Universitas Negeri Malang, 2008). This positive impact on the teachers' professionalism was strengthened as well by the students' opinions postulating that the teacher-made worksheet is now more dynamic due to the various communicative tasks provided and the way each task is assigned, not only individually but also in pair and in group work.

CONCLUSIONS AND SUGGESTIONS

It can be concluded that the implementation of lesson study can improve the English teachers' professionalism on developing instructional materials in the form of student worksheet. With the improved design and content of the worksheets, the students are more dynamic working with their peers as a variation of individual work.

The findings of the study provide significant contributions to the following parties. Firstly, for *SD Lab*, the implementation of lesson study can be disseminated to other primary schools all in the region. Secondly, for the English teachers at *SD Lab*, they are reinforced to improve the process of teaching and learning of English by means of routine implementation of lesson study and simultaneously encourage their professional development. Thirdly, for other teachers of other subjects at *SD Lab*, they can learn how to improve the process of teaching and learning as well as develop professionally through lesson study. Eventually, for other researchers, they are encouraged to investigate the implementation of lesson study in other primary schools in their region to make teachers more professional in their job.

REFERENCES

----------. 2002. Active, Joyful, Effevtive Learning (AJEL). UNESCO and UNICEF.

----------. 2005. *Undang-Undang Republik Indonesia Nomor 14 Tahun 2005 tentang Gurudan Dosen*. Jakarta: Depdiknas.

----------. 2007. *Standar Kualifikasi Akademik dan Kompetensi Guru*.Permendiknas RI Nomor 16 Tahun 2007. Jakarta: Badan Standar Nasional Pendidikan.

----------. 2007. *Cambridge English Teaching Framework.* UCLES. Retrieved from http://www.cambridgeenglish.org/teaching-english/cambridge-english-teaching-framework/

Brown, H.D. & Lee, H. 2015. *Teaching by Principles*. New York: Pearson Education.

Burns, A. 2010. *Doing Action Research in English Language Teaching. A Guide for Practitioners.* New York: Routledge.

Byrne, B.M.. 1992. *Investigating Causal Links to Burnout for Elementary, Intermediate, and Secondary Teachers*, paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, April.

Cameron, L. 2007. *Teaching Languages to Young Learners*. Cambridge: Cambridge University Press.

Cunningsworth, A. 1995. *Choosing a Coursebook*. Oxford: Macmillan Heinemann.

Davies, A. and Mitchell, K. 2002. *Materials Evaluation and Design for Language Teaching*. Edinburgh: Edinburgh University Press.

Fernandez, C. ,& Yoshida, M. 2001. Lesson study as a model for improving teaching: Insights, challenges and a vision for the future. In *Eye of Storm: Promising Practices for Improving Instruction.* Retrieved from: http://www.cbe.org/PDF/EyeoftheStormFernandez.pdg

Hornby, A.S. 2000. *Oxford Advanced Learner's Dictionary.* Oxford: Oxford University Press.

Kartini. 2009. *Pembelajaran Menyenangkan dan Inovatif ? Bergabunglah di Lesson Study! SMA Laboratorium UM:* News Letter Volume VIII-No.14-Januari 2009

Kemmis, S., & McTaggart, R. 2000. Participatory action research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 567–605). Thousand Oaks, CA: Sage

Mills, G.E. 2003. *Action Research: A Guide or the Teacher Research*. Second Edition. New Jersey: Merril Prentice Hall.

Murata, A & Tsuchida, I. A. 2002. *Vehicle to Connect Theory, Research, and Practice: How teachers thinking changes in district-level lesson study in Japan.* In D.L. Haury (Ed.). Proceedings of the twenty-fourth annual meeting of North America chapter of the international group the Psychology of Mathematics Education. Columbus, OH: ERIC *Clearinghouse for Science, Mathematics, and Environment. Pp.1879 – 1888.

Pinter, A. 2011. *Teaching Young Language Learners*. Oxford: Oxford University Press.

Lloyd-Jones, R. 1985. *How to Produce Better Worksheets.* Auckland: Anchor Brendon.

Scott, W.A & Ytreberg, L.H. 1990. *English for Young Learners*. New York: Longman.

Susilo, H., Chotimah, H, Joharmawan, R., Jumiati, Sari, Y. D., & Sunarjo. 2009. *Lesson Study Berbasis SekolahGuru Konservatif menuju Guru Inovatif.* Malang: Bayumedia Publishing

Spratt, M., Pulverness, A., and Williams, M. 2005. *The Teaching Knowledge Test Course*. Cambridge: Cambridge University Press.

Takahashi, A. & Yoshida, M. 2004. *How Can We Start Lesson Study?: Ideas for establishing lesson study communities.* Teaching Children Mathematics, Volume 10, Number 9. pp. 436 – 443.

Tim BPLP. 2010. *Warta Badan Pengembangan Laboratorium Pendidikan*. Tahun 1 Nomor 1. Malang: BPLP Universitas Negeri Malang.

Yoshida, M. 1999. *Lesson Study: A case study of a Japanese approach to improving instruction through school-based teacher development.* Dissertation, Department of Education, University of Chicago.

Character Education with Multiple Intelligences Learning Strategy to Enhance Interpersonal Intelligence Based on Emotional Intelligence

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Abstract: This research is aimed to know: (1) The difference between multiple intelligences and conventional learning strategy to enhance the interpersonal intelligence of students of psychology; (2) the influence difference between students possessing low and high level on emotional intelligences toward the emotional intelligences of students of psychology; and (3) the relationship between the multiple intelligences learning strategy and the emotional intelligences toward the interpersonal intelligences of students of psychology at Universitas Negeri Malang. The research method in this case uses quantitative experiment. The instruments used in this study are MSCEIT, a test to measure the emotional intelligence, and questionnaire for analyzing the interpersonal intelligence. The data are analyzed using ANOVA (Analysis of Variance) two tails (2 x 2). The research hypothesis test results indicated that: (1) there are significant differences between the effects of multiple intelligences and conventional learning strategy to interpersonal intelligences of students of psychology at UM with a significance 0.05; (2) there is an influence difference between students possessing low and high emotional intelligences toward interpersonal intelligences of students of psychology 2015/2016 UM with a significance 0.05; and (3) there is a relationship between multiple intelligences learning strategy and interpersonal intelligences of students of psychology at UM with a significant number 0.03.

Keywords: character education, multiple intelligences, learning strategy, interpersonal intelligence

Psychology is the study of human behavior, human mental processes and the factors behind them, aiming to create a better life for human. Undergraduate psychology and psychologists known as a "helper" is expected to possess “high inference” skills or interpersonal intelligence, so that they which are referred to as candidate degree in psychology and psychologists, must have interpersonal intelligence in order to be able to utilize psychological services (Woodworth in Albanik, 2009). Interpersonal intelligence is the ability to understand differences in mood, intention, motivation and feeling of others (Armstrong, 2009). This capability is truly beneficial to understand the thoughts, attitudes and behaviors of others, as well as to establish and build relationships in a social environment (Gardner & Checkley, 1997).

Interpersonal intelligence can be developed positively or negatively. It is assumed to be influenced by the education perception about the cultivation of values in the process of transforming (Semiawan, 2010). Hence, the formation of character-oriented education is indispensable in forming, processing and strengthening the positive nature, including achieving the best character quality. In order to be effective, character education must involve three basis approaches, namely: class-based education, school culture and community (environment) (Albert, 2010).

The education process which applies effective learning strategies could affect the success of the educational process. According to Armstrong (1994), multiple intelligences learning strategies can play an important role in the educational process, because it allows teachers to

develop innovative learning strategies which are relatively new in the world of education. An appropriate learning strategy, in fact, will greatly assist the students to achieve maximum competence in respect to their potential to be intelligent. Similarly, McFarlane (2011) mentions that multiple intelligences learning strategy is the most effective learning strategy in the world of education in 21st century, as applied by taking into account the diversity of the class, its unique quality and the character of the students.

Cooperative learning strategy is a learning strategy that is based on schools of constructivism (Slavin, 1994). The main aspects of cooperative learning techniques are positive interdependence, responsibility and communication among members. The purpose of cooperative learning include: (a) results of academic learning where individual success is determined or influenced by the group's success, so it can be inferred that cooperative learning is truly beneficial for high-or-low-level skill students (b) the acceptance of individual differences, and (c) the development of social skills.

This study uses cooperative learning strategies by applying Jigsaw. It aims to: (1) improve the students' sense of responsibility towards their own and other people's; (2) be ready to give and teach the material to the group members and others, (3). Have dependence to one and another, (4) work cooperatively. In addition, Jigsaw is one type of cooperative learning strategy that emphasizes on cooperation and shared responsibility in the group (Aronson, 2011). Hence, the process of implementation could enable to promote the involvement and feeling of empathy of all learners by providing parts for the essential tasks performed by each member in the group. The process of implementation of jigsaw could also possibly encourage the engagement and feeling of empathy of all learners by providing essential tasks to be performed by each member in the group.

The impact arising from the increase of interpersonal intelligence is emotional intelligence. According to Ikiz & Cakar (2009), interpersonal intelligence is highly needed to develop as it would have an impact on the personal skills of which Goleman (2007) referred to as an emotional intelligence. Salovey and Mayer (in Goleman, 2007), reveals the five aspects of emotional intelligence, namely: a) recognizing emotions, the ability to monitor feelings from time to time and the ability to recognize their own feelings, b) managing emotions, the ability to master his/her own feelings that can be expressed appropriately, c) motivating oneself, namely the ability to mobilize and lead to the set goal, d) recognizing other emotions (empathy), and e) the ability to build relationships and develop closeness with others.

The objective of this study is to determine: (1) the different effect of multiple intelligences learning strategy and conventional learning strategy toward the improve-ment of interpersonal intelligence in students of psychology at Universitas Negeri Malang; (2) the different effect of interpersonal intelligence toward psychology students who have low and high emotional intelligence; and (3) the relationship between multiple intelligences learning strategies and emotional intelligence toward the interpersonal intelligence of psychology student of Universitas Negeri Malang.

RESEARCH METHOD

This research is a quantitative research by applying experimental method. It involves students from the Faculty of Psychology, Universitas Negeri Malang academic year 2015-2016. Additionally, the researcher uses random cluster sampling, with details: students of the Faculty of Psychology academic year 2015/2016 "offering A" as an experimental group and "offering B" as a control group. Meanwhile, for "offering C and D", it is assumed as the pilot group research instruments. The instrument in this study includes MSCIT test, which is used to measure the emotional intelligence, and involves open survey for interpersonal intelligence. To

analyze the data gathered from the survey, the researcher uses Analysis of Variance (ANOVA) two lanes (2x2) technique.

Experiment Procedures:

This study is conducted by following the procedures as follows which are in line with the stages (syntax) of Jigsaw, such as: (1) delivering the purpose, explaining, and giving motivation, (2). Dividing subjects into several groups (each group consists of 5 to 6 people, referred to as the origin group, (3) dividing the material to the origin group to study the given materials, (4) specifying a group of experts from each origin group, (4) providing materials for each group of experts to study about them, (5). Asking to cover the same material in the expert groups; (6) asking the expert group to return to the origin group, (7) explaining the material from a team of experts in the origin group.

To fully understand the concept, below are the complete of syntax for the implementation of cooperative learning strategy using Jigsaw in this study:

Table 1

Syntax Cooperative	Experimental Phase using Jigsaw
Phase 1 Presenting goal setting, describing the purpose and Giving motivation to the students	Phase 1. a). Making 11 groups, b).Giving reading material task and multiplying the materials.
Phase 2 Presenting the information	Phase 2. Group discussion at 11 origin groups.
Phase 3 Organizing the student into team learning	Phase 3. Determining four groups of expert, then discussing with their respective 11 origin groups.
Phase 4 Assisting team work and studying	Phase 4 Group of experts back to the origin group to build the same understanding of the 11 materials from the result of discussion of the group.
Phase 5 Testing the material	Phase 5 Discussing the material individually and in group.
Phase 6 Providing recognition	Phase 6 Choosing the best group and giving them rewards.

RESULTS

The result of the given hypothesis showed that:

1. There is a difference between the effect of the application of multiple intelligences learning strategy and conventional learning strategy toward the interpersonal intelligence of psychology students of UM with 0.05 significance point.
2. There is a difference of influence between students who have high and low emotional intelligence toward the interpersonal intelligence of psychology students of UM academic year 2015/2016 with 0.05 significance point.
3. There is a relationship between multiple intelligences learning strategy and the interpersonal intelligence of psychology student of UM with 0.03 significance point.

DISCUSSION

The results of this study indicate that multiple intelligences learning strategy in the application of Jigsaw can be used to enhance interpersonal intelligence of psychology students. According to Slavin (in Jasmine, 2007), cooperative learning strategy actively involves interpersonal intelligence, which is used to train the students in order to be able to work well with others, encouraging a mutual collaboration, cooperation, to compromise and

discuss for reaching an agreement; and generally prepare them to experience the real world of personal relationships.

Cooperative learning strategies, to some extent, can improve learning achievement and social skills; because it triggers the students to work together and learn the materials mostly from one another, so that the planning and cooperation within the group do not only helps them develop socially but it also contributes to their cognitive development (Fini, Zarei & Sardare, 2014). Students with interpersonal intelligence will be able to understand the learning process using interaction process with others effectively (Chatib and Said, 2012). Besides, cooperative learning model puts students become part of a system of cooperation in achieving optimal results (Stahl, 1994). Hence, in more dominant interpersonal student group, it makes the learning activities work with interaction process of cooperation. Such cooperation model like this enables the emergence of a positive perception of what they can do to help others, and can feel the assistance from other group members while studying together in groups. All in all, cooperative learning strategy can improve interpersonal intelligence, because, according to Abraham (2000), apart from improving the outcome of academic learning, it could also enhance the attitude of acceptance of individual differences, because the heterogeneity featured in the selection of members of the groups lead the students to perceive differences of opinion, and could develop social skills in building cooperation and collaboration.

The process of learning using Jigsaw as a type of cooperative learning strategy is utilized to not just for studying or working in a group, but also attempting to learn "the structure of cooperative encouragement and tasks", thus enabling open interaction and interdependent effective relationship among the members of the group.

CONCLUSION

From the results of this study, it can be inferred that the application of multiple intelligences learning strategy with cooperative learning techniques using Jigsaw in the educational process is effective to enhance interpersonal intelligence of student based on emotional intelligence.

REFERENCE

Albanik, H. 2009. Etika Profesi Psikologi Indonesia dan Sistem Hukum Indonesia. http://repository.unpad.ac.id/id/eprint/6634

Amrstrong, T. 2013. Kecerdasan Multiple di Dalam Kelas. Jakarta: Indeks.

Armstrong, T. 1994. Multiple Intelligence in the Classroom. Alexandria, Virginia, US: ASCD.

McFarlane, C. 2011. Assemblage and Critical Urbanism. Taylor and Francis Online 15: 204-224

Semiawan. 2010. Metode Penelitian Kualitatif. Jakarta: Grasindo.

Slavin, R.E. 2009. Cooperative Learning (Teori, Riset, Praktik). Bandung: Nusa Media.

Aronson, E. 1997. The Jigsaw Classroom (2nd ed.). New York: Longman.

Checkley, K. 1997. The First Seven... and the Eighth: A Conversation with Howard Gardner." Educational Leadership 55, no. 1: 8-13.

Ikiz, F.E., & Cakar, F.S. 2009. Perceived Social Support and Self-Esteem in Adolescene. Procedia Social and Behavioral Sciences. 5, 2338-2342.

Goleman, D. 2007. Kecerdasan Emosional. Jakarta: PT. Gramedia Pustaka. Utama.

Jasmine, J. 2007. Panduan Praktis Mengajar Berbasis Multiple Inteligence Teori Multiple Intelligences Howard Gardner. Yogyakarta: Kanisius.

Fini, Z. & Sardare. 2014. The Comparison between the Effect on Jigsaw 2 and Traditional Teaching Methods on Educational Achievement. Academic Journal of Psychological Studies, 3 (1): 22-26.

Chatib, M. & Alamsyah, S. 2012. Sekolah Anan-anak Juara Berbasis Kecerdasan Jamak dan Pendidikan Berkeadilan. Bandung: Mizan Pustaka.

Stahl, R.J. 1994 *Cooperative learning in social studies*: *A Handbook for Teacher*. New York: Addision Wesley Publishing Company, Inc.

Ibrahim, M., dkk. 2000. Pembelajaran Kooperatif. Surabaya: University Press.

The Effects of Geometrical Illustration on Basic Concept Understanding in Real Variable Analysis II

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Abstract: This research examines the effects of geometrical illustration on Basic Concept Understanding (BCU) of students in Real Variable Analysis (RVA) II. This is a quasi-experiment research consists of two classes. They are experiment class and control class. Experiment class is class with geometrical illustration as a supplement material in instructional process, while control class is class without geometrical illustration. Subject researcher was 69 students in Mathematics Study Program Nusa Cendana University joining RVA II class in odd semester 2014/2015. Depend on the result of prior knowledge test, they were grouped by matching in to two classes. There were two subjective types of tests given in this research. They were prior knowledge test and BCU test. Data were analyzed by ANOVA. The result showed that F-value = 45.091 with the probability significance value is 0.00<0.05. It means that there is a significantly different Basic Concept Understanding of RVA between students in geometrical illustration class and students in class without geometrical illustration. Mean value of BCU in geometrical illustration class is 75.88, and that of class without geometrical illustration are 64.73. This result indicated that basic concept understanding of students in geometrical illustration class is better than that of students in class without geometrical illustration. In other word, geometrical illustration gives positive effects on basic concept understanding of students in Real Variable Analysis.

Keywords: geometrical illustration, basic concept understanding, real variable analysis

Real Variable Analysis (RVA) is an abstract mathematics subject learned in Mathematics Education Department. It caused many understanding problems of students year by year. Many students in Mathematics Study Program Nusa Cendana University completed their Undergraduate study for more than 12 semesters because they didn't pass in RVA. Garak (2008) reported that students achievement in RVA II in that department were very low. Students can solve technique mathematics operations but they had difficulties to understand the definitions and theorems in some books or literatures because they are very abstract.

Depend on the curriculum in Mathematics Education Department, the main topics discussed in RVA II are Sequences and Limits. These topics had been discussed in other mathematics subjects such as Calculus, Differential Equation, and Number Theory (Purcell), (Ayres). In Calculus and Differential Equation, the topics focused on technical mathematics approach but in RVA it focused on abstract analysis. Bartle (2010), Purcell (2009), Ziener (2010), Thomas (2008), generally write a very abstract approach of RVA concept. For example: X_n converges to x means that for epsilon positive there exists a natural number K such that for n>=K then X_n-x<epsilon.

Definition above doesn't start by a concrete explanation. It directly performs a very abstract style without a graph or geometrical illustration from the beginning. Because of this, students had difficulties to understand the concept of a RVA. So it needs a graph or geometrical illustration explains the definition and finally can improve the basic concept understanding of students in RVA, need a concrete approach such as graph and geometrical illustration (Garak,

2012). Furtermore Hudoyo (1999), Norainy (2013), Wu Chao, (2006) generally reported that many of mathematics subject can be constructed by real situation such as picture and graph geometrically. By this approach students can understand the concept and apply it to solve the problems.

Graph or geometrical illustration is very similar with basic concept of RVA such as sequences and limit. Thomson (2008), Chukwuyenum (2013), Dorit (2014) generally reported that level of geometry thinking determine level of thinking in other mathematics subjects such as algebra, limits, and trigonometry. Thus, a good understanding of students in geometry is guaranteeing a good understanding of other mathematics subject relationship.

The objective of this research is to examine the effects of geometrical illustration on Basic Concept Understanding (BCU) of students in RVA II. As specially, the research examines the differences of BCU between students in geometrical illustration class and students in class without geometrical illustration. Basic concept understanding is the understanding of students in RVA II depends on Bloom Criteria from C1 to C3.

METHOD

This is a quasi-experiment research consists of two classes. They are experiment class and control class (Ott, 2008). Experiment class is class with geometrical illustration as a supplement material in instructional process, while control class is class without geometrical illustration supplement in instructional process. Subject researcher was 69 students in Mathematics Study Program Nusa Cendana University joining RVA II class in odd semester 2014/2015. Depend on the result of prior knowledge test; they were grouped in to two classes where 35 students were in experiment class and 34 students in control class. The procedure of groping the subjects in to two classes was done by matching (Ott, 2018), Pasaribu, 2008).

There were two types of subjective test given in this research. They were Prior Knowledge test and Basic Concept Understanding test. There were 5 numbers of prior knowledge test hold the validity and reliability criteria. This 5 number were selected from 7 numbers prepared. Other analysis relation to the result of prior knowledge test is normality distribution data and homogeneity variance data from two classes. Test of normality was done by Kolmogorov Smirnov, and homogeneity variances test was done by Levene Statistics. The last two type of analysis are pre-requirement to analyze mean difference of two classes. Mean differences of prior knowledge test from two classes were analyzed by t-test using SPSS-22 (Santoso, 2001).

Furthermore, as prior knowledge test, there exists 5 numbers of basic concept understanding test hold validity and reliability test. They are also selected from 7 numbers prepared. Test of validity, reliability, normality, and homogeneity variance of BCU data were done by the same procedure. Hypothesis test of BCU data was analyzed by ANOVA using SPSS-22 (Santoso, 2001).

RESULT

Data analysis relation to prior knowledge test holds the normality distribution and homogeneity variance. By Kolmogorov Smirnov test, significant value of geometrical illustration class is 2.00 and another class is 0.179. This two coefficient are greater than 0.05. So data prior knowledge test from the two classes are normally distributed. Furthermore, output data showed that the coefficient of Levene Statistics is 0.083 with probability significance=0.775>0.05. This coefficient indicates that there exists a homogeneity variance population under prior knowledge of the two classes.

From independent sample test table (table-2), t-value is 0.912<0.05. This value indicated that there is no significantly differences prior knowledge between students in geometrical illustration class and students in class without geometrical illustration. This is supported by data analysis from group statistics in table-1 showing that mean score of the two classes are relative the same where mean=70.6571 in geometrical illustration class and mean= 70.8824 in class without geometrical illustration.

Data analysis relation to Basic Concept Understanding test holds the normality distribution and homogeneity variance. Coefficient of Levene Statistics is 0.948 with probability significance=0.334>0.05 indicating that there exist a homogeneity variance population under BCU data between the two classes. Descriptive statistics given in table-3, and Output ANOVA given in table-4:

Table-1: Group Statistics of Prior Knowledge

	CLASS	N	Mean	Std. Deviation	Std. Error Mean
Prior_Knw	1.00	35	70.6571	8.30288	1.40344
	2.00	34	70.8824	8.55557	1.46727

Table-2: Independent Samples Test of Prior Knowledge data

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Prior_Knw	Equal variances assumed	.083	.775	-.111	67	.912	-.22521	2.02951	-4.276	3.825
	Equal variances not assumed			-.111	66.76	.912	-.22521	2.03040	-4.278	3.827

Table-3: Statistics Descriptives of BCU

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
GEO ILUSTR	35	75.8857	7.42322	1.25475	73.3357	78.4357	64.00	91.00
WITHOUT GEO ILLUSTR	34	64.7353	6.30684	1.08161	62.5347	66.9359	55.00	79.00
Total	69	70.3913	8.85374	1.06587	68.2644	72.5182	55.00	91.00

Tabel-4: ANOVA

BCU					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2144.274	1	2144.274	45.091	.000
Within Groups	3186.161	67	47.555		
Total	5330.435	68			

From table-4, F-value = 45.091 with probability significance value is 0.00<0.05. It means that H_0 is rejected and conclude that there exist a significantly different Basic Concept Understanding of RVA between students in geometrical illustration class and students in class without geometrical illustration.

From descriptive statistics (table-3), mean value of BCU in geometrical illustration class is 75.8857, and that of class without geometrical illustration is 64.7353. Also the minimum and maximum score of BCU in geometrical illustration class is 64.00 and 91.00 but the minimum and maximum score of BCU in class without geometrical illustration is 55.00 and 79.00. These scores indicated that basic concept understanding of students in geometrical illustration class is better than that of students in class without geometrical illustration. In other word, geometrical illustration gives positive effects on basic concept understanding of students in Real Variable Analysis. It means that the basic concept understanding of students in RVA learned by geometrical illustration is better than that without geometrical illustration. The resulting of this study is consistent with Norainy (2013) and Wu Chao, (2006) which reported that that many part of mathematics can be improved by real situation approach such as picture, and graph geometrically. By this approach students can have ability to understand mathematics concept and apply it to solve the problems.

CONCLUSION

From the result obtained, a number of implications can be forwarded in the interest of applying geometrical illustration as supplement material in Real Variable analysis.

Firstly, The significant differences in Basic Concept Understanding of the geometrical illustration class as compared to the without geometrical illustration class indicated that geometrical illustration give positive effect on Basic Concept Understanding of students. The achievement of students in RVA II learned by geometrical illustration is better than their achievement without geometrical illustration.

REFERENCES

Angelo, T.A. & Cross, P. 1995. *Classroom Assessment Techniques: A Handbook for College Teachers, 2nd edition*

Arends, R.I. 1997. *Classroom Instruction and Management*. New York: McGraw-Hill Companies, Inc.

Bartle, R.G. 2010. *Introduction to Real Analysis*. Ed.3. New York ; John Willey and Sons. Inc.

Clements. 1999. *Geometry and Geometry Thinking*. Teaching Children Mathematics. 5(6): 307,316. Reston: NCTM.

Cho, J.Wu. and Wing K.W. 2006. *Generating And Evaluating Geometry Conjectures With Self Directed Experiment.* Proceedings 30Th Conference of The International Group For The Psichology Of Mathematics Education. Vol 5 PP. 401-408. Novatna

Chukwuyenum, A.N. 2013. *Impact of Critical thinking on Performance in Mathematics among Senior Secondary School Students in Lagos State Asuai Nelson*. IOSR Journal of Research & Method in Education (IOSR-JRME) e-ISSN: 2320–7388,p-ISSN: 2320–737X Volume 3, Issue 5, hal. 18-25

Degeng, N.S. 2013. Ilmu Pembelajaran, Klasifikasi Variabel Untuk Pengembangan Teori dan Penelitian. Bandung. Kalam Hidup.

…… 1998. *Mencari Paradigma Baru Pemecahan Masalah Belajar Dari Keteraturan Menuju Ke Kesemrawutan.* Pidato pengukuhan guru besar IKIP Malang

Dorit, P. & Ruthi, B. 2014. *Geometric Thinking Levels of Pre-and in-Service Mathematics Teachers t Various Stages of Their Education*. Kibutzim Colledge of Education Technology and The Arts Israel. Education Research Journal, Vol 29 No 1 & 2. Hongkong Educational Research Association.

Garak, S.S. & Chandra. 2007. *Pemahaman Siswa Terhadap Koordinat Kutub Ditinjau Dari Kemampuan Awal*. Jurnal MEDIA SAINS, Jurnal Matematika dan Ilmu Pengetahuan Alam, Volume 3, Nomor 1, Juni 2007. Kupang

Garak, S.S. 2008. *Penerapan Pembelajaran Kooperatif Type Jigzaw Untuk Mengurangi Miskonsepsi mahasiswa Matematika FKIP Undana Dalam Analisis Variabel Real* II. MEDIA SAINS, Jurnal Matematika dan Ilmu Pengetahuan Alam, Volume 6, Nomor 1, Juli 2008, hlm. **22-27**. Kupang

Garak, S.S. & Nenohai. 2010. *Pemahaman Siswa SMAN 3 Kupang Terhadap Bidang dan Ruang Ditinjau Dari Kemampuan Dasar dan Keterampilan Matematika*. MEDIA SAINS, Jurnal Matematika dan Ilmu Pengetahuan Alam, Volume 8, Nomor 2. Kupang.

Goldin, G.A. & Shteingold, N. 2002. *System of Representation and the Development of Mathematical Concept*. In Cuoco, Albert A. (Ed). *The Roles of Representation in School Mathematics 2001 Yearbook*. Reston, VA: NCTM

Hair, J.F. Anderson, R.E. 1995. Multivariate Data Analysis With Reading. 4th Edition. New Jersey. Prentice-Hall, Inc.

Halpern, Diane F. 1990. *Thought and knowledge: An introduction to critical thinking (2nd ed.)*.

Hudoyo, H. 1999. *Pengembangan Kurikulum Matematika dan Pelaksanaannya di Depan Kelas*. Surabaya. Usaha Nasional. Hal. 66.

Johnson, R.A. & Richer, D.W. 2002. *Applied Multivariate Statistical Analysis*. Fourth Edition. USA. Prentice Hall. Inc.

Kaput, J.J. 2014. *Representations, Inscriptions, Descriptions and Learning: A Kaleidoscope o f Windows.* Journal of Mathematical Behaviour, 17(2). pp. 256-281

Kuswandi, D. 2005. *Pengejewantahan Konsep-konsep Pendidikan Ki Hajar Dewantara Di Lingkungan Ibu Pawiyatan Taman Siswa Yogyakarta*. Disertasi. Universitas Negeri Malang.

Leigh, L.M & Philip, P. 2011. *From Research To Practice: Basic Mathematics Skill And Success In Statistics*. Journal of Statistics Education. Vol.9 Number 1. Longwood University.

Mega, T.B. 2009. *Kemampuan Deduktif Aksiomatik Mahasiswa Jurusan Pendidikan FPMIPA Penelitian Peningkatan Kualitas Pembelajaran* (RII, BATCH II) PGSM DITJEN DIKTI. Jakarta.

……2009. *Pembelajaran Geometri dan Berpikir Geometri*. Prosiding Seminar Nasional Matematika, Jurusan Matematika ITS, 2 Nop. 2008, ISBN: 979-76152-0-8.

Muhibbin, S. 1999. *Psikologi Pendidikan Suatu Pendekatan Baru*. Bandung. Remaja Rosdakarya. Hal. 23.

Mustaji. 2012. *Pengembangan Kemampuan Berpikir Kritis dan Kreatif dalam Pembelajaran*. http://pasca.tp.ac.id/site/pengembangan-kemampuan-berpikir-kritis-dan-kreatif-dalam-pembelajaran *diakses tanggal 23-12-2014.*

National Council of Teacher of Mathematics. 2000. *Principles and Standards for School Mathematics*. NTCM. Reston. Virginia.

Norainy, I. 2013. *The effect of Geometers Sketchpad on the Performance in Geometry of Malaysian Students achievement and Van Hiele Geometric Thinking*. Malaysian Journal of Mathematics Sciences 1(2) 169-180.

Paul, R. 2008. *Critical Thinking: How to Prepare Students for a Rapidly Changing World*. Foundation for Critical Thinking.

Ott. L.R. 2004. *Introduction To Statistical Methods And Data Analysis*. 5th Edition. Belmont California. Duxbury Pres.

Punaji, S. 2015. *Peran Pembelajaran Dalam Transformasi Pendidikan Di Era Digital*. Prosiding seminar nasional Teknologi pendidikan UM Malang. Hal. 218-227

…….. 2016 *Integrasi Teknologi Pembelajaran Dalam Pengembangan Profesional Guru Secara Berkelanjutan*. Proceeding Seminar Nasional Pendidikan. Kupang. Hal. 1-9.

Prodi Pendidikan Matematika FKIP Undana. 2013. *Data dokumen daftar nilai Program Studi*. Kupang

Purcell ,E.J., dan V. Dale. 2009. *Kalkulus dan Geometri Analitis.* Jilid I, Ed. 5. Erlangga . Jakarta.

Reingeluth, C.M. 1999. *Instructional Design Theories and Model, A New Paradigm of Instructional Theory*. Volum II, New Jersey London.

Russefendi, E.T. 1990. *Pengajaran Matematika Moderen*. Seri 6. Bandung Tarsito

Santoso, S. 2001. *SPSS untuk Statistika Non Parametrik*. Alex Media Computindo. Jakarta

Slavin, R. 1994. *Cooperative Learning, Teori, Riset dan Praktek*, Bandung: Nusa media.

Walle, J.A. 2001. *Geometric Thinking and Geometric Concepts InElementary and Middle School*. Mathematics: Teaching Developmentally, 4th ed. Boston: Allyn and Bacon.

William P. Z. 2010. *Modern Real Analysis*. Indiana University.

Wu, C.J.W., Wing, K. & Cheng. 2006. *Generating ang Evaluating Conjectures With Self Directed Experiment*. Prociding of the 30th Conference of the International Group for the Psychology of Mathematics Education. Prague Czech Republik. Charles University

Total Student Involvement in Learning Science

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Abstract: The under believe that science must be learned through active involvement of students in the construction of meanings of concepts a vast number of studies have been carried out. In line with these studies a number of instructional models have been developed. These models were mainly constructivist in nature in which students were expected to be physically and mentally active in the efforts to develop their own understandings of the studied concepts. Instructional models of this type have been extensively implemented and it was expected that the results were positive in terms of improvement of student learning process and result. However, reports so far published indicated that not all of the models taken into the trials gave satisfactorily results. Among the possible reasons of these poor results was the incomplete involvement of the students in the whole process of learning. The students were only partially involved mainly in the execution phase of learning activities. Effective learning suggests a total involvement of students in the whole process, from being aware of the goals of learning to taking advantage from the knowledge of evaluation processes. This paper suggests a more comprehensive model of learning in which total involvement of students is pursued in the whole process of learning, from the beginning to the end, from the determination of the goals, planning the strategy of learning to the evaluation stages of the learning process.

Keywords: student active learning, concept development, comprehensive learning, comprehensive model of learning.

It has been long since it was first realized that science education suffered from poor results of learning and other weaknesses. Among the most common weaknesses identified up to the current time are poor students' understanding of concepts, the phenomena of misconceptions and low involvement of the students in learning process. Many efforts actually have been undertaken to overcome these. Yet recent studies still reported the persistence of these weaknesses together with other difficulties in the whole business of teaching and learning of science (for instance, Cosztin-Totz, 2011). It seems that the efforts so far attempted have not yet given the expected results. Students' understanding of many essential concepts remains poor and in many cases leads to misconceptions. In chemistry for example, a vast number of misconceptions on various essential concepts like rate of reaction, equilibrium, acid and base concepts, buffer solution ad hydrolysis are still frequently reported, even though various methods from the simple conflict cognitive strategy to the more sophisticated one such as DSLM to overcome this problem have been implemented. Many reported studies indicating these weaknesses can be easily found in the common science education related journals such as Science Education, Journal of Research of Science Teaching (JRST).

The interesting fact which was revealed in the previously mentioned studies was that almost none of those studies have treated the problem in such a way that covered the teaching-learning activities though roughly, from the beginning to the end of the teaching learning activity. Almost all of the study were only partially or incompletely designed that it seems impossible to find a comprehensive explanation about the poor results of learning. It could not

be clearly identified whether the weaknesses emerged from a poor planning, inappropriate implementation or merely weaknesses in the evaluation phase.

A comprehensive model of learning will involve students from the planning phase, such as in identifying the goals of learning activity or learning outcomes. Students will also involve in the implementation phase in the form of monitoring their learning activities and at the end the students will also be involved in designing the evaluation and in analyzing the results of the evaluation.

THEORETICAL CONSIDERATIONS

A number of factors influence the process and determine the results of learning. Traditionally the factors can be divided into three categories, i.e. input, process and product factors. Studies related to the influences of those factors can easily be found in various journals and other types of publication. However it is not easy to find a study which covers all the three categories of factors although it is quite logic and widely known that each factor and the combination of those factors will have a strong impact on the process and results of learning. In this paper the expectedly positive impacts of student awareness of goals of learning or learning outcomes, student knowledge of learning strategy to use in the process of learning and student proper perception of evaluation will be combined in a model of learning. This is an effort to maximize the positive impacts of the factors which so far have been studied extensively though partially and have demonstrated advantageous influences to student learning.

Studies on the impact of student awareness of learning goals can be found in various reports. In general it was reported that student knowledge of learning outcomes gave the students the information of what they have to do and how should they do it which in turn gave the students the opportunity to push themselves to try better as they had already known the points of achievement to reach, and the strategy to be used to achieve the instructional goals. At the same time the students also get the opportunity to weight or to measure their potential to accomplish the task. If they get the positive picture of this is the form of believe that they are able to accomplish the task—a positive motivation will stongly emerge from them. It is line with the concept of the zone of proximal development (ZPD) in which the success of student learning, among other factors, is supported by the learners' believe that they able to reach the defined goals of learning. Like for instance, Grant & Dweck (2003) argued that active learning goals predicted active coping, sustained motivation, and higher achievement in the face of a challenge. This is in line with metacognition believed. Belenky & Nokes (2009), referring to Schwartz & Martin, (2009) indicated that mastery orientation must be present for students to transfer from a direct instruction activity. Recent works have shown that invention activities can promote flexible learning, leading to better transfer after instruction. When students know the goals of learning they have to achieve they will be able to plan their learning more properly.

Leaving the steps of planning phase the teaching-learning bussiness will get into the implementation step. Knowing the goals of learning to achieve and the way they have to go to achieve the goals students will be able to develop a productive and effective learning strategy and to monitor its implementation. It is a part metacognitive activity in which it is believed that active participation of students in managing their learning is an important factor which will take the students to learning success.

Studies in this area are enormous. The results generally supported believe of positive impact on learning process and outcomes. The more intensive student involvement in the learning process the better were the results of learning, measured in various scales such as student process skill ability, critical thinking ability and of course, students' conceptual

understanding. It is argued that students' skills in managing their own learning make the process of learning in their full control. The students will be able to manage their learning according to their own psychological needs and condition such as managing the sequence of learning steps, the speed of learning and the fulfillment of the needed information essential to the construction of concept understanding.

Many studies in the area of metacognition produced similar results. The more sophisticated the students' mastery of metacognitive skills the better were the results of their learning. Arguments supporting the relationship between metacognitive skills and learning results are wide spread. In general the positive impacts of metacognitive skills on learning outcomes was said to have emerged from the control of the students to the ways how learning activities should be managed. Having control on the ways of learning the students could find the most appropriate and effective lane of their own learning. Caliscan & Sunbul (2011) found that learning strategies instruction increased awareness of strategy and metacognitive knowledge and it was effective in using metacognitive skills. It was also found that using metacognitive skills increased achievement. Another study carried out by AL-Baddareen, Ghaith, and Akour (2015) gave evidence those two predictors, mastery goals and metacognition had a significant joint effect on academic motivation.

Knowledge about how assessment or evaluation of learning process and result will be done is also believed to have positive influence on student learning. By knowing this the students will be more prepared to face the evaluation steps and will behave accordingly. The impact will be better if information is also given to the students about the wider and nobler purposes of assessment. Assessment is not only meant for measuring student achievement-more specifically cognitive achievement-but also for improving the quality of learning process and also for providing the students the weaknesses they have so that they are able to develop a plan for improvement. This is in line with the more comprehensive view on assessment in which assessment is not just perceived as 'assessment of learning, but also 'for learning' and 'as learning'. Guskey (2003), based on his study said that teachers who develop useful assessments, provide corrective instruction, and give students second chances to demonstrate success can improve their instruction and help students learn So, providing the students with information about assessment will give three advantages: preparing the students better, giving the students information about their weaknesses and providing the teacher with information of the quality of his/her instructional management. Hanover Research (2014) claimed that studies demonstrate that statement of learning objectives and assessment criteria improve students' self-assessment abilities and, as a result, improve learning outcomes.

THE MODEL

The model consists of three parts representing three phases of learning activity. It must be noted however that all the three phases are actually unpalatable from each other. In the implementation of the model the students will go up and down from one phase to the other as all along the learning activity the students should every time check whether the implementation of the planned learning steps are still in line with the initial plan. The same actions will also be carried out at any phase of learning by referring to two other phases to check whether all the activities are still in good harmony. So it is expected for instance while the students are in the implementation phase they ask questions such as '*Does what I'm doing comply with the purposes of learning formulated beforehand?'* or '*Doe this results of my calculations truly answer the problems set at the beginning of learning activity?*, and so on. Using a diagram the model can be represented as follows.

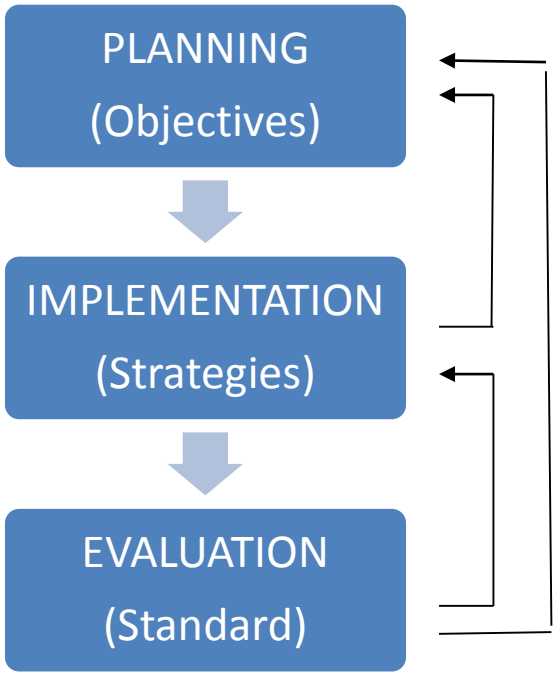

Diagram 1: Total Student Involvement Model of Learning

At a glance the proposed model seems to resemble metacognitive model of learning. It's not at all wrong. However, there is a significant difference with respect to the repetation of benchmarking of each phase to another. In the proposed model benchmarkings are made with two other phases as standards. This reflects the idealized integration of the three phases as parts of an impartial model. By doing this both teacher and students will be able to keep the learning process on track to reach the goals as at any time they have the opportunity to check whether the progress of learning is still as planned or has diverted to other direction or even halted.

TEACHER-STUDENT READINESS

The most significant aspect of learning which will be highly promoted by the model is readiness of both teacher and students to play their roles in the teaching learning process. By always keeping in mind that at all the three phases of learning the students have to undertake teachers should at any time be ready to provide assistance to their students. This wll enable the teachers to analyze the really needed kinds or forms of assistance so that the teachers' actions will be most effective. On the other hand, from the point of view of students learning, the assistance given by the teacher will also be as effective as it is expected as the given assistance is really shoot the trouble the students have at a certain phase of learning. Scaffolding is the teacher's role which should be appropriately implemented in this phase.

In the implementation phase, as the implementation strategy has been properly planned, it will make the learning process of the students really on the right track, although the possibility to take alternative ways is kept open. The strategy should be kept as flexible as possible so that there is still 'emergency exit' when the planned strategy hit a deadlock. The flexibility of the strategy keeps the students and teacher in a high involvement situation mentally, and in such a situation efforts to find a solution can be negotiated between the teacher and the students. Total involvement model of teaching-learning process demonstrates its real characters in this situation.

The evaluation phase will as well promote students active involvement in the process of learning and it will promote a type of assessment which tends to be 'assessment as learning' or at least 'assessment for learning'. In this type of evaluation assessment is not merely designed to produce marks for the students but the assessment is designed to give opportunity to the students to assess whether their learning has run as it is expected. Questions such as whether the students have actively (mentally) involved in the development of meanings of the concepts studied and whether they have developed the correct meaning are common in such a type of evaluation. Having involved in appraisal actions the students will then be able to plan better, implement better and assess their learning more properly in future learning for further improvement of their learning.

SUMMARY

1. The model is student active-constructivist in nature.
2. The model provides an opportunity for the students to plan, control and evaluate their own learning.
3. The model invites students to be mentally active through the whole process of learning.
4. With the implementation of the model it can be expected that the quality of student learning will be improving from time to time.
5. It is an Improvement of related models so far developed.

REFFERENCES

Al-Baddareen, G, Ghait, S & Akour, M. 2015. Saelf-Efficacy, Achievement Goals and Metacognition as Predicators of Academic Motivation. *Procedia 191,* (2), 2068-2073.

Belenky, D.M. & Nokes**,** T.J. 2009. Examining the Roles of Manipulative and Metacognition on Engagement, Learning and Transfer. *Journal of Problem Solving 2, (2).*

Caliscan, M. & Sunbul, A.M. 2011. *The Effect of Learning Strategy Inovatioon on Metacognition. Educational Theory and Practice 11*, (1) 148-153

Cosztin-Totz, B. 2011. *The Effect of Experimental Model of Teaching Science on Scientific Concept Development)*. Debrecen: University of Debrecen (Doctoral Thesis).

Grant, H. & Dweck, C.S. 2003. *Clarifying Achievent Goals and Their Impacts*. New. York: Columbia University.

Guskey, X. 2003. Effective Grading Practices. *Educatonal Leadership 69,* (11).

Schwartz, D.L. & Martin, T. 2009. The Hidden Efficiency of Encouraging Original Student Production in Statistics Instruction. *Cognition & Instruction, 22* (2) 129-184.

The Development Crafts Art Media of Recycle Materials for Increasing Entrepreneurial Values on Senior High School Students

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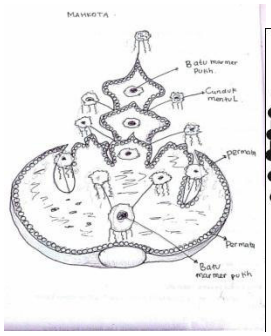
Abstract: The purpose of this study is to develop the learning media that can show the crafts art appreciation which can help the student to understand the materials. The development of this study produces the learning media such as interactive multimedia that can combine among texts, picture, and video. So the appreciation of crafts art is descriptive, that consist of the activity of design media, production, validation of the trial product and product marketing /exhibition product. The materials from nature such as stone, wood, bamboo, lands, rock, and the kind of metals and so forth can be processed to be various types of crafts or applied art. The grouping of applied art (the result of craft art) based on the material which is used. Like as bamboo, wood, metals, skins, rocks, rattan, lands, textile, waste materials and etc. Applied art technique is the way through mastery or skills of someone in making art such as disposable items or decorative objects which can useful for daily life practically with adjust the materials that will be used. Many kinds of technique which is used in making applied art. The materials of applied art appreciation is a study of art and culture that study about the definition of crafts art, technique, materials and the others craft art in this country, so that in the explanation is not enough if only use oral. The condition cause the difficulty the student in understanding of the materials, especially the kinds of craft art from recycles materials. That is caused by the difficulty of teacher to show directly the kinds of those arts in the class. So it is needed a way to solve that problem that is utilizing the learning media.

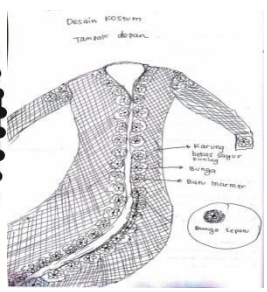
Keywords: the development of learning media, craft art of recycles materials, Entrepreneurial.

The development of learning media, the direction, is on the design picture of carnival costumes which is unique, with utilizing the waste materials are on the environment. Follow is the example picture of the costumes design:



Crown

Necklace



Becoming the waste materials as beautiful handicraft is one of solution to decrease the litter. To solving the litter problem, fully, it is needed the alternative management. Land fill is

not proper alternative, because Landfill is not sustainable and causing the environment problem. Even those alternatives must be able to solve the entire problem in litter with recycling all of the waste materials become economic community or go to nature. So that can decrease the pressures of natural resources. To reach it, there are three assumptions on the rubbish management which must be changed into new three principles. Rather than assuming that the community will produce litter continuously, minimalize the litter must be become main priority.

The litter which is thrown must be chosen, so each part can be composted or recycled optimally. Rather than thrown into rubbish disposal that is mixed poorly such as now. And the industrials must redesign their products to ease the process of recycle product. This principle is applied for all of kinds and flow trash.

Clean Production is one of approaches to redesigning that purpose to find the way to decrease products byproduct which is dangerous, decreasing the pollutions overall, and creating the trash products that is safe in the ecological cycle. The principle of Clean Production is the principles that also can be implemented in the daily activity such as implants of 4R principles those are:

1. Reduce; as you as much as possible to do minimalize the materials which is applied by us. As much a possible we use materials, trash that is produced.
2. Reuse; as much as possible choose the materials which can be reused. Avoid the materials that are disposable (just once using). This can extend the time to usage the materials before it become trash.
3. Recycle; as much as possible the unusual things can be recycled. Not all of the materials can be recycled, but now is much non-formal industrial and home industry that utilizes the trash.
4. Replace; check the materials that we use daily. Change the materials that only use once with the durable materials. Also, check in order to we only use the materials more environmentally friendly, for the example change plastics bags into basket if shopping and do not use Styrofoam because the both of materials cannot be degraded naturally. (Agustin, http://gbioscience05. wordpress.com) (Bambang, 2012: 45)

In this study, the researcher try to make creation to utilize trash in the environment of living place become carnival costume that is unique. Except that, the handicraft such as the carnival costume can be used when there is an agenda like independent day of Indonesia in 17th august or the carnival in the cleaning of village.

The sub-sector is industrial of creativity in Indonesia based on mapping the creative industries have been done by Departemen Perdagangan Republik Indonesia (Ministry of Trade, (2015) are:

1. Advertising; the creative activity that relates to advertising services (one direction communication with certain medium), that covers the creation process, production and distribution from advertisement that is produced, for the example: marketing research, planning communication of advertisement, outdoor advertisement, advertisement material production, promotion, the campaign of public relation, the display of advertisement in print media (magazine, newspaper) and electronic media (television and radio), installation of assorted poster and picture, spread of leaflets, pamphlet, brochure and look like advertisement, distribution and delivery advertising materials or samples, and rental of column in the advertisement. KBLI code (Baku Lapangan Usaha) 5 digit; 73100
2. Architecture: creative activity that relates to services of building design, planning of construction costs, conservation of heritage building, supervision of construction from macro level (Town planning, urban design, landscape architecture) to micro level (the detail of construction, for the example: park architecture, interior design). KBLI code (Klasifikasi Baku Lapangan Usaha) 5 digit; 73100

3. Art goods market: creative activity that relates to trade of original goods, unique and rare and have art aesthetics value which is high through auction, gallery, store, super market, and internet, example: musical instrument, printing, craft, automobile, film, art and painting.
4. Art: creative activity that relates to the creation, production and distribution of product which is made by craftsmen that begin from first design till finishing process of products, those are art good that are made from: precious stone, natural fibers or artificial, skin, rattan, bamboo, fabric, marble, lands and chalk. The product of art in general is only produced in the relative small quantity.
5. Design: creative activity that relates to creation of graphic design, interior design, product design, industry design, consultation of company identity and marketing research services with packaging production and packaging services.
6. Fashion: creative activity that relates to the creation of clothes design, footwear design, and another accessories mode design, clothes mode production and the accessories, consulting product line fashion and distributing fashion product.
7. Video, film and photography: creative activity that relates to the creation in the production of video, film and photography services, and distributing record of video and film. Include in the writing of scripts, dubbing film, cinematography, theater, exhibition of film.
8. Interactive game: creative activity that relates to the creation, production, and distribution of computer game and videos that are entertainment, litheness, and education. Sub-sector of interactive game is not dominated as jus entertainment but also as learning media or education.
9. Music: creative activity that relates to the creation/composition, performance, reproduction, and distribution of recording sounds.
10. Art performance: creative activity that relates to effort the content development, performance production (ex: ballet performance, traditional dance, contemporary dance, drama, traditional music, theatre, opera, including ethnic music tour), design and making fashion show, stage and setting lighting.
11. Publishing and printing: creative activity that relates to the writing content and publishing book, journal, newspaper, magazine, tabloid, and digital content and news agency activity and news searcher. This sub-sector is also covering the publishing stamp, stamp, paper money, blank check, gyro, letter contributed, obligation of letter stock, and other securities, passport, flight ticket, and other special edition. Also covering the photos edition, engraving and post card, form, poster, reproduction, printed painting, and other printed goods, included of micro film recording.
12. Services computer and software: : the creative activity that relates to development of information technology include of service computer, data management, developing database, developing software, designing of software and hardware infrastructure, and portal design also the maintenance.
13. Television and Radio: the creative activity that relates to enterprises creation, production and packaging television (such as games, quiz, reality show, infotainment, and so forth), broadcasting, and content transmission of television and radio, include of station relay activity (back transmitter) radio and television broadcasts.
14. Risearch and development: the creative activity that relates to enterprises innovative which is offering the discovery science, technology, implementation of science. That knowledge is to repair the product and new creation products, process, materials, tools, method, and technology. It can fulfill the market necessary; include of human such as research and development of language, literature, and art; and business consultation services and management.

REFFERENCES

Kartika, S.D. 2016. *Kreasi Artistik*. Karanganyar: LPKBN UNS.

Subiyantoro, S. 2011. *Antropologi Seni Rupa.* Surakarta: LPP UNS & UNS Press.

Wintoko, B. 2001. *Bank Sampah.* Jogyakarta: Pustaka Baru Press.

Effective approaches to connect children with nature (PDF, 2233K). (Onlin) *www.doc.govt.nz /.../effective-approaches-to-con..*

Arts in education and creativity: a literature review - Creativity, Culture *www.creativityculture-education.org/.../arts-in-edu..*

Art Education at the intersection of creativity: Integrating-Unesco (Online), *www. unesco.org/. artseducation/pdf/fpcathysmil*

Education and/as Art: A Found Poetry Suite. *files.eric.ed.gov/fulltext/ EJ971 444. Pdf*

Teaching for Artistic Behavior: Choice−Based Art - Brown University. (Online) *https:// www. brown.edu/.../education...education.*

Arts Education for the Development of the Whole Child. (Online), *www.etfo.ca/.. ./Arts%20 Education*

Parenting Digital Natives: Cognitive, Emotional, and Social Developmental Challenges

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Abstract: The use of Information and Communication Technologies (ICT) such as Internet and Gadgets has expanded and are impacting digital natives' development. Even though ICT has brought great benefits to current society, there are also indications that the manner in which children and adolescent use of ICT has undermined their development in some aspects. This paper reports on literature review on how ICT use in this digital era, has the potential to negatively impact the digital natives cognition, emotion, and social development. Education can be a means of helping the digital natives use technology in a positive way, minimizing its negative potential. Parents must be proactive in guiding and nurturing digital natives to use ICT wisely and to use technology in a way that their development is supported and not seriously disturbed by digital devices.

Keywords: digital natives; ict (information and communications technology); cognition, emotion, social interaction.

The increasingly rapid development of scientific knowledge and technology has resulted in sophisticated technological products, including various news and communication devices. Prior studies have indicated that the use of Information and Communication Technologies (ICT) such as Internet and Gadgets has expanded and are impacting digital natives (Hatch, 2011; Moore & Grisham, 2015). Our children and students today are all "native speakers" of the digital language of the computers, video games and the Internet (Prensky, 2001). Gadgets such as cell phones, smart-phones, computers, tablets, laptops, and iPads with increasingly complex specifications continue to be produced. This current era of Big Data has clearly caused the increasingly widespread ICT usage in society. This development of media and diverse electronic devices is becoming more accepted and extensively used as an educational device as well, not only by students but also by parents and teachers. Due to its many advantages and accessibility, ICT possess great appeal for parents, students, and students everywhere.

Many people admit that the progress of technology, including the increased sophistication of the gadgets we use have positive effects and aids in the ease of communication and learning (Rowan, 2013). Research shows that the routine use of various kinds of social media advantages children and teens as it increases and enriches communication, social connection, and even their technical skills (Hatch, 2011; Moore & Grisham, 2015). Never in the history of humankind has there been such uninhibited access to knowledge and information. With a tap or touch on a tablet or smartphone, a student can retrieve information and answers without having to search within dusty It does not come as a surprise, therefore, that ICT have not only become a ubiquitous feature in the adult world, but also in the children and adolescent world. Furthermore, in this digital era, many parents themselves have intentionally introduced gadgets to their children as early as possible. This is observed in the number of parents who facilitate gadget use for their toddlers. For many parents, educational applications that can be found across various technological platforms are deemed helpful in enhancing child intelligence

however, many parents ironically do not realize that the habit of playing with gadget can cause addiction that negatively impact their children (Wanajak, 2011). Excessive interaction with gadgets is feared to impair the development of children and teenagers. If not watched and limited, gadget usage can harm the physical, cognitive, social, and emotional development of these age demographics.

Television, computers, and video games are among the most widely used media activities, which engage children and adolescents for increasing amounts of time. There is a sharp increase in both the time spent and the numbers of children who use media over the past 10 years (O'Connor, 2011). Around five years ago Guernsey—the author of Into the Minds of Babes: How Screen Time Affects Children From Birth to Age Five stated about the negative impact of television, that parents are distracted by TV the same way preschoolers are. Young children learn much more from face-to-face interaction than a screen. They see someone who's able to do that as a true learning partner. They don't have any way of knowing whether that character or face on screen really understands them (Younts, 2011).

A growing number of researchers are also warning about the dangers of watching TV when very young children are nearby. Recent findings suggest that even casual exposure to TV can harm their development and undermine parent-child interactions. We have heard of the hazards of secondhand smoke. Now here's another worry: secondhand TV. A new study finds that casual TV exposure may hurt child development." (Levine, 2002; Toppo, 2011; Younts, 2011).

Presently, what constitutes a 'threat' is not just TV but the widespread use of electronics and digital technology among children even as young as two years. Infants to school age children are avid digital consumers who often watch TV, use the computer, play video games, and operate smartphones and tablets. From the moment they can reach and grasp objects at hand, toddlers begin playing with their parents' smartphones or tablets. We can find more that 40,000 YouTube video uploads regarding babies and toddlers playing with those gadgets (Kim, 2013).

This phenomenon and its real impact are elucidated further by the following research finding:

> It's amazing how a 2-year old can be handed a gadget and just know how to use it, similar to how a kid knows how to use a feeding bottle. Action figures, puzzles and blocks are no longer the standard toys among today's children. Research by child-education specialists at the Michael Cohen Group revealed that touch screens have taken over all other forms of playful delight for kids. Sixty percent of parents with kids under the age of 12 reported that their child plays on a portable screen often, while 38 percent apparently play very often. It's interesting to note that 36 percent of these kids have their own device. (League, 2015).

Furthermore, in the past five years, the number of adolescents and teenagers who use social media sites have increased dramatically. According to the recent polls, 22% of teenagers log on to their favorite social media site more that ten times a day, and more than half log on more than one a day. 75% of teenagers now own personal cell phones, and 25% use these phones for social media, 54% for texting, and 24% for instant messaging. As such, a large part of the social and emotional development of this current generation is happening while they are active on the internet or on their phones. (O'Keeffe & Clarke-Pearson, 2011).

There is a sharp increase in both the time spent and the numbers of children who use media over the past 10 years. Parents, educators, and health care providers must understand the effects that media has on childhood development and learn ways to moderate negative effects and maximize positive effects (O'Connor, 2011). Numerous statistics and literature regarding this topic have been produced and published widely, and the conversation continues. The issue

remains, however, that parents still remain largely unwatchful of their children's gadget use. In the next few years, as the trend suggests, more and more toddlers will use gadgets. As the above has shown, unlimited ICT use among children can cause addiction and impair physical, cognitive,
emotional, and social development and unsurprisingly so (O'Connor, 2011). The lack of face to face or direct interaction with parents or other persons is also set to negatively impact the emotional and social intelligence of this future generation. This should be of utmost concern for parents and teachers.

THE IMPACT OF GADGET USE ON CHILD PHYSICAL DEVELOPMENT

Unlimited gadget usage by children not only can cause addiction excessive interaction with gadgets may diminish the range of physical and motoric stimulation, in addition to harming the cognitive, social, and emotional development of children (Rowan, 2013). Twenty years ago, it is common to find children playing outdoors for large chunks of the day riding bicycles, playing ball or other sports, and building forts. Mastering imaginative games, children in the past created games that did not need expensive tools or equipment nor parental supervision. In their incessant movement and exploration, their sensory world is one that is simply at hand and based upon nature.

Ironically, today many children under the age of twelve spend more time in front of a monitor or screen comparative to outdoor play. The lack and limitation of physical movement will result in slowed or inadequate development of a child's motoric skill. Presently, it is not only video games that cause children to be sedentary, but also television, smartphones and smartphone applications, computers, tablets, handheld gaming devices (e.g. GameBoys and PSPs), etc. Children become active consumers of these technologies, as many commercials and advertisements of electronic products are marketed towards children as the target audience. Parents are likely to have an easier time keeping their children sitting still by giving them a gadget to play with, while in truth for optimal development it is necessary to let children actively roam and explore their environment, natural or otherwise.

Not only that, according researchers from Boston College, light emitted by laptops and smartphones late at night deprives children of critical night sleep hours. Research done by the Kaiser Foundation found that 60% of parents do not monitor the gadget use of their children, and 75% of children are permitted to use technology in their bedrooms. This has caused 75% of children to be sleep deprived, including many between the ages of nine and ten a crucial time where sleep deprivation not only impacts child development but also their performance at school (Rowan, 2009; Kim, 2013).
which are described below:

a. Eye Health

Insofar as parents spend more time using digital media, children will follow suit, and insofar as adults experience side effects due to overuse of digital media, children too will suffer similarly. Some of these side effects include digital eye strain (reddening, dryness, or irritation of the eye; blurry vision; eye fatigue) (Hessel, 2016). Overexposure of smartphone use at a young age can induce weak and poor vision among children; for example, nearsightedness (Healy in Costa, 1999; Kim, 2013).

One growing source of potential concern is the kind of light most digital devices emit. We all know about the invisible dangers of ultraviolet or UV light, but fewer people are aware of the potential risks of high energy light that we can see: blue light. In this case, according to Hessel,light on the blue end of the visual light spectrum contains more energy than warm colors like oranges and red, and is known as a high energy visual light (HEV). Blue light is

everywhere, including in sunlight. However, digital screens and fluorescent and LED office lighting have drastically increased our exposure. It's not all bad - blue light's abundance in daylight boost alertness. But when we're bathing ourselves constantly, the sustained exposure may well add up, preventing our bodies from settling into healthy sleep…. Most worryingly, recent studies suggest HEV light can contribute to retinal damage and macular degeneration - an irreversible loss of vision. (2016).

b. Physical Growth and Obesity

Use of digital media may intrude upon the playtime and physical activity of children. It has been reported that children who spend more than four hours a day watching TV seem to experience a greater incidence of being overweight compared to children who watch less than two hours a day. Children who often use gadgets and lack physical activity tend towards obesity. Excessive digital media use by children may limit the physical challenges and activities that their bodies need in order to reach optimal sensory and motoric development (Rowan, 2009; Shields & Behrman, 2000; Hatch, 2011; Kim, 2013; Relos, 2014).

Other physical ailments that children experience as a result of excessive gadget use also include postural and orthopedic discomfort, such as: back, neck, and shoulder pain; carpal tunnel syndrome, some (controversial) effects of electromagnetic radiation as emitted by electronic devices, and even though rareseizures provoked by various visuals (Healy in Costa, 1999:137; Shields & Behrman, 2000:7).

THE IMPACT OF GADGET USE ON CHILD COGNITIVE DEVELOPMENT

When speaking about the cognitive development of children, it is clear that this is not to be separated from brain development. Cognition is a general term encompassing mental processes such as attention, perception, comprehension, memory, and problems solving. Cognitive development refers to changes in cognition over time (Johnson, 2006). The mind and body are integrally connected (Leaf, 2008). It is also worth noting that, in fact, the bodily movements or physical activities of children are tightly connected with the development of cognitive brain functions. John Ratey, a doctor at Harvard, explained in his book, Spark: The Revolutionary New Science of Exercise and the Brain, that the advantages of playing are not limited to being physically fit and socially comfortable. Even 10 minutes of physical activity changes the way the brain functions. In addition, exercise normally makes people feel better because it "builds and conditions the brain" (Levine, 2002; League, 2015).

Children must receive the chance to build cognitive pathways in their brains by partaking in activities that require them to move. The use of digital media by children, again, is to be observed and limited—in fact, it is arguable it is best that toddlers not be habituated to gadgets at all. Some experts concerned with child development explained that childhood is a particularly crucial time for the brain because neural sculpting is at its lifetime high. Many of our abilities, tendencies, talents, and reactions are hardwired in childhood and set a mental stage for adulthood (Leaf, 2008:95). Even before kids can utter their first words, kids' brains are tripling in size a lot of learning happens before the age of five. Researchers at the University of Washington reveal that modern gadgets are not necessary in child development—children can thrive on being talked and read to. In fact, kids need one-on-one time with their parents, not gadgets. Additionally, overexposure to gadgets has been linked to attention deficit, cognitive delays and impaired learning (League, 2015).

Recent neuroimaging investigations have suggested associations between these internetrelated cognitive impacts and structural changes in the brain. Young children who will

grow up in a high-tech world need a low-tech, high-touch environment. Early childhood is a special time for brain development of special systems that will underlie many different kinds of learning; even executive centers have already begun to develop by age two. The preschool brain's main job is to learn the principles by which the real world operates and to organize and integrate sensory information with body movement, "touch", and "feel" (Katz in Healy, 1999:328).

Research has been conducted on how television, video games, and other pop culture components (including gadgets) have diminished the ability of children to concentrate upon, absorb, and analyze information. According to an article in Time magazine, eight to eighteen year olds spend seven hours and thirty- eight minutes a day using entertainment media. As they have become so absorbed into it, that social and entertainment media become a constant distraction. These distractions affect the way children's developing brains absorb new information, and can lead to continuous partial attention (CPA), (Hatch, 2011). The Internet, a relatively recent form of media, has also grown rapidly in use and applications. Furthermore, Johnson explain in the following:

> Given such early and extensive use, the impact of media on children is of considerable concern. All trends indicate that the number of children accessing the Internet as well as the amount of time spent online is steadily increasing (Statistics Canada, 2004). Given such pervasive and extensive use in children and youth, from a cognitive-developmental perspective, the Internet is a cultural tool that influences cognitive processes and an environmental stimulus that contributes to the formation of specific cognitive architecture (2006).

Neuropsychology research and the practical analysis of education has shown that the physical development of the brains of children is shaped by experience. The brain is now generally understood to be highly plastic, continually adapting to the input it receives, it is possible that the brains of those who interact with technology frequently will be restructured by that interaction. (Healy, 1990; Prensky, 2009). Every experience through various modes of learning changes the child brain. If an experience changes drastically, the brain will respond in kind. The physical structure of the brain emerges and is shaped by the way the brain is used. This fact is tied to plasticity a crucial facility of the brain that governs various brain capabilities, including the ability to adapt to changing environments and memory or information storage in the learning process (Hoiland & Chudler, 2016). It is due to this plasticity that children are able to learn faster than adults, as is evidenced among other things in skills such as language mastery, mastery of a musical instrument, ball manipulation (e.g. juggling a soccer ball). Brain plasticity also allows children to heal from brain injury much faster than adults (Frostig, 2012).

The discovery and development of new technology in the lives of children today have the potential to expose their brains to disadvantageous risks. The lack of environmental stimulation is inadequate for early brain development and the erosion of quality interpersonal interaction for children may have long lasting effects. Many parents have failed to realize that if society hopes for children to master skills related to academic and intellectual content, that parents must help prepare the framework of thought within their children appropriately (Healy, 1999; Levine, 2002; Prensky, 2009).

THE IMPACT OF GADGET USE ON CHILD EMOTIONAL DEVELOPMENT

In her book Opening Your Child's Nine Learning Windows, Cheri Fuller locates emotion as the first learning "window." Fuller explains that the brain of a child who feels secure, loved, and happy will channel all focus to learning and growth as opposed to fear and worry (Fuller,

1999). Attunement is one of the important fundamentals in child emotional development. The following are explanations by education experts that more completely describes attunement:

> All the interaction between mother and baby—the loving vocalization, the play and eye contact, a mother responding to and mimicking her baby's babbling, the gentle physical touching plays an important role in emotional nurturing and growth. In just those brief moments of interaction, neurons in a child brain were connected with other neurons, and existing connections between cells were strengthened, adding to the vital circuitry of emotional wiring. (Healy in Fuller, 1999:21).

Research has shown that if children don't get enough loving touch and eye contact during the first three years of life when their brains are organizing for independence, their emotional development will be stunted. This restricts a child's emotional horizon, making him or her lack empathy and more prone to anxiety and impulsive, aggressive behavior, and depression. A good deal of evidence suggests that media contributed to children's fear and anxiety especially in younger children (Leaf, 2008; O'Connor, 2011).

Attunement is the strongest emotional stimulation needed for brain development, which involves parents or other adults responding to a child's emotional state appropriately. Young children require between three and four hours a day of physical activity and human 'touch.' According to Dr. Ashley Montagu, infants that are deprived of this amount of human touch and play exhibit more agitation and anxiety, and may become depressed in early childhood (Hatch, 2011). This drives emotional growth. If, however, expressions of like or pain from the baby is unacknowledged and ignored by their parents, then the child's emotional and mental development might be deterred or even damaged. Every exchange between parent and child in the growth process shapes the core of the emotional expressions and capability of said child (Fuller, 1999).

The prime time for emotional 'wiring' for a child is found in the period between birth and age ten. Within that time, the brain readies circuits that are needed to experience and control emotions that range from joy and sadness to jealousy, empathy, and anxiety. Parents must realize that attunement is of utmost importance in child rearing, and for that reason infants and children are better off not playing with gadgets. If face-to-face interaction with others in real time is crucial for a child's emotional development, and especially if attunement is not fulfilled, then there will be grave consequences for a child's empathy, moral and social growth.

For example:

> The consequences of failing to learn the basics of emotional intelligence are increasingly dire. Evidence suggests, for example, that girls who fails to learn to distinguish between feelings like anxiety and hunger are most at risk for eating disorders, while those who has trouble controlling impulses in the early years are more likely to get pregnant by the end of their teen years. For boys, impulsivity the early years may augur a heightened risk of delinquency or violence. And all children, an inability to handle anxiety and depression increases the likelihood of later abusing drugs or alcohol (Gottman, 1997:14).

THE IMPACT OF GADGET USE ON CHILD SOCIAL DEVELOPMENT

Much as a baby's brain is wired for language, music, and logic, it is also wired for emotion and feeling. In fact, several of the most important early circuits that is formed by the brain have to do with emotional control, and this emotional wiring influences how children will develop in mental, social, and moral dimensions. The emotional development of a child influences how they will connect with others, how well they can control their emotions, how well they can pay attention in classes, and many other skills. Allowing children to play with tablets or other such gadgets in fact carries a psychological danger that is quite significant. Researchers warned that

using a tablet or smartphone to divert a child's attention could be detrimental to "their socialemotional development" (Walters, 2013). If emotional aspects are not developed well, it will have an impact upon a child's empathy, emotional and social intelligence.

The emotional development of children is profoundly connected to social development. While it is okay to allow children to use technology for a limited amount of time, when it begins to become a substitution for personal interaction, issues begin to arise. In this case, according to Shields & Behrman,

> excessive computer use may also affect children's social development. By the age of about seven years, a child's interactions with family, peers, school, community networks, and media all play an important role in the development of interpersonal skills and social competence. Computers are now part of that mix, and concerns have been raised that children who form "electronic friendships" instead of human friendships might be hindered in developing interpersonal skills. Such concerns are heightened by reports that among children ages 8 to 16, some 20% have computers and 11% have Internet access in their bedrooms, which suggests that a sizable number of children may use computers in social isolation. Indeed, some research has documented negative social effects from time spent on computers. For example, one in-depth analysis of the effects of Internet use among a group of 93 families found that, during their first year with access, teens who spent more time online experienced greater declines in social involvement and increases in their feelings of loneliness and depression. (2000, p. 7).

Developing children require the proper amount of human interaction instead of technological interaction in order to properly develop and to reach all the proper motor milestones (Hatch, 2011). Jenny Radesky, clinical instructor in developmental-behavioral pediatrics at Boston University School of Medicine, urged parents to increase "direct human to human interaction" with their offspring. She encouraged more "unplugged" family interaction in general and suggested young children may benefit from "a designated family hour" of quality time spent with relatives without any television and mobile devices being involved (Walters, 2015).

Dr. Catherine Steiner-Adair, a clinical psychologist and author of the book The Big Disconnect, states, "… kids are missing out on a very critical social skill. In a way, texting and online is communicating it's not like it created a nonverbal learning disability, but it puts everybody in a nonverbal disabled context, where body language, facial expression, and even the smallest kinds of vocal reactions are rendered invisible" (Emhke, 2015).

Consider the increase in hours children spend in front of video screens—does this not mean that watching TV and other monitors mean that children do not spend time playing with other children? Within the history of humankind, the way children learn basic emotional skills from parents and peers, neighbors, and rough and tumble play with other children. Therefore, parents and teachers must beware, ready to provide direction and help children towards optimal social health, as empathy is a crucial part in our capacity to understand and befriend with one another. Parents and teachers can support and help train empathy development by giving children the chance to work and speak about emotional responses towards their various experiential content (Woolfolk, 1987:109).

CONCLUSION

Through information and explanation that has been presented above, we are able to sketch out that in the coming years more children and teens will be active in gadget use. It cannot be denied that gadgets have become a part of the life and activity of this 21st century generation. Therefore parents and teachers must anticipate and prepare to care for and guide children with

greater wisdom and responsibility. Parents and teachers can effect critical changes by helping children become good learners since birth.

The development of this current age and technology alongside cultural shifts cannot be avoided, and when children grow up to face many new challenges, parents and teachers have to realize that they are raising a generation with a different brain. The most prudent step forward is to understand the development and growth of curious children by providing support and guidance that is good and accurate. A study by the National Institutes of Health in America has found that the greater usage of modern technology can transgress old family boundaries, values, behavior and child well being. Many games available on the internet portray sex, murder, torture, and Mutilation all things that may spur children on to become aggressive and violent. On the other hand, playing outdoors (such as, in a traditional play ground) has proven to help children become more friendly and generally calmer (League, 2015).

It's important to come together as parents, teachers and therapists to help society "wake up" and see the devastating effects technology is having not only on our child's physical, psychological and behavioral health, but also on their ability to learn and sustain personal and family relationships (Rowan, 2013).

If children use gadgets and remain in front of monitors excessively, especially if combined with other technologies with screens such as television, children may be put at dangerous risk that threatens their psychological development. This constant surround may also cause gadget addiction in children. There are two factors that cause children to become addicted and spend too much time in front of screens. Firstly, that parents do not realize that they have abandoned their children due to their own absorption in gadget screens, and secondly that parents lack understanding of the dangers posed by digital electronics.

Fundamentally, all humans including children are created by God as social creatures who need interaction with each other. Therefore since birth babies and children who are in dire need receive attunement that is, enough interaction, attention and appropriate responses from parents and many others around to support their emotional development. Gadget use cannot fill this basic need, and if a parent does not fulfill this basic emotional need of their children, then negative consequences may come in terms of the growth and emotional intelligence of their children.

Gadget use by children that comes too early, that is unlimited, and is excessive will result negatively upon the physical, cognitive, social, and emotional development of these children. These unfortunate situations will also undoubtedly affect a child's emotional intelligence, empathy, and social intelligence. These two aspects are like two sides to a coin, both constituting important elements that each child needs in adulthood. Parents and teachers must remember that children need physical activity, social interaction, and the love and care of adults to become healthy, happy, and productive. Parents and teachers must also be ever watchful, since for children of all ages software choices that are inappropriate may bother their language development, focus, social skill, and motivation to think with full capacity (Healy in Costa,1999).

Too much time in front of screens may sap a child's time for exercise and interact in other social activities that are beneficial for their development. Moreover, with gadget use that is unmonitored, children may be exposed to violent, sexual, or otherwise age inappropriate commercial content, with negative consequence for the long run. To ensure that children grow and developed healthily and optimally, and to ensure that they can utilize gadgets and computers responsibly whether at school or at home, parents and teachers must limit usage time of gadgets and computers by young children. Their access and exposure to various content must also be monitored and directed.

It is worth noting that in this constantly changing age that parents and teachers are still the ones with main control. From this position of control, they much continue to guide the mental habits of children towards that which is deemed appropriate. Many parents still do not realize and do not know that they are responsible for the preparation of their children's (brains). Parents have to pay close attention to the basic needs of the brain and the nervous development that occurs in childhood and adolescence; for all that will not only shape the brains but also the intellectual standard that represents the future of our culture. Childhood and the brain have their own imperatives. In development, missed opportunities may be difficult to recapture. (Healy, 1999).

Advice

Parents must become aware that the exposure to and use of gadgets given to children have a profound influence. There are several things that parents and teachers can do, as follows:

1. Providing a good example for children by personally using gadgets responsibly.
2. Providing attunement or attention and response that is appropriate toward children ever since birth.
3. Not letting children under five to play freely with gadgets. Parents must be firm and wise in giving gadgets even more so to children under the age of two.
4. Providing children with the knowledge of responsible gadget use.

REFERENCES

Benjamin, B. 2016. What is Emotional Intelligence. (http://www.ihhp.com/meaning-ofemotional-intelligence), retrieved: December 7th, 2016.

Costa, A.L. 1999. Teaching for Intelligence II: A Collection of Articles. Illinois: Sky Light and Publishing Inc.

Ehmke, R. "Get Informed." Teens and Social Media. Child Mind Institute, 6 Nov. 2013. Web. 03 Feb. 2015. http://www.childmind.org/en/posts/articles/2013- 11-26-self-esteem-and anxiety-digital-age, retrieved: September 19th, 2016.

Frostig, R. 2012. What is brain plasticity, and can it help relieve psychiatric or degenerative brain disorders? www.brainfacts.org/About-Neuroscience/Ask-an-Expert/Articles/2012/ What-is-Brain-Plasticity, retrieved: December 28th, 2016.

Fuller, C. 1999. Opening Your Child's Nine Learning Windows. Grand Rapids, MI: Zondervan.

Goleman, D. 2014. Understanding Emotional Intelligence. http://www.free-managementebooks. com/dldebk-pdf/fme-understanding-emotional-intelligence.pdf.

Goleman, D. Emotional Intelligence. (http://www.danielgoleman.info/topics/emotionalintelligence/), retrieved: December 7th, 2016.

Gottman, J. & Declaire, J. 1997. The Heart of Parenting: Raising An Emotionally Intelligent Child. New York: Simon & Schuster Paperbacks.

Hatch, K.E. 2011. Determining the Effects of Technology on Children. Senior Honors Projects. Papers 260. http://digitalcommons.uri.edu/srhonorsprog/260

Healy, J.M. 1999. Endangered Minds: Why Children Don't Think and What We Can Do About It. New York: Touchstone Book.

Hessel, R. 2016. 11 hours a day in front of a screen. This is what it's doing to your eyes. https://www.weforum.org/agenda/2016/09/staring-down-the-dangers-of-the-digitalworkplace/, retrieved: January 11th, 2017.

Hoiland, E. & Chudler, E.H. Brain Plasticity, What Is It? Learning and Memory. (https://faculty.washington.edu/chudler/plast.html), retrieved: December 8th, 2016.

Johnson, G.M. 2006. A Theoretical Framework for Organizing the Effect of the Internet on Cognitive Development. ED-MEDIA 2006 Proceedings – Page 3041. https://pdfs.semanticscholar.org/ba92/d33f3c1ffc272665ece2b01f494eb121e6bb.pdf

Johnson, G.M. 2010. Internet Use and Child Development: Validation of the Ecological Techno-Subsystem. Educational Technology & Society, 13 (1), 176-185.

Kim, Y.B. 2013. Young Children in the Digital Age (https://www.unce.unr.edu/publications/files/cy/2013/fs1322.pdf), retrieved: December 7th, 2016.

Leaf, C. 2008. Who Switched Off My Brain: Controlling Toxic Thoughts and Emotions. Dallas, TX: Switch on Your Brain USA Inc. League, A. 2/16/2015. Kids and Gadgets: The Effects of Electronic Media on Developing Brains. (http://www.motherearthliving.com/smart-parenting/kids-and-gadgetseffects- of-electronic-media-on-developing-brains), retrieved: December 7th, 2016.

Levine, M. 2002. A Mind at A Time. New York: Simon & Schuster Paperbacks.

Moore, M. & D.L. Grisham. 2015. The Effect of Digital Technologies on the Culture of Literacy, The California Reader, WINTER 2015 • VOL. 48, NO. 2, p: 23-28;

O'Connor, B. D. 2011. Childhood Development and Media Use: A Literature Review of the Effects of Media on Children's Physical and Psychosocial Development. Washington State University – Spokane, WA, College of Nursing, August 2011

O'Keeffe, G.S. & Clarke-Pearson, K. 2011. Clinical Report—The Impact of Social Media on Children, Adolescents, and Families. http://pediatrics.aappublications.org/content/pediatrics/early/2011/03/28/peds.2011-0054.full.pdf

Pinantoan, A. 2012. October 1st. Educational Psychology: 20 Things Educators Need To Know About How Students Learn.

Prensky, M. 2001. "Digital Natives, Digital Immigrants Part 1", On the Horizon, Vol. 9 Iss 5 pp. 1-6 Permanent link to this document: http://dx.doi.org/10.1108/10748120110424816. Downloaded on: 29 January 2017

Relos, J.S. 2014. Electronic Gadgets should be Banned for Kids 12 and Below, Experts Say. (http://asianjournal.com/editorial/electronic-gadgets-should-be-banned-forkids- 12-and-below-experts-say/), retrieved: December 7th, 2016

Rowan, C. The Impact of Technology on Child Sensory and Motor Development. (http://www.sensomotorische-integratie.nl/CrisRowan.pdf), retrieved: December 7th, 2016

Rowan, C. 2013. The Impact of Technology on the Developing Child. http://www.huffingtonpost.com/cris-rowan/technology-children-negative-impact_b_3343245.html, retrieved: January 29th, 2016.

Shapiro, L.E. 1997. Mengajarkan Emotional Intelligence pada Anak. (Alih Bahasa: Alex Tri Kantjono), Jakarta: PT Gramedia Pustaka Utama.

Selwyn, N. 2012. Making sense of young people, education and digital technology: the role of sociological theory. Oxford Review of Education Vol. 38, No. 1, February 2012, pp. 81–96)

Shields, M. & Behrman, R. E. 2000. Children and Computer Technology: Analysis and Recommendations. Journal Issue: Children and Computer Technology, (Online), Volume 10 Number 2 Fall/Winter, 2000, http://www.futureofchildren.org/publications/docs/10_02_FulJournal.pdf,retrieved: December 7th, 2016.

Toppo, G. 2011. Experts Warn of Harm to Kids from Secondhand TV Viewing. (http://usatoday30.usatoday.com/news/health/wellness/story/2011-10-23/Expertswarn-of-harm-to-kids-from-secondhand-TV-viewing/50886060/1), retrieved: December 6th, 2016.

Walters, J. 2015. Smartphones Damage Social Development. Toddler Brains Research. (https://www.theguardian.com/technology/2015/feb/01/toddler-brains-researchsmartphones-damage-social-development), retrieved: December 7th, 2016.

Wanajak, K. 2011. Internet Use and Its Impact on Secondary School Students in Chiang Mai, Thailand. Retrieved from http://ro.ecu.edu.au/theses/394.

Woolfolk, A.E. 1987. Educational Psychology. 3rd Ed. New Jersey: Prentice-Hall, Inc.

Younts, J. 2011. Second-Hand Television. (http://www.shepherdpress.com/second-handtelevision-2/), retrieved: December 6th, 2016.

Identification of Mathematics Anxiety Through Gesture

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Abstract: Mathematics anxiety refers to stress which occurs in quite long period of time when person interacts with mathematics. It may happen in any conditions, such as when teaching and learning take place or in the real life. This case study aims at identifying the main cause of mathematics anxiety, especially; it is mathematics experience which the subjects obtained in a very young age. The research subjects were two pre-school children at the age of 4-5 years. The researchers selected the subjects consider the willingness of parents and suggestions from teachers; it, therefore, allows the researcher to do further and in depth observation and exploration about the gesture. The researcher did direct observation to identify gestures when they learnt basic number concepts, and when they used mathematical concept in daily life. In the study, the subjects made various gestures, such as hand movement and facial expression when make verbal communication. The observation was done for about six months on a daily basis. Based the data analysis, it was found that the two subjects had different anxiety levels.

Keywords: mathematic anxiety, gesture, pre-school

Mathematics is a very prominent subject to be taught to pre-school children because they will always need mathematic to survive in their daily life. Cargnelutti, Tomasetto, and Passolunghi (2016) stated that mathematical competence owned by adult learners is actually the learning outcomes of mathematics skill learnt in the young age; therefore, their experience learning mathematics in pre-school can determine their attitude towards mathematic in the future.

According to Lewis (2014), researches on Mathematics Learning Disabilities in general can be categorized in two main areas, they are: identifying students' learning disabilities and their character complexity. Some researches which have been conducted on the area of learning disabilities made use of mathematic learning achievement as the standard to measure students' ability. The criterion is students who get low score in mathematics are as many as 25% of the students. It is, of course, irrelevant for students' ability is not only determined by their cognitive aspect but also social and other factors.

Mathematics for Pre-School Children

Taylor (2014) said that basic competence of five-year old pre-school children comprises of four aspects: counting and cardinality; operations and algebraic thinking; measurement and data; geometry and spatial sense. Among the four aspects, counting and cardinality should be introduced prior to other aspects. The following are the indicators for counting and cardinality which are divided into five sub topics:

Mathematic Learning Development	Indicators
Number Names	Count 1-20
Cardinality	Count up to 10 objects using one-to-one correspondence, regardless of configuration, using the number name of the last object counted to represent the total number of objects in a set

	Count out a set of objects up to five
Written Numerals	Recognize written numerals up to at least 10
Recognition of Quantity	Quickly recognize and name, without counting, the number of objects in collections of up to at least five items
Comparison	Compare sets of up to 10 objects using a visual matching or counting strategy and describing the comparison as more, less than or the same

Anxiety

Anxiety refers to condition when people frequently feel insecure cause by fear, and it is normally followed by inconsistent and avoidance behavior (American Heritage Medical, 2007, p. 38). The inconsistency could be observed or may appear either from utterance or attitude, for example being inconsistence to response to the same thing. Moreover, people who feel anxious will automatically show avoidance behavior to lower their anxiety.

In this context, anxiety and fear was understood in different way. Fear is emotional response toward facts, while anxiety is an anticipation toward something which has not happened. Both fear and anxiety have the same symptoms, sleeping disorders, over exhaustion, and concentrating difficulties (APA, 2013, p.189). In this study, the researchers limited the research scope only on the difficulties to concentration problems.

In addition to concentrating difficulties and inconsistency, anxiety symptoms can also be found physically from face gesture and body gesture. Face gesture includes lip suck, lip bite, lid droop, eyes closed, and eyes turn left/right/up/down. Then, body gesture includes hands pressed together in a moving sequence, tapping the tips of the fingers on the table, biting the nails, head tilt left/right/up/down

Mathematics Anxiety

People who experience mathematics anxiety feel stress and fear when they are working or interacting with mathematics (Beilock & Willingham, 2014). Commonly, anxiety was caused by two factors, internal and external factor, and sometimes combination of both factors. Internal factor is more to the affective side, for instance feeling anxious and feeling hatred with mathematics. Bad experience when studying mathematics at school (include the curriculum) at home can create anxietyas well.

Mathematic anxiety caused by internal factors can be identified since in a very young age through gesture. Novack, Wakefield, Congdon, Franconeri, Meadow (2016) has investigated gestures employed by eight to ten years old children when they did equality task 2 + 5 + 8 = …. + 8. It was found that they spontaneously made gesture, like 'V' alphabet, when they could do the task very well using grouping strategy. They have adequate exprirmental evedince that what people do influence their internal feeling (Kontra, Beilock & Goldin-Meadow, 2012). At this stage, they have little experience learning and interacting with mathematic. Furthermore, gestures can be used to identify mathematic problems because they just learn mathematics. They are still beginner. Knowing whether children experience anxiety or not is very beneficial for teachers to consider the teaching and learning process in the future.

The results of some studies revealed that low basic mathematics competence is not the only factor that causes mathematics anxiety, but psychological factor also have significant influence on students' performance (Necka, Sokolowski, Lyons, 2015). Those who often feel anxious tend to experience mathematics anxiety easily.

Research Method

The subjects of the study are two students at the age of four – five years old. The name is written in initial, they are AY and MA. The researchers decided to choose them due to close relationship, so it was easier for the researchers to collect data collection. Moreover, the researchers can do further and in depth observation and exploration. Based on the observation conducted in one kindergarten in Malang city, MA and AT were very active students and often interacted with teacher and classmates. More to that, they made various different gestures compare to other students. AY and MA is cousin; they grow in the same family environment. They also attended the same school, but in different class.

This study was carried out in four steps within around six months. First, the researchers observed the teacher and learning process for five meetings respectively in order to be able to select the appropriate research subjects. Finally, the researcher decided to select AY and MA because they were very active, and they parents agreed to participate in this study.

Second, the researchers started building rapport with their parents to inform them the appropriate topics for pre-school children. The topics were counting and cardinality. The selected topics were in line with the material they learnt at school. The researcher, then, discuss about the project and the material with their mother to ease them giving treatment about the topics at home.

Third, the researchers observed AY's and MA's attitude in school and at home with the purpose of recording their gestures when they were working with mathematics. The researchers used hidden camera in order to record natural responses.

Four, the researcher did coding process for every gesture which later would be analyzed. The result of this study was mainly on the use of gesture when the subjects interacted with mathematics under the with the teacher's or parents' accompaniment. All in all, the research procedures can be seen in the diagram below:

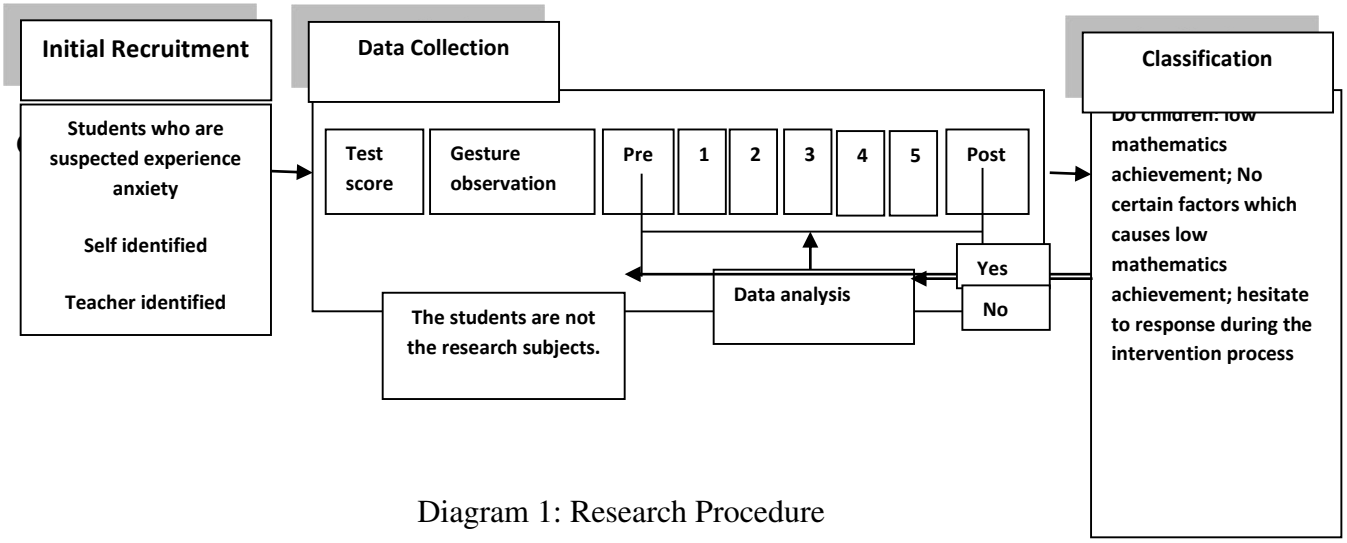
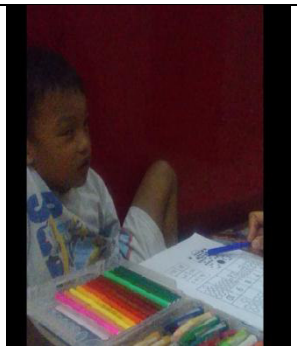
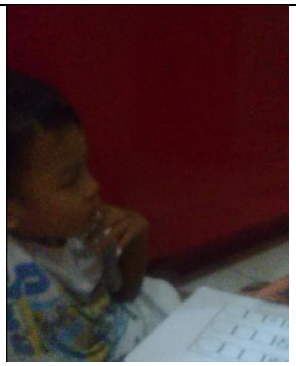


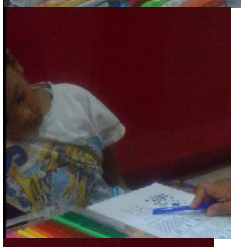
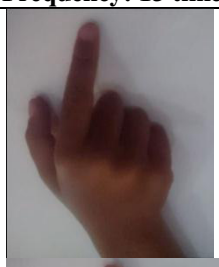
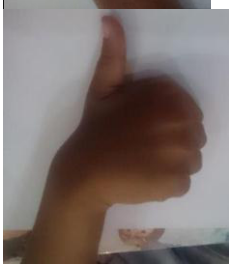
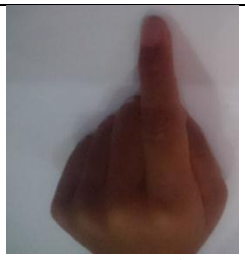
Diagram 1: Research Procedure

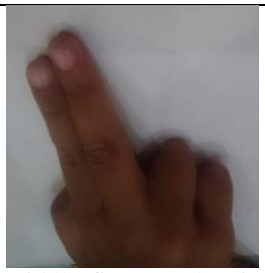
FINDINGS AND DISCUSSION

The followings table summarizes the findings of the study. The subjects made various gestures when they interacted with mathematics, such as (1) eye sight direction, (2) lips shape, (3) head position, (4) hands movements, and (5) Representation of number using fingers:

Table 1: Gesture

Gesture	MA	AY
Lip Suck	None	None
Lip Bite	**Frequency: 4 times**	**Frequency: 1 times**
Lid droop	None	None
Eyes Closed	None	None
Eyes turn left/right/up/down	 **Frequency: 10 times**	None
Hands pressed together in a moving sequence	None	None
Tapping the tips of the fingers on the table	None	None
Biting the nails	 **Frequency: 1 times**	None

Head tilt left/right/up/down	 **Frequency: 13 times**	**Frequency: 3 times**
Representation of number 1	  MA represented Number 1 twice; he used his pointed finger and thumb. His thumb was not fully kinked,so it caused missunderstanding either number 1 or 2. It reflected his inconsistency in giving response.	 AY represented number 1 only once. She was very consistent using her pointed finger. For this case, parents' role was very important; she used the same gesture like what had her mother taught her at home.

Representation of number 2	 Middle finger and pointed finger were very close. It means he worried about something.	AY represented number 2 with two fingers (pointed and middle finger).
Representation of Number 3	The three fingers (ring, middle, and pointed fingers) were very close. It indicated that he worried about something.	The three fingers represented number 3. Her gesture indicated that she worried about something. The two fingers (middle and ring fingers) were very close, while the pointed finger was far from the other.
Representation of Number 4	Four fingers were very close, it indicated that he felt worried whether he answered the questions correctly or not. He did not fully bend thumb, therefore, it may create confusion or it is ambiguous.	No response
Representation of number 5	The three fingers (pointed, ring, and little) were very close, while the tumb and the pointed finger were slightly open. It represented any doubt.	All the fingers were widely open. She was very sure with her answer.

Representation of number 6	To represent number 6, MA prefered to use his left hand more dominant compare to his representation for other numbers. He mostly used his right hand. Number 6 is the first number which requires five fingers from one hand and one finger from another hand. The shift of using one hand to two hands is sometimes confusing for pre-school children who experience anxiety.	All the fingers were widely open. It revealed that she was very confident with her answer. She used her thumb to represent number 1. It prooved that she understood the concept that number 6 is made up of five fingers plus one finger. In this case, the subject chose the thumb as it is the closest finger to the five fingers on the left hand.
Representation of number 7	MA represented number 7 with all the fingers on the right hand, and two finger (ring and little finger) from the left hand. In this interesting that he used the two most left fingers.	Seven fingers that represented number 7 were widely open. It showed that AY responded the question very confidently.
Representation of Number 8	No Response	Eight Fingers that represented number 8 were widely open. It showed that AY responded the question very confidently.
Representation of number 9	No response	Nine Fingers that represented number 9 were widely open. It showed that AY responded the question very confidently.

Representing number 10	Not all MA's fingers were widely open. It represented inconsistency between the left and right hand. The position of left hand was different from the right hand indicated unsure or doubt eventhough he knew the correct answer.	All the ten fingers were open widely when she represented number 10. It means that AY answered the questions very confidently, without any doubt.

CONCLUSION

Mathematics anxiety is known as one factor that causes low mathematics achievement. While low mathematic achievement is not always a result of mathematics anxiety. Therefore, it is suggested that teachers and parents understand and familiar with the symptoms of mathematics anxiety in order to be able to give feedback for students' problem. In this study, MA and AY did not have good achievement on math. By observing the gesture, it is found that the subjects experience mathematics anxiety. They have different level of anxiety; in this case MA was more anxious than AY.

REFERENCES

American Heritage Medical Dictionary Editors 2007. *The American Heritage Medical Dictionary*. Boston, MA: Houghton Mifflin Harcourt (HWH).

American Psychiatric Association 2013. The Diagnostic and Statistical Manual of Mental Disorders, 5Th Edition. Washington, DC: Author.

Beilock, S.L. & Willingham, D.T. 2014. *Math Anxiety: Can Teachers Help Students Reduce It?*. American Educator

Cargnelutti, E., Tomasetto, C., and Passolunghi, M.C. 2016. How is anxiety related to math performance in young students? A longitudinal study of Grade 2 to Grade 3 children. *Cogn. Emot.* doi: 10.1080/02699931.2016.1147421.

Craske, M.G., Rauch, S.L., Ursano, R., Prevoneau, J., Pine, D.S., & Zinbarg, R.E. 2009. *What is an anxiety disorder? Depression and Anxiety*, 26, 1066-1085

Katherine, E.L. 2014. Difference Not Deficit: Reconceptualizing Mathematical Learning Disabilities. *Journal for Research in Mathematics Education*, Vol. 45, No. 3 (May 2014), pp. 351-396. Published by: National Council of Teachers of Mathematics

Kontra, C.E., Goldin-Meadow, S., & Beilock, S.L. 2012. Embodied Learning across the lifespan. *Topics in Cognitive Science*, 1-9. doi:10.1111/j.1756-8765.2012.01221.x

Novack, M.A., Wakefield, E.M., Congdon, E.L., Franconeri, S., & Goldin-Meadow, S. 2016 There is more to gesture than meets the eye: Visual attention to gesture's referents cannot account for its facilitative effects during math instruction. *Proceedings of the 37th Annual Meeting of the Cognitive Science Society*,(pp/ 2141-2146). Austin, TX: Cognitive Science Society

Necka, E.A., Sokolowski, M., Lyons, I.M. 2015 *The role of self-math overlap in understanding math anxiety and the relation between math anxiety and performance*. Front. Psychol., 14 October 2015 | https://doi.org/10.3389/fpsyg.2015.01543

Taylor, M.J. 2014. CTELDS*: Connecticut Early Learning and Development Standards* (What children birth to five, should know and be able to do).

The Effect of Problem Solving Method vs Brainstorming Method and Learning Motivation towards Learning Outcomes in Science

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Abstract: Learning outcomes is one of the most important aspect of learning variables. Learning outcomes are influenced by condition of learning and learning methods. Problem solving method and brainstorming method can be used to improve learning outcomes. Object of this research is 50 students of PGSD FKIP UNDANA, which is divided into 2 groups with 25 students in each class. The first class used problem solving method, and the other used brainstorming method. Both methods are connected to learning motivation to asses learning outcomes of science subject. This research uses factorial design which is factorial 2x2 with random assignment to treatment. Research instrument was used to measure learning outcomes which are pre and posttest, questionare was used to measure motivation and learning outcomes of analysis and understanding science concepts with hypothesis that used 2 ways anova. The results show that; there is a difference in learning outcomes between problem solving method and brainstorming method with F 27.071 with (sig).000<p. 0.05. There is also difference in learning outcomes of student with high and low motivation with F 75.389 with (sig).000<p. 0.0.05. This research also found that learning outcomes are affected by learning method and learning motivation (.039 < 0.05).

Keywords: problem solving, brainstorming, learning motivation, learning outcomes

One of the problems related to the quality of education is the learning process that occurs in higher education. Problems occurred in the process of learning which is still teacher centered in colleges, including UNDANA specifically on learning science on PGSD, so that changes need in the term of organizing instructional to achieve quality and good learning outcomes. The intent of this change is a change towards learning from a teacher-centered to student-centered, where students become more active. To make students more active then, the style of teaching by teacher need to be change. Using of conventional learning method need to reduce. The observations result of the academic year 2014/2015 at PGSD FKIP UNDANA indicates fact of learning such as; first, students who studied science at PGSD still far from student centered learning. This is because of the limitations of literature, infrastructure, and also the students who still think that the lecturer is the main source of information. In addition to the lack of space for students actively engaged in learning. In this case is relating to the use of conventional learning methods (lectures, questioning).

Second, students are generally less active in learning. Students are not active because of fears that the concept presented is contrary to the concepts taught by lecturers. This fear is emphasized with students never taught to think critically and creatively to express what they thoughts, as well as practice to find the concept itself. Third, student found difficulty to fit in science learning, because, most of the students who were in the program study PGSD is not come from department of sciences while in high school education. So in the process of learning a student is facing difficult to adjust. Fourth, the presumption of science is a difficult subject and scary. Assumptions about the science when embedded within the student will affect teaching and learning processes that have an impact on the achievement of the learning results

are insufficient. Fifth, the use of learning methods that are less varied and interesting, have an impact on the results of a study. Learning methods used are still a teacher centered like lectures, combined with the discussion, and the FAQ, and home work. Observation results showed 75% teacher at PGSD still using learning methods that is teacher centered. Although using of the methods was considered already quite varied but not enough impact on the results of the study.

To improve the cognitive ability of students required the selection of appropriate learning methods. The selection of learning methods regards to the conditions of learning and the expected results to be achieved. The use of learning methods associated with cognitive process. Where learning methods encourage learner to see experience, then push learner to do the experiment from the experience. The results of the experiment will help learner to construct their knowledge and develop understanding. The result of knowledge was depending on knowledge process by learner, which will used (Eggen & Kauchak, 2010).

The use of proper learning strategy can increase motivation and improve the learning outcomes. The link between learning methods, motivations and learning outcomes is evidenced by the results of the research. Research conducted by Klein and Pridemore (1994) concerning the effects of orienting activities and practice on continuing motivation, achievement, and student behaviors in a cooperative learning environment, note that the use of cooperative learning enhance learning results, motivate students to Excel and produce a change in behavior. The motivation of learning related to how learner have a tendency to find learning activities independently and have meaning. Because the motivation is an active process to achieve goals, lead, and manage one's actions all the time (Slavin, 2006). Motivation refers to the intensity of the action and the direction or goal, thus affecting learner to answer its needs and desires will be the achievement of a better learning results. Learner through learning activities independently will get the results of their learning processes which can then be measured and useful for learner, so that the selection of the method of learning and motivation can encourage students especially PGSD students related to learning science.

Sciences are a discipline that examines all of the results of human activity in the form of knowledge about the idea, the concept of an organized about the universe so that the acquired experience through a series of scientific process. In many cases, science has always been subjects complained many people especially students, as one of the subjects that are difficult and scary. It said to be difficult because science related to symbols and numbers that are abstract. Said to be scary because most teachers in process analytical study tend to use conventional methods, namely classical, lecture, and so much assignment. In addition, some students considered that the concept of science is very complicated so they are not able to develop themselves. This causes the students often wrong in understanding the concept of science and even less interest. Therefore, teacher claimed to be able to design a study that can encourage students to increase the cognitive dimension, reaching the good learning outcomes, solve problems in learning, and increase the motivation to learn to achieve a good learning outcome.

Observations during the year 2014/2015, found that the learning methods used in PGSD for learning science subject still conventional in nature. Based on those facts necessary testing of the use of new methods that can improve the learning results of students PGSD UNDANA Kupang. Students need to be given the ability to be able to think in high level (high order thinking skill) based on the substance of knowledge that is given during the learning process. But in fact, the students are not able to use the knowledge that is given to solve the problem (Stepich & Ertmer. 2009). Methods that can be used to improve learning outcomes are problem solving method and brainstorming method. Both of these methods can be used to look at the effectiveness of its use against the increase in the results of the study. Use of the problem solving method and brainstorming method related to high order thinking skill where HOTS

needed to complete a learning problem in science, the procedure through the scientific process, as well as encourage students to achieve a level of creative thinking and critical thinking.

Problem solving is the process of condition to solve the problem of belonging to neither of which comes unexpectedly or problems. Solving the problem starts from understanding the issues, make plans, to implement the settlement plan, and evaluate the effectiveness of the draft (Jonassen, 2011). Problem solving is a method of learning that can enhance the ability of higher-order thinking. Problem solving to divide the problem into two i.e. structured problem and not structured (Shunck, 2012). Structured problems closely related to academic issues. Because of problems in learning the science is structured problem, then problem solving method can be used.

Problem solving method is a way to present the material to learning by making the problems to be solved. This method encourages the learner to get involved actively associated with problem solving, encouraging thinking scientifically, critically and creatively, as well as involving a complex cognitive processes. Problem solving is seen as the process of forming the concept, style and structure of thinking to resolve the problem (Reusser. 1988). The use of this method will encourage learner stimulate the thinking of looking for data to decision-making, and the process to create a way out of the problems of creating meaningful learning. De Leeuw (1983) in his research about teaching using problem-solving to teach algorithms and heuristics in solving problems, obtain results that problem solving is very effective to shape the way you think, and generates problem solving in structured. In addition the study also shows that the problem solving can increase the motivation to learn.

The use of problem solving method in learning science is more natural and effective, compared to conventional methods such as lecture (Adams & Hamm. 2010). It further said Adams and Hamm (2010) in I science learning, problem solving is a process to generate questions, collect evidence, explain the solution, and makes the prediction results. Through this process students gains knowledge, understanding of concepts, models, and theories. In addition the research provided by Aleixandre and Erduran (in Adams & Hamm. 2010) shows that, the use of problem solving can boost creative thinking ability, motivation and give change in attitude on all types of learner. As well as, helping learner to understand the basic function of any material will be studied. Thus, this method can be used for teaching science on students on PGSD FKIP UNDANA. This learning method is using constructivist learning theory and cognitive learning theory to construct a thought and result in problem resolution.

Whereas a brainstorming method as a way to stimulate creative thinking. Brainstorming focuses on solving problems and using the ideas that are owned by the learner as a creative ways (Partin, 2009; VanGundy, 2005). This method provides the learning conditions in which learner should be; 1) conveys the idea without fear of mistakes because this method does not adhere to the principle of judging ideas, 2) wild ideas (thinking out of the box) can be accepted, 3) submission of the idea to build another idea that has been around, 4) search or a look at the number of ideas (in quantity) which can be obtained (VanGundhy, 2005).

Brainstorming is a one method used to teach science effectively. Because brainstorming encourages learner to boldly expressed opinions without fear of wrong concepts, creating alternatives, and explain it on the basis of learning understanding (Wayne. 1999). Brainstorming is also used to encourage learning solving problem independently, using different approaches (Romberg, Carpenter & Dremock. 2005). Brainstorming methods provide opportunities for potential discussion took place which encourages learner to explore their knowledge or understanding to generate ideas to answer the question (Hassard. 2005). Further, described Hassard (2005) that the method used for the achievement of metacognition at student. Achievement of Metacognition occurs because every learner in the process of using the brainstormed ideas and provide problem resolution. Brainstorming is a method used to collect

ideas objectively to see the value, capabilities, and the concept is owned by learner. In teaching science using the brainstorming, the student can ask an alternative hypothesis, synthesizes information, and think creatively. Thus this method can help students to construct their ideas and produce an idea that could solve the problem. Due to the principle of a brainstorming based on creative thinking and using constructivism learning theory.

Based on explanation in above, then it can be said that the problem solving method and brainstorming method can be used to teach science. With the characteristics of the science learning places emphasis on discovery, trial, and practice conducted systematically based on knowledge (facts, concepts, methods, and criteria) who has been there to make sure the find problem solving, acquisition of new knowledge, and test existing knowledge (Williams, 2011), then both of these methods appropriate for use in learning. Both of these methods can be used in learning science on PGSD FKIP UNDANA to form students who think creatively, can solve the problem, as well as generating metacognitive to improve the learning outcomes of students.

This research focus to see how the influence of problem solving method when compared with brainstorming method if linked with the motivation of learning that will have an impact on student learning outcomes on PGSD FKIP UNDANA. So this research aims to see "the effect of Problem-Solving Methods vs Brainstorming Method and Learning Motivation towards Learning Outcomes Students at PGSD FKIP UNDANA Kupang.

HYPOTHESIS

The hypotheses in this study are:

1. There is a difference in student learning outcomes, which is learning with problem-solving method and brainstorming method.
2. There is a difference in learning outcomes, between students who have different learning motivation.
3. There is an interaction between problem solving method and learning motivation towards learning outcomes, and brainstorming method and learning motivation towards learning outcomes in students.

METHOD

This study used a factorial research design. Factorial design is model of experiment research design that pays attention to the possibility of moderating variables that affect the dependent variable or variables the dependent variable or the treatment of the results. In a factorial design samples selected randomly in the control group and the experimental group (Sugiono, 2010). Factorial design used in this study is the 2 x 2. 2 x 2 factorial design means there are two free variables and have different levels. Free variables and levels which are owned in 2 x 2 factorial designs of experiments are shown in table 1.

Table 1. Factorial Research Design 2x2

		Instructional Method	
		Problem solving method	Brainstorming method
Motivation	High	Y_1	Y_2
	Low	Y_3	Y_4

By comparing the two methods of learning are problem solving and brainstorming. Then the two classes are conducted evaluation and comparison between the classes got problem-solving methods and classes with brainstorming method. In the experimental classes are both experiencing changes increase and decrease in that place after learning the IPA uses the method of problem solving compared results before using the brainstorming method. Wants a model this through two steps, namely:

1. Gives two classes pretest and posttest.
2. Provide treatment to experimental subjects (two classes), the treatment is using problem solving method and brainstorming method on students.

Subject

This subject selected by *random assignment to treatment*.

1. The subject of this research is majors in PGSD FKIP UNDANA, III semester, academic year 2015/2016.
2. Subject selection techniques, using cluster where each class amounted to 25 student.
3. The amount of the research subject is 50 students, in III semester. Academic year 2015/2016 which are divided into two classes.

RESULT

Description of Research Subject

The study was performed on college students at third semester on PGSD FKIP UNDANA academic year 2015/2016. Consist of 50 students and is divided into two classes. Each class consists of 25 students. Where at first class there are 25 students have been given the treatment by using the problem solving methods and another student given a brainstorming method. The treatments for two classes are equal. The same treatment is; given material and associated with pre-test and post-test. Both groups carry out the learning process in accordance with the design of the research.

Table 2. The distribution of the subject based on the learning method and motivation

		Learning Methods		Total
		Problem Solving	Brainstorming	
Learning Motivation	High	23 (92%)	16 (64%)	39 (78%)
	Low	2 (8%)	9 (36%)	11 (22%)
Total		25 (50%)	25 (50%)	50 (100)

An Overview of Pretest Result on Learning Outcomes

The data from pretest gives an early overview related to the ability of the subject. Does the subject have the equal capability or not. The results of the pre-test and mean and on the two groups could not be relied upon to notice any significant difference. Be using normality test results with the Kolmogorov-Smirnov test to get numbers of significance (SIG). Test results obtained for learning methods, show that .072 sig > 0.05 so the data is distributed normally. Test results with the Levene's test on the basis of mean, obtained the number of significance (SIG) 715 > 0.05, so the data pre-test revealed homogeneous and the two groups have the same academic ability. Pre-test data is normally distributed and have variance homogeneity.

Normality Test

Test of normality research data, namely data score the results of the study. Normality data testing uses a Kolmogorov-Smirnov test. Normality test results shows that the results of the study were the vicinity of the test lines that lead to the upper right, and no data is located far from the scattered data. While significant numbers on Kolmogorov-Smirnov results for each study method, for problem solving (.200) and brainstorming (.093). This result is obtained that the value of the variable on the significance of the results of the study are greater than 0.05, so it can be stated that the research data is distributed normally.

Table 3. Normality Test Result

Tests of Normality							
	Learning Method	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Learning Outcomes	Problem Solving	.117	25	.200	.967	25	.582
	Brainstorming	.161	25	.093	.907	25	.026

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Homogenity Test

Homogeneity test of significance using the Levene's Test for dependent variable (learning outcomes), the results shows that learning outcomes is (SIG). 881. That number is greater than 0.05 and suggest that these variables are homogeneous.

Table 4. Levene's Test of Equality of Error Variance

Levene's Test of Equality of Error Variance				
	F	df1	df2	Sig.
Learning Outcomes	.222	3	46	.881

Based on the table, it can be seen that the value of sig > 0.05, thus it can be said that the data homogeneous distribution. Due to the spread of data homogeneous then it can do the test of hypothesis. After testing homogeneity data, conducted a test to see the effectiveness of the method. Testing the effectiveness of this method uses the gain value. The gain value obtained from the value of post-test reduced the value of the pre-tests. The test results using the t-test two independent sample, the result shows values is (SIG) 228 > 0.05. The result means both of these methods can be used and effective in improving learning outcomes.

Hypothesis Test

Based on the test requirement analysis, namely the test of normality and homogeneity of variance data test, the results shows, both of these variables have normal data and homogeneous. Therefore the condition is eligible to proceed on the hypothesis testing 2 way ANOVA. From the results of hypothesis testing ANOVA analysis, the results of the data as shown in table 5.

Table 5. Analysis Using Two Way Anova

Tests of Between-Subjects Effects					
Dependent Variable: Learning Outcomes					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	12296.612[a]	4	3074.153	62.851	.000
Intercept	413205.128	1	413205.128	8447.951	.000
Method	1324.099	1	1324.099	27.071	.000
Motivation	3687.416	1	3687.416	75.389	.000
Method * Motivation	213.522	1	213.522	4.365	.039
Error	4646.628	95	48.912		
Total	482886.000	100			
Corrected Total	16943.240	99			
a. R Squared = .726 (Adjusted R Squared = .714)					

Test of between Subject Effects is the test to determine the effect of independent variable towards dependent variable along with the interaction between learning methods and learning motivation. Based on hypothesis test, the test gained; the effect of problem solving method vs. brainstorming method towards learning outcomes. The first purpose of this research is to test the differences between student who taught with problem solving method and children who taught with brainstorming method. Based on result from 2 way ANOVA, obtained that F ratio is 27. 071, and this ratio have a significance is (.000), it means p <. 005, so it can be said that H_0 is rejected, it means there is differences between learner who is used problem solving method and learner who is used brainstorming method. Secondly, the purpose of this research is to know about the influence of learning motivation towards learning outcomes. The test in second hypothesis is to test and compared students with high motivation and student with low motivation. Based on the test result using 2 way ANOVA, obtained that F ratio is 75. 385, with significance (.000). Thus, the ratio of the significance probability is minor than the value of the degrees of significance (.000 < .0.05). The result shows that, there is difference in learning outcomes between students with high motivation and students with low motivation. Third, there is an interaction between learning method and learning motivation towards learning outcomes. Based on 2 way ANOVA test, obtained F ratio is .365, with significance is (.039). The result of significance ratio based on test is minor than significance ratio (.0.05), so p < 0.05 (.039 < 0.05), it means there is an interaction between learning method and learning motivation toward learning outcomes.

DISCUSSION

The Effect of Problem Solving Method and Brainstorming Method towards Learning Outcomes

Learning methods is a ways to achieve different learning outcomes under different conditions. In its use of learning methods are used to organize the content of the learning material, delivering learning, organize interaction between learners with other learning variable (Degeng, 2013). Problem-solving method, is a method of learning that do focus on teaching problem-solving skills and followed by reinforcement of skills. Problem solving is used to locate or find the solution in this pattern, the rules of a problem to solve. Problem solving is an ability to seek information, analyze, and identify the problem to be able to produce a selection of ways to solve problem so that a decision may be taken to resolve the problem.

Problem solving method begins by identifying the issue, confirmed the problem, choosing a strategy, implementing the strategy and evaluating results (Jacobssen, Eggen, Kauchak, 2009). Based on these steps this method encourages students to have high level thinking ability and creative in solving a problem. This method also encourages to make student as a centered of learning. Problem-solving methods are used to seeing its effect on the improvement of the results of the study. Aside from the problem solving method, brainstorming method is also used in this study to see how this method influence in the increase of learning outcomes. Brainstorming method focused on solving the problem by digging the idea or ideas from each member of the group, and any idea of a given stimulus to get the answer from the problem (VanGundy, 2005). Brainstorming methods have the goal to produce a variety of creative ideas which can then be used resolve problem (Partin, 2009).

Based on the characteristics of both these methods, then the problem solving method and brainstorming methods used in this study was implemented on students. The goal was to see the influence of both these methods towards student learning outcomes. Research results was obtained that both of these methods affects the results of student learning, but there is a difference in learning outcomes between students used problem solving method and brainstorming method. Based on the data, students who treatment by problem solving method gained mean for posttest score is highly than students who treatment by brainstorming method (problem solving = 69. 739 and brainstorming = 67.323). Both of this methods can increased students learning outcomes, because problem solving and brainstorming methods, provide stimulus to students to think creatively, active, and encourage students to work cooperative in groups, as the result there is an interaction between students and students have an understanding about the topics. The difference between problem solving method and brainstorming method in learning outcomes, is due to the existence of differences in the characteristics. Problem solving method more emphasis on structured problem solving and then evaluate the implementation. On the contrary, in the brainstorming method, solving problem is unstructured, and there is no step in brainstorming to evaluate idea, after implementation.

The Effect of Level Learning Motivation towards Learning Outcomes

Motivation to learn is an internal and external impetus that causes a person (individual) to act or do achieve the goal. Based on the results of research, obtained that the motivational impact significantly to improved learning outcomes. High motivation and low motivation, have an influence on learning outcomes of students. Based on data test retrieved that learning outcomes from students who have low motivation have an average 64. 167. While the high motivation has average 72,895. Based on the data there is an increased in learning outcomes for students who have high motivation. This study shows that there is a differencies between students with high motivation and students with low motivation on PGSD FKIP UNDANA. Based on theory, there is a correlation between learning outcomes and learning motivation (Eggen, Kauchak, 2012). This study proved that, when students have a high motivation to learn and will be impact on student learning outcomes. Joyfull learning, creative thingking and active learning also help and encourage students to have a high motivation, and succeed. Teacher also can provide students with instructional media, help students to have a conffidence, challenges students to think out of the box, give them sense of safe in classroom, and motivate students to reach their personal goal in learning process.

The Effect of Interaction Between Learning Methods and Learning Motivation towards Learning Outcomes

The research results obtained that there is interaction between the learning method and motivation to learn, towards learning outcomes. The value of significance are shown based on the ANOVA test shows that p = 0.39 and is smaller than the value of the sig value (0.05). The interactions that are formed from the used of learning methods, as well as learning motivation towards learning outcomes. Combination between learning methods and learning motivation give an interaction towards learning outcomes. This interaction affected by; 1) Using new learning methods in learning process, and give the bump into students, and encourage students to have hope for enjoy the learning process. 2) Students concerns related to the tedious process of learning is reduced, as a result of making students become excited in attending class. 3) Comprehensive learning through the selection of learning method and assist students learning motivation are combined to enhance learning outcomes. The interaction between learning methods and motivation to learn caused by the selection of the learning methods is differ from conventional methods used during this time.

Based on this study, we can conclude that problem solving method and brainstorming method can increased students learning outcomes. Where problem solving method gave better result than brainstorming method. Students with high motivation to learn can gained better result on learning outcomes compared with students with low motivation. There is interaction between learning method and learning motivation towards learning outcomes.

REFERENCES

Adams, D., Hamm, M. 2010. *Demystify Math, Science, and Technology: Creativity, Innovation and Problem Solving*. New York: Rowman and Littlefield Publisher. Inc.

Adir. J. 2007. *Decision Making and Problem Solving Strategies*. Kogan Page: Philadelphia

Al-Katib, B.A. 2012. *The Effects of Using Brainstorming Strategy in Developing Creative Problem Solving Skills Among Female Students in Princess Alia University College*. American International Journal of Contemporary Research No. 2. Vol. 10.

Almaghawry, A.M. 2012. *Effectiveness of Using Brainstorming Technique to Learn Some Basic Skills and Collection Knowledge for Beginners in VolleyBall*. World Journal of Sport Science. no. 6. vol. 6.

Ardhana, W. 1987. *Bacaan Pilihan dalam Metode Penelitian Pendidikan.* Jakarta; Depdikbud.

Arends, R.I. 2012. *Learning to Teach, 9th edition*. New York: Mc Graw Hill. Adair, J. 2007. *Decision Making and Problem-Solving Strategies*. Philadelphia: Kogan Page.

Arikunto, S. 2006. *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.

Barak, M. 2012. *Impacts of Learning Intentive Problem Solving Principles: Student Transition From Systematic Searching To Heuristic Problem Solving*. Educational Technology Reseach and Development vol. 60. pp. 657-679.

Beck, R.C. 1990. *Motivation: Theories & Principles*. Englewood Cliffs N. J.: Prentice Hall.

Bishop, K., Denley, P. 2007. *Learning Science Teaching*. New York: Open University

Borich, G.D. 1999. *Effective Teaching Methods*. Englewood Cliffs: Merrill an Imprint of Prentice Hall.

Krulik, S., Reys, R.E. (eds). 1980. *Problem Solving in School Mathematics*. New York: the National Council of Teachers of Mathematics, Inc.

Degeng, N.S. 1999. *Peran Teknologi Pembelajaran di Era Kesemrawutan Global.* Makalah Seminar Teknologi Pembelajaran 26 September 1999 di STKIP Singaraja, Bali.

Degeng, N.S. & Pali, M. 2002. *Model Pembelajaran Berorientasi Pengembangan Kecerdasan Emosional di Sekolah Dasar: Eaktor-Faktor yang Berpengaruh dalam Rancangan Pembelajaran.* Laporan RUT VIII. Jakarta: Kementerian Riset dan Teknologi RI-LIPI.

Degeng, N.S. 2013. *Ilmu Pembelajaran: Klasifikasi Variabel untuk Pengembangan Teori dan Penelitian*. Bandung: Kalam Hidup.

DeHaan, R.L. 2009. *Teaching Creativity and Inventive Problem Solving in Science*. Journal Life Science Education. vol. 8. pp. 172-181.

De-Leeuw, L. 1983. *Teaching Problem Solving: An ATI Study of the Effect of Teaching Algorithmic and Heuristic Solution Methods*. Instructional Science Journal. no. 12, pp. 1-48.

Dick, W., Carey, L., Carey, J.O. 2009. *The Systematic Design of Instruction.* Seventh edition. New Jersey: Pearson.

Driscoll, M.P. 1994. *Psychology of Learning for Instruction*. Boston: Allyn and Bacon.

Eggen, P., Kauchak, D. 2012. *Strategies and Models for Teaching: Teaching Content and Thingking Skills, Sixth Edition*. Boston: Pearson Education, Inc.

Eggen, P., Kauchak, D. 2010. *Educational Psychology Windows on Classroom*. Ohio: Merrill.

Elliot, S.N., Kratochwill, T.R., Littlefield, J., Travers, J.F., 1996, *Educational Psychology, Effective Teaching Effective Learning,* Madisson: Brown&Benchmark Publisher

Elliot, S.N., Kratochwill, T.R., Littlefield, J., Travers, J.F. 2000. *Educational Psychology: Efective Learning* 3rd. Boston: McGraw Hill Co.

Gredler. M.E. 2009. *Learning and Instruction: Theory into Practice*. London: Pearson Education.

Hassard, J. 2005. *The Art of Teaching Science: Inquiry and Innovation in Middle School and High School*. New York: Oxford University Press.

Jacobsen, D.A., Eggen. P., Kauchak. D, 2009. *Methods for Teaching*. New Jersey: Pearson Education.

Jonassen, D.H. 2004. *Learning to Solve Problems: an Instructional Design Guide.* San Fransisco: Pfeiffer, John Wiley & Sons, Inc.

Joyce. B., Weil. M., Calhoun. E. 1980. *Models of Teaching Second Edition.* Prentice Hall: New Jersey.

Kim, M.C., Hannafin, M.J. 2011. *Scaffolding 6th Grades Problem Solving in Technology-Enhanced Science Classroom: A Qualitative Case Study*. Instructional Science Journal. no. 39, pp. 255-282.

Klein, S.B. 1996. *Learning Principples and Applications*. New York: McGraw Hill Inc.

Loibl, K., Rummel, N. 2014. *The Impact of Guidance During Problem Solving Prior to Instruction on Students Invention and Learning Outcomes*. Educational Technology Reseach and Development vol. 61. pp. 305-326.

Marzano, R.J., Pickering, D.J. 1997. *Dimension of Learning Teachers Manual*. Virginia: ASCD

Maslow, A.H. 1954. *Motivation and Personality*. Harper & Row Publisher, Inc.

Mettes, C.W., Pilot. A., Roosink, H.J. 1981. *Linking Factual and Procedural Knowledge in Solving Science Problems: A Case Study in Thermodynamics Course*. Instructional Science Journal. no. 10, pp. 333-361.

Newby, T.J., Stepich, D.A., Lehman, J.D., Russekk, J.D. 2000. *Instructional Technology Teaching and Learning: Designing Instruction, Integrating Computers, and Using Media.* Mahwah, New Jersey: Prentice-Hall, Inc.

Partin, R.L. 2009. *The Classroom Teacher's Survival Guide Third Edition*. San Francisco: Jossey-Bass.

Polya, G. 1954. *How to Solve It: A New Aspect of Mathematical Method Second Edition*. New Jersey: Princeton University Press.

Reusser, K. 1988. *Problem Solving Beyond the Logic of Things: Contextual Effects on Understanding and Solving Word Problems.* Instructional Science Journal no. 17, pp. 309-338.

Rizi, C.E., Najafipour, M., Haghani, F., Deghan, S. 2013. *The Effect of Using Brainstorming Method on The Academic Achievement of Student in Grade Five Tehran Elementary Schools*. Procedia Social Behaviour Science 83 pp. 230-233.

Romberg, T.A., Carpenter, T.P., Dremock, F. 2005. *Understanding Matemathics and Science Matters*. New Jersey: Lawrence Erlbaum.

Santrock, J.W. 2011. *Educational Psychology Fifth Edition*. New York: McGraw Hill

Schunk. D.H., 2012. *Learning Theories: An Educational Perspective sixth edition*. Boston: Pearson.

Setyosari, P. 2013. *Metode Penelitian Pendidikan dan Pengembangan Edisi Keempat*. Jakarta: Prenadamedia Group.

Slavin. R.E. 2005. *Cooperative Learning: Teori, Riset dan Praktik*. Terjemahan Narulita Yusron. 2015. Bandung: Nusa Media.

Slavin, R.E. 2006. *Educational Psychology Theory and Practice Eighth Edition*. New York: Pearson Education, Inc.

Sugiyono, 2003. *Statistika Untuk Penelitian.* Bandung: CV Alfabeta

Sutman, F.X., Schmukler, J.S., Woodfield, J.D. 2008. *The Science Quest: Using Inquiry/Discovery to Enchance Student Learning, grades 7-12*. San Francisco: Jossey Bass.

Tuckman, B.W. 1999. *Conducting Educational Research 5th Edition.* Orlando: Harcourt Brace College Publishers.

VanGundy, A.B. 2005. *101 Activities for Teaching Creativity an Problem Solving*. San Francisco: Pfeiffer.

Williams, J.D. 2011. *How Science Works: Teaching and Learning in Science Classroom*. New York: Continuum.

Economic Learning Pattern of Coastal Community at Kertasari Village West Sumbawa Regency

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Abstract**:** This article is intended to determine the economic learning pattern of Kertasari community in West Sumbawa regency who works as seaweed grower. The present study employs qualitative approach. The subject of the study is they who work as seaweed grower at Kertasari village West Sumbawa regency. They are treated with snowball sampling which will be discontinued if the data obtained are considered saturated. The study emphasizes on how the economic learning pattern in perceiving internalization process of their owned positive economic values in attempt to improve social welfare. The findings of the study indicate the following things: (1) Community of Kertasari teach the generations to have early entrepreneurial, recognize nature and its phenomena; (2) the internalization process of local economic values mostly occurred in family, where the majority of the seaweed growers are women; (3) For Kertasari community, formal education does not play important role if they abandon their environment and culture; (4) Children in Kertasari are good at assisting their parent to make money; (5) They are used to make money by themselves to meet their needs. It is clear that they have already learned early entrepreneurship.

Keywords**:** economic learning pattern, coastal community, seaweed grower

Indonesia is one of the largest archipelagic states in the world, with the amount of not less than 17,500 islands, with biodiversity which is contained therein. As an archipelago, Indonesia also has advantages that are not owned by other countries. The first advantage is the wealth of the marine natural resources in Indonesia, which consists of two-thirds of its parts, in addition having the second longest coastline in the world after Canada. Naturally, Indonesia inherits the abundant natural resources from the potential of the large water territorial. The next superior resources are human resources, which are in the quantity; the population of Indonesia is the fifth-largest in the world.

Economic behavior in a group of coastal communities in each region cannot be generalized to other coastal communities, as well as socio-economic aspects of life. The studies about the dynamics of the economy of coastal communities are largely focused on the economic aspects of life. This shows that the coastal community is one of the social groups in the society which suffers in poverty very intensively. The results of a study which was conducted by Kusnadi (2007) showed that fishing community is one of the social groups in society which suffer from poverty very intensively, which is caused by complex factors which are interrelated. Coastal communities who live in coastal areas and who are dependent on the sea have a multidimensional problem, so as to solve the existing problem, a comprehensive solution is required instead of partial solutions (Arieta, 2010).

Hartini (2012), who examined the influence of social networks on the transformation of Suradadi fishing community, found that fishing community transformation is a form of desire to improve their living standards. Economics, which is always associated with the welfare of the community, is a driving factor for the society to do transformation in addition to social networks to obtain information which has been widespread. Transformation influences the

society's quality of life, which is the improvement of socio-economic status and education, especially for women. In this case, men do not only need a college education to work, they prefer to make a living as fishermen outside the area, and they use the results for the economic welfare and education of their female relatives. Family economic education in the people of Suradadi community can be seen in the patterns of behavior, lifestyles, different consumption patterns between the families of traditional fishermen and families which transform.

In this latest study, the researcher project several similarities with the situation and the condition of the site/ location where the research is going to be done. Only in this study, there is an emphasis on how the perspective of economic education in seeing the internalization process of positive values of the local economy that they have in an effort to improve the welfare of society. In addition, the researcher projects that the process of internalization of local economic values in Kertasari coastal communities occurs more frequently in family, where most of the seaweed farmers are women.

Women in households play an important role in the process of the internalization of the economic values, where family is the main place of interaction between family members consciously or unconsciously has inherited economic values to their offspring. Children as the next generation of culture get early learning at home, get a role model from parents, and receive training from mother. Mother as a woman educator in the household takes an important role in shaping the character of children. The reason for the feminism assumes that the role of women is very important in the household life and family life.

The role of women in Indonesia in general is so complex with their feminine nature which has its own charm, which makes women tend to have perseverance, accuracy, flexibility and be skillful in doing their tasks. Women are considered to represent the attitude of nature which should be kept low, so that they are more cultured. The attempt to "civilize" women has led the process of production and reproduction of inequality of the relationship between men and women.

Tracing the history of feminism in the early modern period, the production process is organized through the household. The emergence of feminist economics is because the production process is managed through the household, and the married women are not from the aristocracy who had power in the household economy. Feminist economics is a field that includes the study of gender roles in the economy from the perspective of liberators (the wrong assumption about the presence of women). This is the challenge of economic analysis that treats women as the invisible ones, or that serves to strengthen the oppressive situation of women, and to develop innovative research which is designed to overcome the failures. Feminist Economics is trying to show how the topic about women who play an important role in the economy, especially in household.

Various research results that have been already mentioned above show theoretical and empirical issues which should be studied further. One of them is women's role in the fulfillment of family economic needs in the perspective of economic education. Another interesting point of the existing empirical side is that coastal communities are closer to the shackles of weak economic conditions and educational backwardness. It is because of their efforts are affected by natural conditions.

The plan of location of this research is relevant to be conducted in any coastal areas, but it feels more appropriate when it is done in Kertasari village, which theoretically the people are different with characteristics of the coastal communities in general. The difference can be seen that there are almost no people living in Ketasari village who work as fisherman, even if they live on the coast. The next is that they are protecting nature and the environment by teaching their children as future generations to learn more about nature and read the phenomena of nature. For them, formal education is not so important if it should ignore the environment and

culture. Children in Kertasari are also well skilled in their role as 'helper' of their parents to earn a living. They are accustomed to earn their own money to meet their needs. It appears that from early, they had been taught entrepreneurship.

Based on the explanation above, it is interesting to learn about the economic earning patterns in coastal communities in Kertasari Village, West Sumbawa Regency, with people in general work as seaweed farmers, and there is the informal economic learning process in a family environment.

LITERATURE REVIEW

Culture and Local Wisdom Economy

There are three meanings of culture which arise: (1) culture consists of a set of values, norms and assumptions that are agreed and accepted by the group. As the result, culture also plays a role as a direction giver to think, feel and act to groups who follow it. For example, egalitarian values and individual freedom have been central to US culture. It comes in the liberal democratic system, free market economic system, as well as academic culture in universities. The chaos of students in arguing and debating in the discussion, many questions that arise in a lecture in the classroom, and students call their lecturers with the first name, are forms of behavior that is natural and even expected by a student in the context of US society; (2) culture emerged through symbols and artifacts that are the result of human work, such as language, art, and so forth. Starting from a very concrete such as dance, local clothes, until the work that is symbolic and meaningful, such as addresses of Indonesian people who use *Mas, Mbak, Dik, Bang*, with a hierarchical meaning that is not always the same; and (3) culture is formed from the learning outcomes of the socialization process to the new members. The content of culture that is transmitted is the culture considered important because it has proven to be successful to maintain the existence and the superior of groups. Therefore, actually there is no culture that is inborn. So when someone says that the culture of Indonesia "by nature" is lazy and undisciplined, do not believe it. Because it is a result of learning, culture which is perceived to be adaptive can be changed through the learning process as well. Such practice is done by many business organizations which systematically change the organizational culture. The cultural change is carried out systematically through training and the support of complete working systems with the manual book (Panggabean, et al., 2014)

However, when we are talking about the importance of a strong local cultural identity, we will experience the dilemma that "a strong cultural identity could lead to the fanaticism of a group", so it should be distinguished between strong cultural identities with ethnocentrism. A strong cultural identity will contribute a positive thing, in the form of psychological maturity and mental health of individuals, so that we are able to accept realistically the strengths and weaknesses, and we will feel safe and comfortable with the identity we have, we can accept differences and we are also not threatened because of it , (Panggabean, et al, 2014).

Further, Dusselhorp explains that in every classification, there are two kinds of participation that is chosen sharply, however, the grouping into nine bases is not absolute, because it is possible that there is participation in the middle of the two types which are so sharp. Several supporting factors of the participation of society according to Ife (1995, in Nasution, 2009), include: (1) if the activities are considered important, (2) activities that make them better, (3) activities that have value and there is reward for them, (4) it can be done and they are motivated to perform these activities, (5) the structure and process of the activities do not make them eliminated.

Blue Economy

There is a term of *blue economy,* which should be attached to the life of coastal communities. Blue economy in global has long been touted by environmentalists, the idea of blue economy was delivered by Prof. Gunter Pauli in 1994 (Belgium). He delivered it at a meeting of the United Nations (UN), which rose about the future business model.

Blue Economy is a concept that describes the economic activity that does not only reduces waste, but also improves the community economy. It is also interpreted as the Blue Sea Economic, which makes the ocean as an ecosystem that must be protected and optimized in order to improve the economics of the people. The objective of blue economy in Indonesia is to achieve the whole national development by empowering elements which are related to the blue economy and keeping the preservation of sea. (Cahyasari, 2015)

APEC defines blue economy as an economic model that encourages the implementation of sustainable development. The economic model which develops industrialization of marine and fisheries gives emphasis on growth, job creation, and encourage innovation of environmentally friendly technologies. Marine development which is less optimal and tends to be unsustainable is caused by development pattern which is less based on science and technology (IPTEK), it does not apply the approach of supply chain system integrally, less inclusively and environmentally unfriendly. (An-Naf, 2016).

The concept of blue economy above is most appropriate in Indonesia, which has a very wide sea, with abundant economic potential. As a part of the concept of sustainable economic development, blue economy is interpreted as using the resources contained in the sea to the coastal area by prioritizing to maintain and protect the marine ecosystem, in order to continuously provide long-term economic impact.

Household Life skills Education

Life skills education means household economic learning in an effort to meet the economic needs. Life skills are a blend of knowledge and set of skills needed as capital in an independent life. Each child is ultimately expected to work independently and can survive in life. The function of life skills is basically similar with the vocational subject, but it is necessary to change the educational reorientation of subject matter oriented into life skill oriented. (Slamet, 2011)

Life skills education is very likely to occur in families, in which parents become teachers for their children to acquire the knowledge and a set of skills to survive, even to be able to develop the potentials of economic literacy in their offspring.

According to Aziz (2015), the implementation of life skills in the family can be viewed from several things, which are: (1) The objectives and life skills education program, one of the principles in education is anti to deprivation creativity of each individual, which will impact on the failure; (2) The role of parents, strategies that need to be done by parents in the life skills education are necessary, including: (a) problem-based learning; (b) using diverse contexts; (c) considering the diversity of children; (d) empowering each child to learn on their own, be trained to think critically and creatively in seeking, analyzing and using information independently; and (e) learn through collaboration (the sibling group).

RESEARCH METHOD

The approach used in this study is a qualitative approach. A qualitative approach is the right approach to study the social life, in which the researcher collects a variety of data that can

be in the form of transcripts of interviews, field notes, documents, and visual materials (artifacts, photographs, video recordings, and Internet sites), which spans the human experience in their social life. (Saldana, 2011).

The research subjects are treated with *snowball sampling*, which will be discontinued if the data obtained are considered saturated, with the research subjects of public seaweed farmers in Kertasari Village, West Sumbawa Regency. The main technique of collecting data in this study was in-depth interview which is combined with the observation and study of documents. Ekosusilo (2003) says that the form of unstructured interviews or passive interview in this research allows this research to be conducted more personally, which allows extracting information more profusely.

In connection with the main data of this research which were obtained from interviews, the data analysis in this study would use coding which constructs real events into abstract theory. The data analysis in this study is begun since the researcher started collecting preliminary data. To ensure that the credibility of this research results is guaranteed, it is necessary to check the validity of the findings, which can be done for example by: (a) an extension of the time of observation; (b) triangulation; (c) member check; (d) Audit trail; and (e) Expert opinion. (Moleong, 2007).

FINDING AND DISCUSSION

Research Result

Based on the explanation of informants and observation result, findings of this study show the following things: People in Kertasari Village teach their children, as the next generation, early entrepreneurial spirit, to know nature and read the phenomena of nature. Since children were 5 years old, they were included in the activity of seaweed farming, including untying the rope and washing the rope which is used to tie seaweed as a planting medium. Children are also taught to recognize the symptoms of nature, to determine when the planting season is right to produce seaweed with maximum quality and quantity. Children learn about the type of seaweed that is suitable to be planted so that it can overcome the diseases and problems associated with seaweed. They also study the seaweed species based on the characteristics of the land they have. From very early, children are taught about the local wisdom that does not damage the environment, and also the limits on the land they have. Another important finding is that children in Kertasari Village had been taught since childhood how entrepreneurship should be conducted in a cooperative, not competitive entrepreneurship.

The process of internalizing the values of the local economy in coastal communities in Kertasari Village occurs more frequently in families, where most of the seaweed farmers are women. According to informants, their children are taught that all family members need to play a role in improving the economic welfare of the family. At first, almost all of housewives in Kertasari Village did not have a permanent job, but after the widespread of seaweed farming, they decided to farm seaweed as an alternative option to improve the economic condition of their family. Farming seaweed does not need a lot of energy, so that it can be done by housewives on the sidelines of preparing food for family. About 30 percent of seaweed farming job are requiring more power, which is the time of harvest, and drying crops. The job is handed to the men in the household. Outside the time of harvest and drying, the men perform other activities, namely work in coconut and corn plantation, farming and fishing.

Most people of Kertasari Village assume that formal education is not so important, if it should ignore the environment and culture. For some people in Kertasari Village, formal education tends to give theories which are not so useful, so what is needed is vocational

education related to the management of coastal areas, including seaweed farming, aquaculture and agriculture in coastal area. Children in Kertasari Village are skillful in participating as 'helpers' of their parents in earning money. Children from an early age have been taught to be independent with the concept of independence which is in accordance with the characteristics of the coastal communities that depend on nature. The ease to adapt to the changing environment has been implanted, so it will be able to adapt to any changes in the future.

Children in Kertasari Village are accustomed to make their own income to meet their needs. It indicates that they have been taught from an early age about entrepreneurship. When they want to buy snacks, they do not ask for an allowance to parents, but they use the pocket money that they have earned by themselves from the wages they earn while helping planting and harvesting seaweed. They also have been taught to spend the money they have in accordance with the needs with priority scale, though still within the limits of simple concepts.

Discussion

Teaching entrepreneurship from the early age in seaweed farming communities in Kertasari Village is intended to form the personality of the child to be able to compete in the business world. The results of research which was conducted by Sapir, et al (2014) found that the identified entrepreneurial personality forms oneself to be a successful businessman. In addition, the factors of environmental change determine the way they act in managing the business management both with managerial entrepreneurship and entrepreneurship behavior. Entrepreneurial personality which will be instilled by parents in Kertasari community to their children is not simply in a matter of making money, but also to be capable of protecting the environment in which they operate. According to Barlia (2008) specifically the objectives of environmental education are: (a) awareness, which helps children/ students to gain awareness and be sensitive to the environment and its problems as a whole; (b) knowledge, which helps children/ students to acquire the basics of understanding about the function of the environment, the interaction between human with the environment; (c) attitudes, which help children/ students to obtain a set of values and a sense of responsibility to the natural environment, as well as the motivation and commitment to participate in maintaining and developing the environment; (d) skills, which help children/ students to acquire the skills to identify, investigate and contribute to solve and prevent the issues and environmental issues; and (e) participation, which helps children/ students to gain experience, as well as use their knowledge and thinking skills, to solve and prevent the issues and environmental issues.

The internalization process of the local economic values in seaweed farmer community in Kertasari Village occurs within the family environment. Muhadjir (2000) suggested that internalization is the interaction that gives influence on the acceptance or rejection of values, gives more influence on the personality, as well as the evaluative functions which become more dominant. The internalization process is done through five levels, namely: (1) accepting, (2) responding, (3) giving the value, (4) organizing values, and, (5) value characterization.

Internalization Model is one model that can be applied in directed teaching in the realm of affection (the formation of attitudes/ values, basically a model of internalization includes five phases: (1) the stage of value transformation, in this stage educators merely inform the values which are good and bad to students, which is solely in verbal communication; (2) the transaction stage, which is a stage of the value education by doing two-way communication, or interaction between learners with educators that are reciprocal interactions actively. In this stage, educators do not only provide information about values, but they are also involved in the process of accepting and implementing the values; and (3) transinternalization stage, this stage is much deeper which also involves not only the aspect of physical, but it comes to the mental attitude

of a good personality for educators and learners. (Winarno, 2009).

The importance of vocational education in the community of seaweed farmers in Kertasari Village is understandable because the need for skills is beyond the need for understanding the theories that are usually taught to students in the formal school. To maximize the role of vocational education in shaping Indonesian people who have adequate skills, these following efforts are necessary: (1) the material that is taught to students of vocational education should have the knowledge which is needed by learners, and its uniqueness is in accordance with the characteristics of the people in Indonesia ; (2) strengthen the soft skills of students in vocational education through a variety of different ways; (3) Establishing harmony (link and match) with other systems, especially the harmony with the economic system in general or in the world of work particularly; and (4) teach entrepreneurship to the students of vocational education through knowledge, awareness, and real/ actual practices on entrepreneurship. (Slamet, 2011)

Children in seaweed farming communities in Kertasari are skillful in helping their parents to raise their income, which is intended to foster their independence in fulfilling their economic needs. Even though it is only in the form of a simple money management skill. That habituation will lead to the ability to survive and develop in managing a business. There are seven skills that should be controlled by a businessman to be able to survive in the new world order, namely: (1) Critical Thinking and Problem Solving; (2) Collaboration across Networks and Leading by Influence; (3) Agility and Adaptability; (4) Initiative and Entrepreneurialism; (5) Effective Oral and Written Communication; (6) Accessing and Analyzing Information; and (7) Curiosity and Imagination. (Wagner, 2008). Those seven skills should have been invested to children since in the early age, although still in the introduction stage.

CONCLUSION

The pattern of economic learning in seaweed farmer society in Kertasari Village shows a different pattern with other coastal communities, the finding of this research indicates the following things: (1) Kertasari Communities teach children as the next generation to have entrepreneurial spirit since in the early age, to know nature and read the phenomena of nature. Since children were 5 years old, they were included in the seaweed farming activities, which are untying the rope and washing the ropes which are used to tie seaweed as a planting medium. Children are also taught to recognize the symptoms of nature, to determine when the planting season is right to produce seaweed with the maximum quality and quantity; (2) the internalization process of the local economic values in coastal communities of Kertasari Village occurs more frequently in families, where most of the seaweed farmers are women. Their children are taught that all family members need to play a role in improving the economic welfare of the family; (3) for Kertasari community, formal education is not so important if it should ignore the environment and culture. For most people in Kertasari Village, what is needed is the vocational education related to coastal zone management; (4) Children in Kertasari Village are skillful in their role as 'helper' of their parents in earning money, which is intended to foster the independence in meeting economic needs, though only in the form of a simple money management skills; (5) Children in Kertasari are accustomed to make their own income to meet their needs, It appears that they had been taught entrepreneurship since they were in the early age.

REFERENCES

Arieta, S. 2010. Community Based Tourism pada Masyarakat Pesisir. *Jurnal Dinamika*

Maritim, 2 (1).

Aziz, S. 2015. *Pendidikan Keluarga: Konsep dan Strategi*. Yogyakarta: Penerbit Gava Media.

Barlia, L. 2008. Teori Pembelajaran Lingkungan Hidup di Sekolah Dasar. Subang: Royyan Press.

Cahyasari, W. 2015. Model *Blue Economy* di Kawasan Asia Pasifik (Studi Kasus: Penerapan Model *Blue Economy* pada Industri Perikanan Indonesia). *Jum Fisip*, 2 (1), Februari 2015

Ekosusilo. M. 2003. *Sekolah Unggul Berbasis Nilai*. Sukoharjo: Univet Bantara Press.

Hartini, A.M. Pengaruh Jaringan Sosial pada Transformasi Masyarakat Nelayan. *Komunitas*, 4 (2), 178-190.

Kusnadi. 2007. *Jaringan Sosial Sebagai Strategi Adaptasi Masyarakat Nelayan, Studi Kasus di Desa Pesisir Kecamatan Besuki Kabupaten Situbondo Jawa Timur*. Tesis Pusat Pengembangan Penelitian Ilmu-ilmu Sosial Universitas Indonesia.

Moleong, L.J. 2007. *Metodologi Penelitian Kualitatif, Edisi Revisi*. Bandung: PT Remaja Rosdakarya.

Muhadjir, N. 2000. *Ilmu pendidikan dan perubahan sosial: Teori pendidikan pelaku sosial kreatif*. Yogyakarta: Rake Sarasin.

Nasution, Z. 2009. *Solidaritas Sosial dan Partisipasi Masyarakat Desa Transisi: Suatu Tindakan Sosiologis*. Malang: UMM Press.

Panggabean, H., Tjitra, H., Murniati, J. 2014. *Kearifan Lokal Keunggulan Global: Cakrawala Baru di Era Globalisasi*. Jakarta: PT. Elex Media Komputindo.

Saldaña, Johnny. 2011. *Fundamentals of Qualitative Research*. New York: Oxford University Press.

Sapir. 2014. Model Pembelajaran Kewirausahaan Berbasis Kearifan Lokal Untuk Penguatan Ekonomi. *Jurnal Pendidikan dan Pembelajaran*, 21 (1), April 2014

Slamet, P.H. Peran Pendidikan Vokasi dalam Pembangunan Ekonomi. *Cakrawala Pendidikan*, Juni 2011, Th. XXX, No. 2.

Wagner, T. 2008. *The Global Achievement Gap*. New York : Basic Books.

Winarno, A. Pengembangan Model Pembelajaran Internalisasi Nilai-Nilai Kewirausahaan pada Sekolah Menengah Kejuruan di Kota Malang. *Jurnal Ekonomi Bisnis,* 14 (2), Juli 2009.

Andragogy and Its Application in Training Activity of Village-Owned Enterprises Administrators

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Abstract: Administrators of Village-owned enterprises play pivotal role in determining the objection, strength and speed of the development of the village-owned enterprises. Therefore, it requires willingness/ commitment (hard-work, persistence, sacrifice, and sincerity) and capabilities which include management, leadership, creativity, and entrepreneurial capabilities. It is required to improve the capabilities of the administrators in managing the enterprises, one of which is by conducting Education and Training. The present study constitutes as a case study on the implementation of village-owned enterprises management training in Jombang. As for The subject of the study is the administrators of village-owned enterprises involving the training running by the local government cooperated with LPPM of Brawijaya University Malang. The data are collected through interview, observation, and documentation. The analysis technique employed is Miles and Huberman model classifying data analysis into three stages: (1) Data reduction; (2) Data display; and (3) Data verification and conclusion. The result of the study indicates: (1) The training environment is conducive, the facilitators do not dominate the training, they facilitate the training well, trust, respect and appreciate to each other. The participants are given a freedom to find and solve they own problems, appreciate others opinions and maintain the environment well. (2) The performance of the training instructor generally great, they are fun, not patronizing, master the material, and pay more attention to the participants;(3) The learning method is vary so that the participant is enthusiast in following the training; (4) The implementation of andragogy in organizing training material of managing village-owned enterprises emphasizes on the need of the participants and oriented to the practical applicative.

Keywords: andragogy, training, administrators of village-owned enterprises

When it was newly establised, village-owned enterprises usually could not provide adequate remuneration for its administrators, on the other hand, administrators should work hard in pioneering village-owned enterprises in order to make it developed. This dilemmatic condition is what generally makes village-owned enterprises get difficulty in getting the ideal administrators. This is proved from the result of the preliminary study which obtained data as follow: (1) many of human resources who handle village-owned enterprises are inexperienced and have the educational background which is not in accordance with their duties, (2) administrators are still not professional in carrying out their duties, so they are less than the maximum in managing village-owned enterprises. This condition causes the administrators of village-owned enterprises need to improve their capacity to be more professional in managing village-owned enterprises, one of them is holding Education and Training (Diklat).

Some studies that discuss the needs of education and training activities for companies, SMEs, and business entities, including village-owned enterprises, research which was conducted by Collett K & Gale, C (2009) in a study entitled "Training for Rural Development Agricultural and Enterprise Skills for Women Small Holders" state that integrating agricultural

training by company training can help women farmers to manage agricultural production more effectively, so that the results are better and can be marketed easily and gain a lot of profit. Peel Dave (2008) in his research entitled "What Factors Affect Coaching and Mentoring in Small and Medium Sized Enterprises" concluded the need for training and mentoring activities in small and medium enterprises (SMEs) is based on the identification of the problem issues that arise in SMEs to further conduct the most appropriate activity of training and mentoring.

Dublin, TMC (2012) in his research entitled "Entrepreneurship Skills for Growth-Orientated Businesses Institute of Technology Report for the Workshop on Skills Development for SMEs and Entrepreneurship" explained that education and training opportunities play a key role in cultivating future entrepreneurs and in developing the capability of existing entrepreneurs to develop their business to a greater level, and then he refered to the European Commission (2008), which says that the purpose of entrepreneurship education and training should be to develop the entrepreneurial capacity and mindset that benefit the economy, encourage creativity, innovation and entrepreneurship.

Terere, VN (2013) in his research entitled "The Influence of Education and Training in Increasing Employee Performance at Training Center of Technical Agriculture Kalasey", explains that education and training is one important aspect that must be considered in an organization if you want to survive in the business competition nowadays. Many business organizations have failed to achieve the expected goals because the employees are no longer able to work effectively and efficiently.

In essence, education and training programs provided should be adjusted to the needs required by the administrators of village-owned enterprises, which consist of adults who have had a lot of experience, knowledge, skills and ability to overcome the problems of living independently. Adults no longer become the object of socialization that is established and influenced by others to adapt themselves to the wish of the authorities above themselves, but in the perspective of education, adults are more oriented to achieve the stabilization of identity and self-identity to be themselves in the better version. Adult education is not enough just by providing additional knowledge alone, but they have to be equipped with a strong self confidence so that everything that they do will be able to run well. That is why andragogy method is required as a method of learning for adults on education and training in institutions in order to succeed the learning process and the achieve the learning targets for the participants.

This study aims to examine how the application of andragogy on the implementation of education and training for the administrators of village-owned enterprises which is held by the government of Jombang regency in collaboration with LPPM Brawijaya University Malang because Andragogy method is one of the important aspects in education and training.

LITERATURE REVIEW

The Concept of Andragogy (Learning for Adults)

Andragogy comes from the Greek word *andr* which means "adults" and *agogo* which means leading or guiding. Thus, andragogy is defined as the science and art in helping adults to learn. (Arif, 2012). The definition offered by Kartini Kartono which was quoted by Asmin, (2002) in his writings on "the concepts and methods of learning for adults", that: "andragogy is the science of guiding/ educating people; *aner, ndros*: human, *Agoo*: leading, educating. Thus, andragogy is the science of the human forming; which is forming the whole personality, so that humans become independent in the social environment ". Because adults are assumed as individuals who can direct themselves, then the appropriate definition according to the author is an art and knowledge in teaching adults. It is in accordance with the opinion of Asmin (2002)

who says that the most important thing in this process is not the teaching activity of teachers but the learning activity of students. According to Suprijanto (2007), adult education (*andragogy*) is very different with the education of children (*paedagogy*). Education of children is in the form of identification and imitation, whereas adult education is in the form of self-direction to solve the problems arise.

Knowles (1970) confirmed the existence of differences between adults learning with children learning in terms of cognitive development. According to Knowles, there are four main assumptions that distinguish andragogy with pedagogy, namely: (1) The difference in self-concept, adults have an independent self-concept, are not dependent, and self-direction; (2) The difference in experience, adults gather experience which is becoming increasingly widespread rich resources in learning; (3) Readiness to learn, adults want to learn about the problems currently faced in the field and considered relevant; (4) Differences in orientation towards learning activity, adults are oriented to problems and less oriented to the subject. Therefore, andragogy is the science art and to help adults learning. However, both are interrelated with each other.

Basic Philosophy of Andragogy Approach

A.G. Lunandi (1987) explained that there are three points that become the basis or the principle of the philosophy of andragogy approach, namely: (1) Equality; in the learning process, every citizen is learning, including teachers. They are equal/ equivalent to others; (2) Participatory; in this case, the involvement of every learner is not only on the physical and the mind aspects but also the psychological and emotional aspects. This is because the process of learning includes exchanging knowledge, mastery of skills, including the process of awareness and understanding of certain values; (3) Spotan (including the freedom and diversity); in which individuals are free to be themselves with an emphasis on the critical and open attitude.

All of those things above would be difficult to achieve if every learner have no self-awareness as a subject, which is a whole human being. In addition, it is supported by some assumptions that underlie its development. According to Arif (2012), those assumptions are including (1) The self-concept, self-concept in a child is that he/ she is dependent on others. During the process of changing from dependence on others into being able to stand on its own, psychologically the person is deemed to have been grown. Therefore, he/ she requires treatment that is appreciating, especially in decision-making. Adults will reject a learning situation in which the condition is in contrast with their self-concept as an independent person. (Mustaqim, 2001); (2) Experience, the difference of experience between adults and children in the learning leading to consequences in learning. Consequences; *First* is that adults have more opportunities to give contribution to the learning process of others. This is because adults are the rich source of learning. *Second*, adults have richer basic experience related to new experiences. (Learning a new thing has a tendency to take the meaning from old experience). *Third*, adults have had definite mindset and habit; (3) Readiness to learn, adults have a period of readiness to learn, this period as a result of their social role is, not determined by academic force or biological development. It is as the effort of adults to fight for their existence in the community; (4) Orientation to learn, there is fundamental difference regarding to the orientation towards learning between children and adults. For children, education is seen as a process of accumulation of knowledge and skills, which might be expected to be useful in later life, so they tend to have the perspective to postpone the application of what they have learned. Whereas, education for adults is seen as a process to improve their ability to solve life's problems they face, so they tend to have the perspective to apply what they learn as soon as possible, by involving themselves actively in learning activities.

Principles of Adult Learning

Principle of adult learning is a learning process in which the tutor and organizer of education apply the principles of adult learning. There are several principles of adult learning whichshould be understood by professional educators. First, participants learn things because of their needs or problems. Second, participants learn the ways of learning (learning how to learn), which is more important than the acquisition of knowledge. Third, self-evaluation is the most meaningful action in learning activities. Fourth, feeling is important in the learning process, and learning about ways to feel something (learning how to feel) is important as well as learning about ways to think about something (learning how to think). Fifth, learning will occur when the participants are in the atmosphere of mutual respect, appreciate, and support. (Rifa'i, 2003)

Adults Learning Method

There are many adult learning methods that can be applied, but any method which is adopted should consider the factors of facilities and infrastructure which are available to achieve the ultimate goal of learning, namely that participants can have a qualified learning experience. It is a big mistake if in this case, the supervisors unreasonably set a method utilization only because of their own consideration that using the most convenient method, or simply due to the desire to be admired by the participants in the class, or there may be a tendency only to master one certain method.

Correspondingly, according to Lunandi (1987), the learning process is further specified into a continuum of learning process as shown in Figure 1 below:

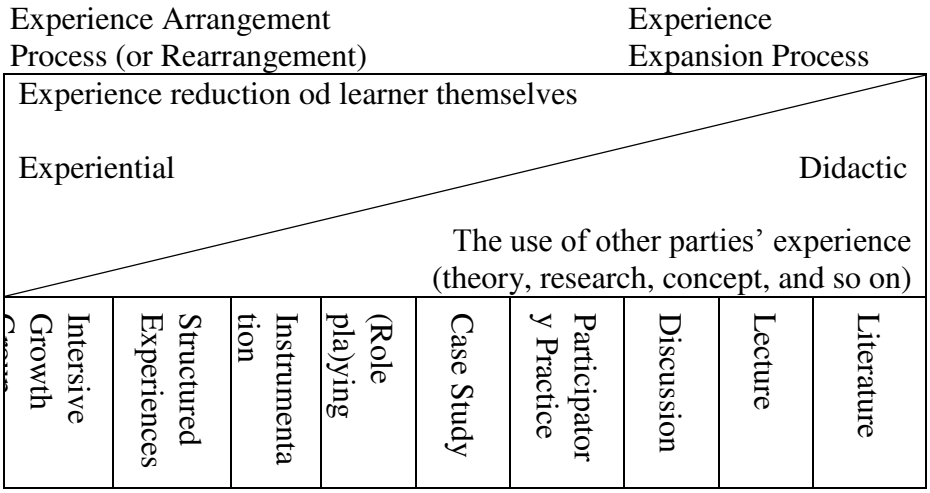


Figure 1: Continuum Of Learning Process
Source: Lunandi (1987)

To elaborate further what is mentioned above, it is briefly elaborated how is the relationship between it and the two ends of the continuum of learning process, namely the arrangement (or rearrangement) of learning experience on one end, and the expansion of the learning experience at the other end, as disclosed by Lunandi (1987) in the following table:

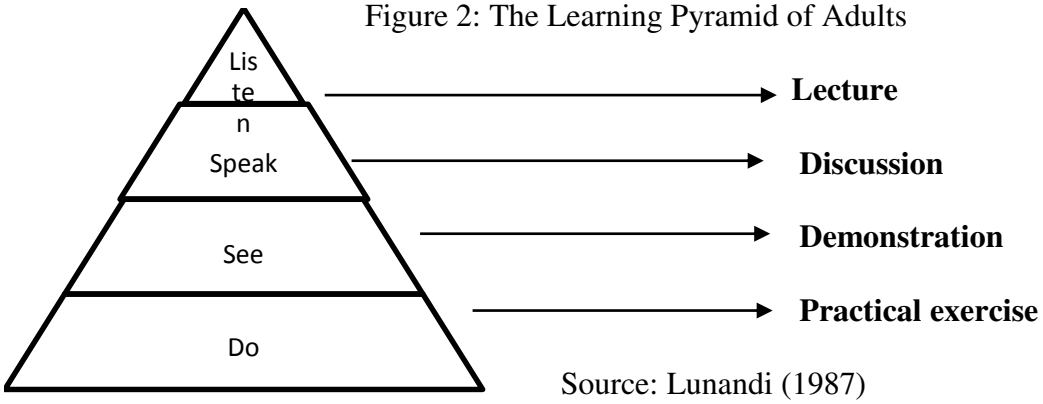
Table 1: Learning Experience Arrangement

No	Aspect	Learning Experience	Learning Experience Expansion
1	Preparation and orientation are musts	Make students reveal their success and failures in the past, prioritize the meaning of the assessment of past experiences to be able to overcome similar problems in the future.	Prioritize problems that cannot be solved by students, but it can be solved after obtaining new materials. Helping students to overcome their inability in exploring new materials
2	Learning atmosphere and speed	Thinking about many things without haste is very influenced by the reaction and the ability of learners.	Interesting and exciting atmosphere is greatly determined by the nature and content of learning.
3	More roles of teachers	Creating an atmosphere, giving meaning to learning experience, stimulating the expression of experience, giving feedback, helping make generalizations	Knowing the problems of students, describing goals of learning, providing data and a new concept, or showing new behavior.
4	More roles of students	Revealing the data about the experience and opinions, analyzing the experience, digging the alternatives and benefits.	Processing the new data and concept, practicing new materials, seeing the application of the new materials on the real situation.
5	Self-dependent success	Free atmosphere of threat, a sense of the needs of learners to find new approaches in solving old problems	The new presentation clarity, students' appreciation toward the teachers, the relevance of of the new material of students' assessment.

Source: Lunadi,1987

The above description indicates some adult education programs, which in its program implementation, it requires a combination of various suitable methods which are appropriate to the circumstances necessary to achieve satisfactory results. The ability of adults in learning can be estimated as follows: (a) 1% through the sense of taste, (b) 1% through the sense of touch, (c) 3% through the sense of smell, (d) 11% through the sense of hearing, and (e) 83% through the sense of sight (Lunandi, 1987). Correspondingly, adults learn more effectively when they can listen and speak. It will be better if they also can see anyway, and it will be more effective if they can also do it. The composition of this capability can be depicted in a pyramid of learning as shown in Figure 2.

Figure 2: The Learning Pyramid of Adults



Source: Lunandi (1987)

From the picture above, it can be seen that the lecture method makes participants can only listen. Learners just speak a little when teachers use a question and answer method. For the method discussion, the proportion of speaking and listening is balance. In a study learning and teaching activity by using the method of demonstration, participants can simultaneously listen, see and speak. At the practical exercises, participants can listen, speak, see and do at once, so it can be expected to be the most effective method to make participants active.

RESEARCH METHOD

This study used a qualitative approach because it is more natural, descriptive and inductive in the form of case study on the implementation of education and training of village-owned enterprises in Jombang Regency. The subjects of the study were the administrators of village-owned enterprises who follow education and training organized by the Government of Jombang Regency, cooperate with LPPM Brawijaya University Malang. The technique of data collection used are interview, observation and documentation, while data analysis used in this research is Miles and Huberman model (1984) in Sugiyono (2011), who classifies the data analysis in three stages, which are: (1) Data reduction is selecting data of the observation, interview, as well as the documentation that is actually relevant and related to the problem to be investigated; (2) Display of data is presenting data in the form of narrative text to explain the application of andragogy in the implementation of education and training for administrators of village-owned enterprises; (3) Verification of the data and conclusion is establishing the truth of the theory, facts, based on the data collected to be processed, analyzed and draw the conclusion.

FINDING AND DISCUSSION

The Implementation of Andragogy in Creating a Conducive Learning Climate In Education and Training of Administrators of Village-owned Enterprises

Learning climate in the implementation of education and training of the administrators village-owned enterprises, based on the observations and interviews to the participants, the atmosphere of learning activity was very conducive. This was because the facilitator did not dominate the learning activities and more facilitate the learning activities that are taking place because the adults in learning activities do not like to be dictated by educators. By this way, learners can find and direct themselves. Likewise, learners in learning activities also should not dominate and master the learning activities, students also have to pay attention to other learners.

Among learners and between learners and educators, they should respect and appreciate each other. In the learning activity of adults, respect and appreciate each other is very important. In the learning activity of adults, such behavior will foster self-confidence of learners who in turn will give rise to a belief in the ability and self-esteem. Therefore, in the learning activities of adults, it is necessary to maintain their honor and respect both among learners, and between learners with educators.

All parties involved in the learning activities trust each other, particularly between educators and learners and among learners. The trust given by educators to learners will increase the self-esteem of learners because the are “humanized”. Related to it, if learners find something, say something, or get an idea which learners think that it is worthy, then the educators should try to reason or understand it without any element of suspicion. Respect and trust the findings or ideas of the learners. It would prejudice the learning activities if the educators suspect the findings of the ideas put forward by learners. In contrary, educators should

be able to make learners trust them, then keep and maintain it. Because once learners lost their trust, it will be difficult to make them believe again.

Training participants are given the freedom to find and solve their own problems. It is very appropriate with the learning activities of adults, in which educators act more as a guide, or the highest ones to provide possibilities or alternatives. The final decision must remain in the hands of students because basically the one that will determine the fate of a person is themselves. Appreciating the differences of opinion is important as each participant adopts a different value with each other, without feeling scared and threatened.

The maintenance of the atmosphere of openness between educators and learners, the disclosure is in the form of openness in expressing themselves and open to listen and understand others from themselves. Therefore, every learners learn not to feel uncomfortable to be frank, for example, when some of them do not understand the problems being studied. They could ask the teachers to explain it again, as both educators and participants appreciate each other's differences.

Physical environment settings, areas used in the education and training activities have pretty good air ventilation and air-conditioning. The paint color of wall is very conducive for learning and teaching activity, tile floors, bright room, as well as the arrangement of the equipment has been adapted to the conditions of adults, there is also a sound system so that the facilitators' voice can be heard. The room, tables, chairs, and equipment are arranged in accordance with the materials and methods to be applied so that the participants are comfortable. Arrangement of the room allows the social interaction among participants because the seating is arranged in a circle with participants consisting of 4-6 people.

The Implementation of Andragogy in Performance of the Facilitators in Education and Training of Administrators of Village-owned Enterprises

The performance of facilitators in the implementation of education and training of administrators of village-owned enterprises in terms of knowledge and experience already exceed those of the participants. A facilitator with knowledge and experience is not enough to make the participants behave in learning and teaching activity in the classroom, but the attitude of the facilitator is also very important. A facilitator is not a "forcer" to influence the participants, but the influence arises because of their involvement in learning activities. To make the change, the facilitator should be positive about the learners. Based on observation of researchers, this attitude has been owned facilitator in education and training of administrators of village-owned enterprises.

The attitude of a facilitator has meaning and a huge influence on the behavior of the learners in the learning activities. Generally, facilitator who is attractive would be more effective than the unattractive facilitator. Pleasant attitude which is shown by the facilitator will be responded positively by the participants, which in turn affect the intensity of learning behavior. Instead, the facilitator displaying unpleasant attitude will be judged negatively by participants, resulting in unpleasant learning activities.

Based on the interviews with the training participants, most of them stated that the facilitators are: (1) very pleasant; (2) humane and do not react mechanically, or understand the problems of learners just intellectually; also feel what is the meaning of people and things for them; they are united with learners; let themselves experience or fused in the experience of the learners; think of the meaning of that experience while pressing the self-assessment, (2) fair, honest, consistent, open; open up themselves; respond sincerely, (3) respect: have a positive view of the participants; communicates warmly, attentive, understanding, accepting others with full appreciation; respect their feelings and experiences. Clarke in Warsono and Hariyanto

(2012) revealed that a good facilitator must have certain personal characteristics that can encourage group members to participate in learning and teaching activity. Those personal characteristics include humility, generous, and patience, which are mingled with understanding, willingness to accept and approve (affirmation); and (4) Open themsleves: accept the openness of others without judging by the size, concept and experience of themselves; actively express themselves to others and are willing to take risks if they make mistakes.

The facilitator is very influential on the learning process of adults. Facilitators go into the classroom with some knowledge and experience. This knowledge and experience should exceed those of the participants. A facilitator with knowledge and experience is not enough to make the participants behave well in the classroom, but the attitude of facilitators is very important. A facilitator is not a "forcer" to give influence to the participants, but the effect arises because of their involvement in learning activities. The principle of participants' active involvement in the learning process is the main point of the process of andragogy. As mentioned by Mel Siberman (2010) in her book entitled "Cara Pelatihan dan Pembelajaran Aktif. Beginning with the question that what makes the training to become active?. When the training is running active, the participants do even more things. They use their brains - study the ideas, solve problems and apply what thet have learned. Active training is high-speed, fun, helpful and binding personally. To make the change, the facilitators should be positive about the learners.

The Implementation of Andragogy in the Learning Methos of Educationa and Training of Village-owned Management

The learning method of education and training applied gives a very broad oppportunity on the development of learners' skill and creativity. Many factors need to be considered in selecting the appropriate method, including: (1) The purpose of training; (2) The nature of the training materials; (3) Participant; (4) The facilitator; (5) Time. and most importantly, (6) The philosophy of the approach. This is important because when using conventional approaches (pedagogical), it will be different from that which use andragogycal approach. In the andragogycal approach, active involvement of the participants is absolute.

The learning method used in Education and Training of Village-owned enterprises is very various because the facilitators use more than one learning method, which are: (1) Varied Lecture Method, lecture method is a method that provides an explanation or gives verbal descriptions unilaterally (by a facilitator) about a particular learning material. The goal is that trainees know and understand the specific training materials by scrutinizing and listening. The role of the instructor in lecture method is very active and dominant, while students just sit and listen to their lecture. This method is used mainly in the initial delivery of materials, and explanations of tasks. Application of this method to be more participatory lecture is combined with question and answer method, discussion, and extracting information. Training participants are given the opportunity to comment on the material presented, ask, and give opinions; (2) Discussion method, discussion method is a method that is usually used in education and training as they can participate actively to contribute ideas and thoughts in discussion. If in the lecture method there is only one-way communication, then the method of discussion is going in many directions. Thus, basically the method of discussion is expressing opinions and ideas of deliberation to reach a consensus. In this discussion, participants of discussion face a number of problems that may be proffered by the instructors, and some of them are requested from participants of the training on the topics that will be discussed together. The purpose of this discussion is seeking the problem solving, from which various answers appear. One or two logical and effective answers are chosen from a variety of other answers to reach consensus/ agreement. In the implementation of this method, the training participants are more dominant in conveying information, the process of problem-solving and decision-making of problem solving election. The role of supervisor as a facilitator in the

process of training; (3) Demonstration method, which is the method of learning in which the instructor demonstrates how to make WEB of village-owned enterprises in detail, while the participants see the steps undertaken by instructors, and then practice it on their own, accompanied by their instructor. If there are problems in practice, learners can directly question and ask to be assisted in the making; (4) The method of task administration, participants are given the task to create WEB of each village-owned enterprises with accompanied by a facilitator; dan (5) Case Study Method, case study is conducted by each of the participants by revealing the problems face in his their village-owned enterprises respectively. The problems discovered are discussed in the group to find a solution. The result of group work is discussed with the members of other groups to refine the analysis of problems and input in selecting effective problem solving.

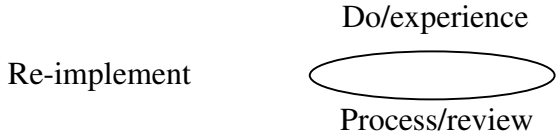
Andragogy approach in the process is widely implemented in adults education. Determination of method election should take into account the objectives to be achieved, which in this case refers to the outline of the teaching program which is divided into two types: (1) The process design to encourage adults to be able to organize and populate a new experience by guided by the past that had been experienced , so as to give new insights to each individual to take advantage of what they already knew; (2) The learning process is designed for the purpose of increasing the transfer of new knowledge, new experiences, new skills to encourage each individual of adults to be able to achieve as much as possible the desired knowledge, what the needs and skills required.

In the implementation, the learning process above can be done by various methods variously, which are: question and answer or dialogue, observation, role play, group discussions, and other methods that can be uplifting spontaneity spirit so that all learners can take an active role with based on critical awareness about themselves as rational subjects who will achieve the highest existence above all other creatures through the use of reasoning to find, analyze and also understand the critical knowledge and not just to adapt, as done by mindless creatures, which are animal. (Dzakiri, 2000). Besides their orientation to learn which more emphasize the development of potential and fulfillment of the needs will be the starting point of a process of learning. (Asmin, 2002).

The Implementation of Andragogy in the Material Organization of Education and Training Management

In establishing the material of the training of village-owned enterprises administrators, it gives more emphasis on the needs of training participants and oriented on practical applicative. The determination of training material is carried out by the agency which is responsible for the program, in this case is LPPM Brawijaya University, in collaboration with Jombang Regency. The material of education and training is adjusted to the needs of village-owned enterprises administrators. The material provided is about the management of village-owned enterprises, Preparation of Financial Statements and the production of WEB of village-owned enterprises to facilitate village-owned enterprises in cooperating between one village-owned enterprise and other, mainly on the marketing activity of products managed by village-owned enterprises.

The assumption used in the approach of andragogy state that students are adults who tend to be self-directed (independent), due to many experiences that have been gained, have implications in the procurement of material developed through a learning process, that is a facility to exchange experience among learners. Lektur (2002) explains that such process has the principle of stucture experience, structured experience is by using cycled as follows:



In choosing the subject matter in the education of adults using the criteria in which the material should be interesting, understandable, useful, be able to help achieve the goal of education, and in accordance with the subject that has been set.

CONCLUSION

First, the learning climate of the implementation of education and training of village-owned management, based on the result of observations and interviews to the participants, the atmosphere of learning activity was very conducive, this was because the facilitator did not dominate the learning activities and more facilitated the ongoing learning activities, among learners and between learners with educators respect and appreciate each other. All parties involved in the learning activities trust each other, particularly between educators with learners and among learners.

Training participants were given the freedom to find and solve their own problems, it is very suitable with the learning activities of adults, in which educators act more as a guide, or the highest ones who provide possibilities or alternatives. However, the final decision must remain in the hands of students because basically the one that will determine the fate of a person is themselves. Appreciating different opinion and maintaining the atmosphere of openness between educators and learners, the disclosure is in the form of openness in expressing themselves and open to listen and understand others. Physical environment settings, the place used in the training activities had pretty good air ventilation and air-conditioning. The paint color of wall is very conducive for learning and teaching activity, tile floors, bright room as well as the arrangement of the equipment has been adapted to the conditions of adults, there is a sound system so that the facilitators' voice can be heard. The arrangement of the room, tables, chairs and equipment is in accordance with the materials and methods which are applied so that the participants are comfortable.

Second, based on the interviews to training participants, most of them stated that there are facilitators who are: (1) very pleasant; (2) humane and did not react mechanically or understand the problems of learners just intellectually; to feel what is the meaning of people and things for them; united with learners; let themselves experience or be fused in the experience of the learners; think of the meaning of that experience while pressing the self-assessment, (2) fair, honest, consistent, open; open up themselves; respond sincerely, (3) respect: have a positive view of the participants; communicate warmly, attentive, understanding, accept others with full appreciation; respect their feelings and experiences.

Third, the method selection of learning method of education and training by using andragogy approach, the active involvement of the participants is absolute. The learning method used in the education and training in the management of village-owned enterprises was very varied because facilitators used more than one method of learning, which is varied lecture method, discussions, demonstrations, assignments and case studies. In the lecture, participants only listen. They only speak in question and answer method. For a discussion method, the portion of speaking and listening is balance. In a learning using the method of demonstration, participants can hear, see and speak at the same time. At giving assignment in the form of

practical exercises and case studies, participants can hear, speak, see and do at once, so it can be expected to be the most effective method to make participants active.

Fourth, the application of andragogy in organizing materials of education and training of village-owned enterprises management give more emphasis on the needs of the training participants and it is oriented on practial applicative. It is based on the assumptions used in andragogy approach stating that the participants are adults who tend to be able to direct themselves (independet) because of much experience that has been gained, so that the material should be interesting, useful and understandable.

REFERENCES

Achmad R 2003. *Desain Sistematik Pembelajaran Orang Dewasa*. Semarang:Universitas Negeri Semarang.

Arif, Z. 2012. *Andragogy*, Bandung: CV. Angkasa

Asmin. 2002. *Jurnal Pendidikan dan Kebudayaan,* edisi 034 Januari, Jakarta, Balitbang Dikdasmen Ditjen Irjen.

Collett K. & Gale, C. 2009. Training for Rural Development: Agricultural and Enterprise Skills for Women Smallholders. *Produced by: City & Guilds Centre for Skills Development, 24-30 West Smithfield, London, EC1A 9DD.*

Dublin, T.M.C. 2012. *Entrepreneurship Skills for Growth-Orientated Businesses Institute of Technology Report for the Workshop on Skills Development for SMEs and Entrepreneurship*, Copenhagen: OECD.

Dzakiri, M.H. 2000. *Paulo Freire, Islam pembebasan,* Jakarta, Penerbit Djambatan dan Penerbit Pena.

H. Suprijanto. 2007. *Pendidikan Orang Dewasa: dari Teori hingga Aplikasi*. Jakarta: PT. Bumi Aksara.

Knowles, M.S. 1970. *The modern practicsof adult education, andragogy Versus pedagogi. New York : Association Press.*

LEKTUR. 2002. "Pendidikan Partisipatoris", *Jurnal Ilmiah Pendidikan Islam Seri XVII*, Cirebon: STAIN.

Lunandi, A. G. 1987. *Pendidikan orang dewasa*. Jakarta: Gramedia.

Mustaqim, M. 2001. *Psikilogi Pendidikan.* Yogyakarta: Pustaka Pelajar dan Fakultas Tarbiyah IAIN Walisongo.

Peel D. 2008. What Factors Affect Coaching and Mentoring in Small and Medium Sized Enterprises. *International Journal of Evidence Based Coaching and Mentoring* 6 (2)

Silberman, M. 2010. *Cara Pelatihan dan Pembelajaran Aktif* , Jakarta: PT Indeks.

Sugiyono. 2011. Metode Penelitian Kuantitatif, Kualitatif, dan R & D.Bandung: Alfabeta.

Turere V.N. 2013. Pengaruh Pendidikan dan Pelatihan Terhadap Peningkatan Kinerja Karyawan Pada Balai Pelatihan Teknis Pertanian Kalassey. *Jurnal EMBA* 1 (3), 10 – 19.

Warsono dan Hariyanto. 2012. *Pembelajaran Aktif, Teori dan Asesmen*, Bandung: PT. Remaja Rosdakarta.

The Assessment of Visual Thinking of the Concept of Mat1hematics

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Abstract: The learning of calculus movement emphasizes the use of multiple representations in the presentation of concepts, that concepts should be represented numerically, algebraically, graphically and verbally wherever possible, so that students understand connections between different representations and develop deeper and more robust understanding of the concepts. Visualization is a critical aspect of mathematical thinking, understanding and reasoning. Therefore, it is necessary to consider assessment instrument to support the process of visual thinking. The purpose of this study is to describing assessment characteristics to support student's visual thinking of mathematics, especially the concept of integral. Data sources of this study are student teachers at the fifth semester. The data are in the form of test and interview result. The finding of this study show that there are three characteristics of assessment that can support visual thinking, which are (1) non-visual (NV) means that the assessment tool should make the student inability solve the problem using algebra and geometry, inability to represent and interpret the problem graphically (2) local-visual (LV) means that the assessment tool should be able to measure the ability of students to learn algebra and geometry as an alternative language, capable of drawing and using diagrams in solving the problem (3) global-visual (GV) means an assessment instrument must contain the student is able to understand the interrelationships between representations of concepts learned by the students.

Keywords: assessment, visual thinking, mathematics.

Visualization has been an area of interest for a number of researchers concerned with mathematics education. Many researchers emphasize the importance of visualization and visual reasoning for learning mathematics, and visualization is a fundamental aspect in understanding students' construction of mathematical concepts (Chih-Hsien Huang, 2013: 111)

Some studies show the importance of visual thinking. (Hartono, 2010: 1) tells us that Plato's analogy of memory as a block of wax and shaping perceptions of mold on it. Aristotle explained that the mold is in the form of 'image' and the language is the representation. Nemirovsky & Noblemany (1997:1) researchers emphasize the importance of visualization and visual reasoning for learning mathematics. In other words, the researchers suggest the importance of visualization and visual reasoning to study mathematics. Arcavi (2003) defines the visual thinking as the ability, the process and the creation, interpretation, use and the idea of images, pictures and diagrams in the mind, on paper or using technological tools, with the aim of describing and communicating information and ideas, develop previous ideas and increase understanding. Visual thinking is also as the ability to represent, transform, generalize, communicate, document and reflect the objects or objects into visual information. Furthermore, the visual thinking as the ability to change the information of all types into images, graphics or other forms of information that can help communicates.

Visual thinking helps assure correctness proof of a theorem. (Tall, 1991: 2) describes it as follows:

> *In mathematical research proof is but the last stage of the process. Before there can be proof, there must be an idea of what theorems are worth proving, or what theorems*

might be true. This exploratory stage of mathematical thinking benefits from building up an overall picture of relationships and such a picture can benefits from visualization.

Visualization is a critical aspect of mathematical thinking, understanding, and reasoning. Researchers argue that visual thinking is an alternative and powerful resource for students to do mathematics; it is different from linguistic, logic-propositional thinking and manipulation of symbols. A growing body of research supports the assertion that understanding of mathematics is strongly related to the ability to use visual and analytic thinking. Researchers contend that in order for students to construct a rich understanding of mathematical concepts, both visual and analytic reasoning must be present and integrated (Aspinwall, 2002: 434-440).

According to Duval (Duval, 2006: 103-131) visualization can be produced in any register of representation as it refers to processes linked to the visual perception and then to vision. Zimmerman and Cunningham (1991: 127-138) contended that the use of the term "visualization" concerned a concept or problem involving visualizing. Nemirovsky and Noble (1997: 595-610) defined visualization is a tool that penetrated or travelled back and forth between external representations and learners' mental perceptions. Goldin (1998: 137-165) and Hitt (1998: 1-7) both emphasized the relationships among representation, mathematical visualization, and conceptual understanding. Dreyfus (1991: 33-48) contended that what students "see" in a representation would be linked to their conceptual structure, and further proposed that visualization should be regarded as a learning tool. Noss, Healy, and Hoyles (1997: 203-233) described mathematical thinking as being characterized by the ability to move freely between the visual and the symbolic, the formal and the informal, the analytical and the perceptual, and the rigorous and the intuitive.

Visualization involves both external and internal representations (or images), and thus following Presmeg (2006: 205-235) we define visualization as processes involved in constructing and transforming both visual images and all of the representations of a spatial nature that may be used in drawing figures or constructing or manipulating them with pencil and paper. This definition emphasizes that in mathematical thinking and problem solving, an appropriate graph can be drawn to represent the mathematical concept or question, and that the graph can be used to understand a concept or as a problem-solving tool. In this study, we investigated the visual images that students used to resolve specific problems and how they managed given visualizations.

This study stands apart from other research on learning calculus, because it not only extends the understanding of students' difficulties and strengths associated with visualization, but also identifies the types of visual image they utilized while solve integral problems.

METHODOLOGY

Participants and Instruments

The 20fifth semester teachers of mathematics students who participated in this study were enrolled at IAIN Tulungagung. The data are in the form of test and interview result. The questionnaire comprised five problems indefinite integral (Figure 1), some of which were referenced from other studies.

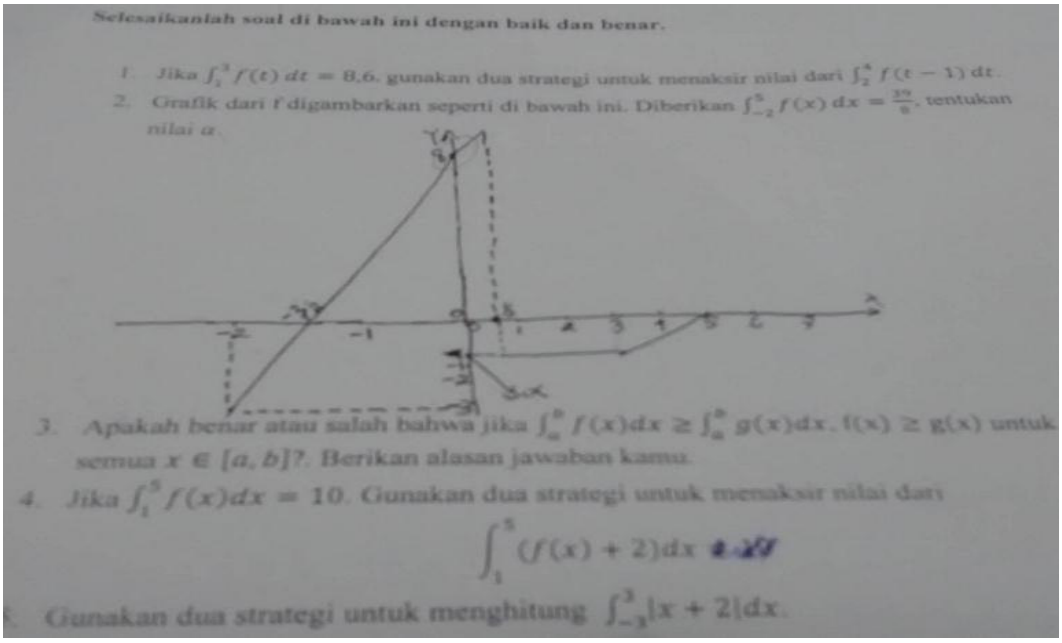

Figure 1 Problems in Definite Integral

The results of the questionnaire necessitated further investigation into the visual thinking of the students. The clinical interviews were carried out after the answers to the problems had been analyzed (Goldin, 2000: 517-545) . Each interview lasted about 20-30 minutes and was video-and audio-taped. In order to prepare the script for the interview, the author analyzed the written answers focused on to how the students seemed to use and coordinate the different mathematical representations needed. During each interview the students were asked to think aloud, while they were solving the tasks so that the author could describe their responses and strategies, as well as make inferences about their mental processes and images.

The analysis results indicated that the visual thinking distribution of 30 students could be categorized into five competencies and three levels. In the non-visual (NV) level, one tends to focus on a single visual image, overlooking other representations of a similar nature. In the local visual (LV) level, one can perceive and confirm the relationships among various visual images; however, these items may still appear independent of each other. In the global-visual (GV) level, one can use the relationships to construct a consistent structure based on the relationships among various visual images.

RESULTS AND DISCUSSION

According to the data analysis, the author identified five competencies of visual thinking relating to the concept of definite integral and, then, classified the visual thinking of the students into three levels. Because students' visual thinking of the definite integral could be reasonably understood regarding the three levels, the author evaluated the responses to the task interviews, searching for evidence of the NV, LV and GV levels.

Visual Thinking of the Concept of Definite Integral in the NV Level

According to the data analysis the author categorized nine students into this group. One of the visual thinking characteristics shared by these students was that they could not recognize the relationship between the area and integral, they could not understand algebra and geometry

as alternative languages, they could not extract specific information from diagrams, they could not represent and interpret problem (or concept) graphically, they could not draw and use diagrams as an aid in problem-solving, they could not understand mathematical transformations visually. These students could only process representations within a representation system, and the representations used were influenced by the representation format employed for problems. Additionally, they preferred solving problems using symbolic representations.

Consider the following excerpt from the interview conducted with Shafiq, who has a collection of rules that enable him to integrate fundamental functions, such as the integrals in Tasks 1 and 2. The students could solve a number of problems by simply applying rules that had been memorized and in some cases, incorrectly remembered. However, he could not solve the problems using graphical representations. As the figure below show the results of the completion of the number 1.

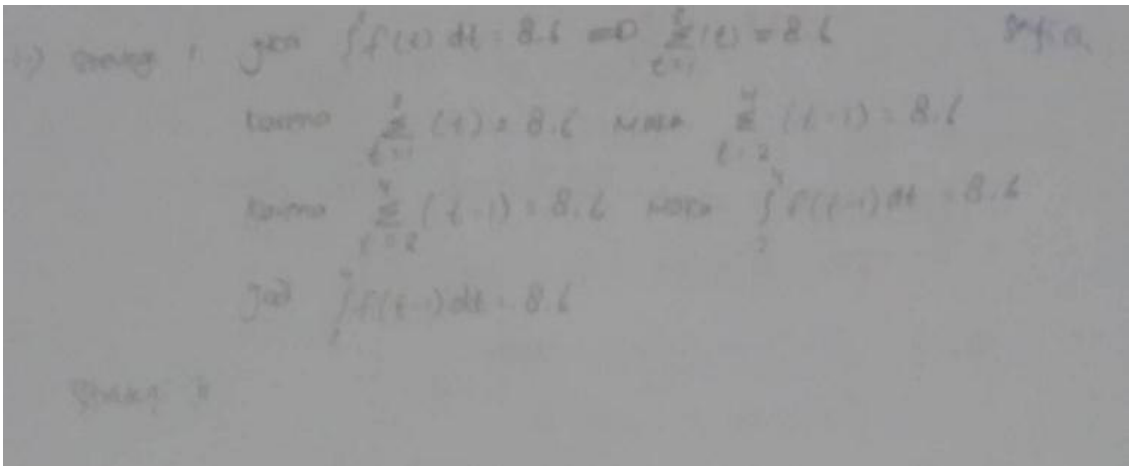

Figure 2 Safiq's Presentation for Task 1

Visual Thinking of the Concept of Definite Integral in the LV Level

The next level of visual thinking of the concept of definite integral is the local-visual level. According to the data analysis the author categorized seven students into this group. One of the visual thinking characteristics shared by these students was that they could recognize the relationship between the area and integral, they could demonstrated the competency completely to understand algebra and geometry as alternative languages, they could demonstrated the competency completely to extract specific information from diagrams, they could not demonstrated the competency fully to represent and interpret problem(or concept)graphically, they could not demonstrated the competency fully to draw and use diagrams as an aid in problem-solving, they could demonstrated the competency completely to understand mathematical transformations visually. These students understood the relationships between representation systems and could change or transfer the representations in some of the representation systems. However, these students had difficulty coordinating these relationships. For example, Miftah was one of the students in this group. She could use correct symbolic representations to perform mathematical thinking and could manipulate the area using graphical representations according to the changes in integral symbols in Tasks 1 and 4. As shown below

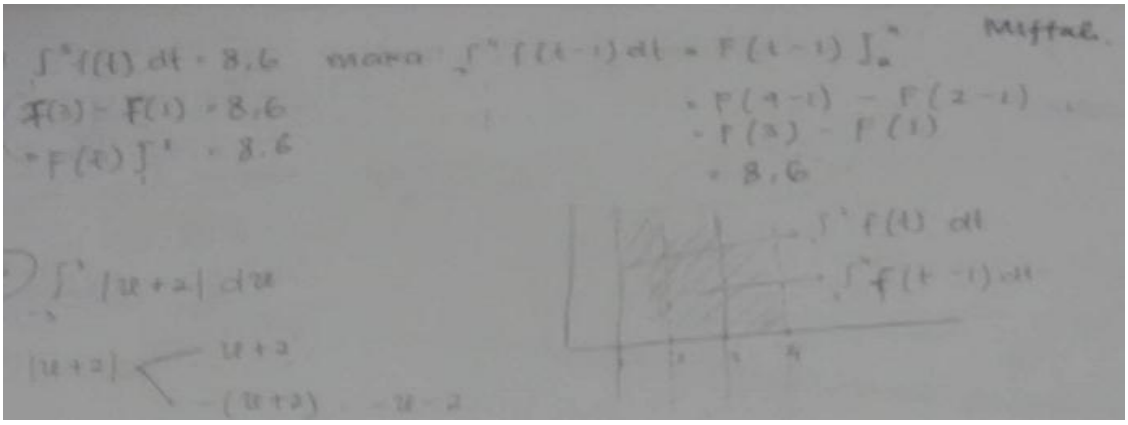

Figure 3. Miftah's Presentation for Task 1

Visual Thinking of the Concept of Definite Integral in the GV Level

Four students were categorized into this group. These students could recognize the relationships among representation systems and convert representations between representation systems. In Tasks 1, 4 and 5, Yanuar used the correct symbolic representations to perform mathematical thinking. She also manipulated the area using graphical representations according to the changes in integral symbols. They could demonstrated the competency completely to understand algebra and geometry as alternative languages, they could demonstrated the competency completely to extract specific information from diagrams, they could demonstrated the competency completely to represent and interpret problem(or concept)graphically, they could demonstrated the competency completely to draw and use diagrams as an aid in problem-solving, they could demonstrated the competency completely to understand mathematical transformations visually. For example, Yanuar was one of the students in this group. She could use correct symbolic representations to perform mathematical thinking and could manipulate the area using graphical representations according to the changes in integral symbols. As shown below

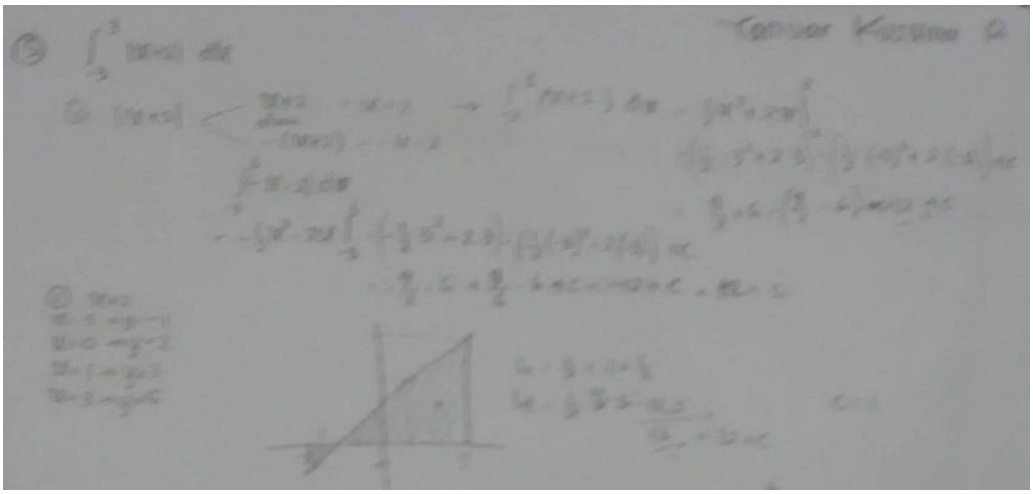

Figure 4 Miftah's Presentation for Task 4

CONCLUSION

Visual thinking involves the capacity to make connections between both mathematical objects and concepts and mathematics and the physical world. According the data analysis results show that the main obstacles preventing students from freely shifting within the representation system for the concept of definite integrals were that they did not have the ability involves visualizing the abstracted relationships and non-figural information into visual representations and imagery. The development of visualization ability, which may influence the relationship between graphical representations and the other representations, increases the performance of solving definite integral problems.

The students (1) non-visual (NV) means that the assessment tool should make the student inability solve the problem using algebra and geometry, inability to represent and interpret the problem graphically (2) local-visual (LV) means that the assessment tool should be able to measure the ability of students to learn algebra and geometry as an alternative language, capable of drawing and using diagrams in solving the problem (3) global-visual (GV) means an assessment instrument must contain the student is able to understand the interrelationships between representations of concepts learned by the students.

REFERENCES

Arcavi, A. 2003. The role of visual representations in the learning of mathematics. *Educational Studies in Mathematics*, 52, 215-241.

Dreyfus, T. 1991. On the status of visual reasoning in mathematics and mathematics education. In *Proceedings of the Fifteenth Annual Meeting of the International Group for the Psychology of Mathematics Education,* Assisi, Italy, 33-48.

Duval, R. 2006. A cognitive analysis of problems of comprehension in a learning of mathematics." *Educational Studies in Mathematics*, 61(1). 103-131.

Goldin, G. 1998. Representational systems, learning, and problem solving in mathematics. *Journal of mathematical behavior*, 17 (2). 137-165.

Goldin, G. 2000. *Handbook of Research Design in Mathematics and Science Education*, Erlbaum, Mahwah, New Jersey, 517- 545

Hartono. 2010. *Mental Imagery: tinjauan dari segi filsafat, Ilmu-ilmu Kognitif dan Neurologis.* Surabaya: UNESA University Press.

Hitt, F. 1998. "Working Group on Representations and MathematicsVisualization. In *Proceedings of the Twentieth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, USA. Columbus, 17.

Huang, Chih-Hsien. 2013. Engineering Students' Visual Thinking Of The Concept Of Definite Integral. Global Journal of Engineering Education Volume 15, Number 2,: 111-117

Nemirovsky & Noblemany . 1997. *On Mathematical Visualization and the Place Where we Live.*. Kluwer Academic Publisher, Printed in The Netherlands.

Nemirovsky, R., and Noble, T. 1997. "On Mathematical Visualisation and the Place Where We Live." *Educational Studies in Mathematics* 33(2). 595-610.

Noss, R., Healy, L. and Hoyles, C. 1997. "The Construction of Mathematical Meanings: Connecting the Visual with the Symbolic." *Educational Studies in Mathematics*, 33(2). 203-33.

Presmeg, N.C. 2006. *Handbook of Research on the Psychology of Mathematics Education: Past, Present and Future*. Sense Publishers, Rotterdam 205-235

Tall. 1991. *Intuition and Rigour: The Role of Visualization in The Calculus. Visualization in Mathematics.* Notes No. 19, 105-119.

Think-talk-write Strategy to Develop Fifth Grade Students' Mathematical Communication Ability in Comparison

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This Didactical Design Research which motivated by the curiosity of researchers towards the students' obstacles in communicating mathematical thinking within oral and written. Students' mathematical communication is one of the demands in curriculum. Communication skill should be the first one for students. This research aimed developed didactical design about students' mathematical communication by using think-talk-write strategy. This research involved mathematic and language lecturers, university students, primary school teacher, and primary school students. In this research the topic was about comparison at fifth grade with theme life in harmony'. This research resulted in didactical design of mathematical communication which could overcome fifth grade students' learning obstacle in comparison.

Keyword: didactical design, didactical design research, mathematical communication, mathematical comparison.

Based on the "21st Century Learning Partnership Framework" (BNSP 2010, pp. 44), there are some competencies or skills that must be possessed by human resources 21st century, one of the competencies that must be mastered by the people is ability to communicate and work together (communication and collaboration Skills).

Communicating be one of the skills that must be possessed by the 21st century for human resources, It is expected that the 21st century human resources able to communicate and collaborate effectively with all parties in the global interaction.

Communication in the learning of mathematics was known as mathematical communication. Communication skills are one of the competencies contained in the curriculum. For example basic competence for fifth grade students was on the theme of events in life. A complete basic competencies 4.1 restate the sentence itself, stating the sentence math, and select a sentence precise mathematical in solving problems related to the concept of comparison, the scale and the relationship between the quantity associated with everyday activities at home, school, or playground as well as checking the truth.

Before being able to communicate in written form, students must understand the concept of the material. Then they understand the concepts acquired through the thinking process of the student in learning. Once you understand the concept, students are able to communicate ideas to others. Therefore the learning is able to pack all the activity of thinking and communicating the results of their thinking. Basic competence is reached when the indicator below can be controlled by students, that is:

1. Able to express the concept of comparative into mathematical form of the sentence.
2. Capable of stating the problem in the form of comparisons to mathematical sentence.
3. Be able to communicate about the completion of the comparison.
4. Able to communicate the results of the settlement of a matter of comparison in the form of journal writing.
5. Able to give an opinion on his strategies used in solving the comparison.

Mathematical communication barriers experienced by students of Fifth grade students at SDN Galunggung and SDN Cibeureum II in Tasikmalaya that students have not been able to compile and link their mathematical thinking through communication; communicate their mathematical thinking logically and clearly to his friends and teachers, analyze and assess thinking mathematics and strategies used by other people. Results of preliminary studies, detailed as follows:

1. 83.11% of students can express and illustrate mathematical ideas into mathematical form of the sentence.
2. 24, 13% of students can communicate about the settlement comparison.
3. 26, 32% of students can communicate the results of the settlement of a matter of comparison in the form of a journal.
4. 34, 21% give an opinion on his strategies used in solving the comparison.

Overall the students have not met the minimum completeness 80% of the total. According to Gagne (in Sanjaya, 2013, pp. 66) "External factors of student learning comes from outside the individual students themselves, namely with regard to the provision of environmental conditions or designed so that students learn". Thus the need to design learning designed to improve students' mathematical communication with appropriate learning strategies through research to be conducted. So the researchers think talk of lifting the title write strategy for the development of students' mathematical communication skills in comparative material in fifth grade elementary school. Specifically, we propose the following issues:

1. How to design a didactic development of mathematical communication that can overcome the barriers of communication in fifth grade elementary school in material comparisons?
2. How the implementation of a didactic design development of mathematical communication in fifth grade elementary school in material comparisons?

This research aimed to develop a didactic design communication students' mathematical development by using a strategy talk think write (TTW). In addition to the general objectives, specific objectives of this study are as follows:

1. Develop mathematical communication didactic design that can overcome communication barriers mathematical fifth grade students of elementary school material comparisons.
2. Know the implementation of didactic development of mathematical communication design students of fifth grade elementary school material comparisons.

LITERATURE AND FRAMEWORK FOR THINKING

Mathematically Communication Students

Mathematical communication is one important part of the learning of mathematics. In fact, mathematical communication is not only important in the learning of mathematics, but also in the entire study. This is justified by Wichelt & Kearney (2009, pp.6) which states that:

"Communication is not just vital for the mathematics classroom, but in all classrooms. All educators know the importance of being Able to communicate with students, to have students communicate with one another, and to have students understand what they are communicating about ".

Mathematical communication is the ability to express mathematical ideas both orally and in writing. Mathematical communication is the ability or the student's skills in expressing ideas or mathematical ideas and interprets them in writing in solving the problem "(NCTM in E Reilly, 2007, pp. 23). The main objective was to ensure that students' mathematical

communications are able to communicate accurately precise, systematic and efficient trained through math, is expected to become a habit of the students in their everyday lives. Students' mathematical communication skills can be developed through various means. Janvier (Nisa, 2012, p. 15) suggests one form to improve communication skills, which provide greater opportunities for learners to develop and integrate communication skills through a variety of external representation, such as verbal descriptions, graphics (visual), and table games formula.

Thus, NCTM (2000, p. 63) to establish the importance of communication in primary school mathematics instruction should provide an opportunity for students to:

a. Compile and link their mathematical thinking through communication.
b. Communicate their mathematical thinking logically and clearly to his friends, teachers, and others.
c. Analyze and assess the mathematical thinking and strategies used by other people.
d. Using the language of mathematics to express mathematical ideas correctly.

Think Talk Write Strategy

This strategy was introduced by Huinker and Laughlin (in Wahidah and Yuwono, 2013, pp. 14) it is basically built through activities such as think, talk, and writes ". The flowing strategy starts from the involvement of students in thinking or talking to himself after the reading process, then speak and share ideas *(sharing)* with his friend before writing.

The first phase is the thinking *(think).* There are three basic views about thinking, namely (1) thinking is cognitive, that arise internally in mind but can be estimated from the behavior, (2) thinking is a process that involves some manipulation of knowledge in cognitive systems, and (3) thinking directed and result in behavior that is directed at solving the problem or the solution.

The next step is to talk *(talk).* At this stage students will communicate using words and language that they understand. Phase communication *(talk)* on the strategy aims to enable students to skillfully speak or express opinions. A discussion or dialogue happens in groups of 3-5 students in each group. This activity can help solve a math problem because students are given the opportunity to discuss and exchange ideas to find a solution of mathematical problem solving.

Lastly is the act of writing. In general, Sipka (in Mahmudi, 2009, pp. 2) states that: "Writing can be categorized as a write informal and formal writing". Informal writing e.g. notes in class; autobiographic mathematics; journaling; and a letter. While the category of formal writing are: proof, resume journals, articles, research proposals, and modules. Informal writing focuses more on the idea of writing the truth. While in formal writing, but the truth of ideas, the quality of writing is also considered. Write strategy in this phase the students will write informally in the form of a journal. Journal contains about students' writing as a form of reflection of learning outcomes. Journal also is an effort to make the students write unconsciously.

The role of teachers in the effective use of learning strategies Think Talk Write Yamin and Ansari (in Kurniasih, 2009, pp. 50) is as follows:

1. Asking questions and tasks that bring engagement and challenge each student to think.
2. Listen to students' ideas carefully.
3. Asking the students to express ideas orally and in writing.
4. Decide what is dug up and brought into the discussion.
5. Decide when to give information, clarify issues, using the model, guide and let students struggling in trouble.

6. Monitor and assess students' participation in the discussion and decide when and how to encourage each student to take part.

Talk think write current strategy implementation comes with a few other teaching methods, including, among others; lectures, discussions, question and answer, and others. Collaboration between methods are aimed at making the strategy think talk as write a unity that a whole to set up a learning path from thinking activity, speaking and writing.

RESEARCH METHODS

The method used in this research is the dactic design. Research didactic design (didactical Design Research) is the development of educational methods research design (EDR. Plomp (2007, pp. 9), states a research design:

A systematic reviews of designing, developing and evaluating educational interventions (such as programs, strategies and learning materials, products and systems) solutions to solve complex problems in educational practice, which also aims to advance our knowledge of the characteristics of the interventions as well as process design and development.

Didactical research stage design research conducted by the decline of the stages of research design research model of Reeves.

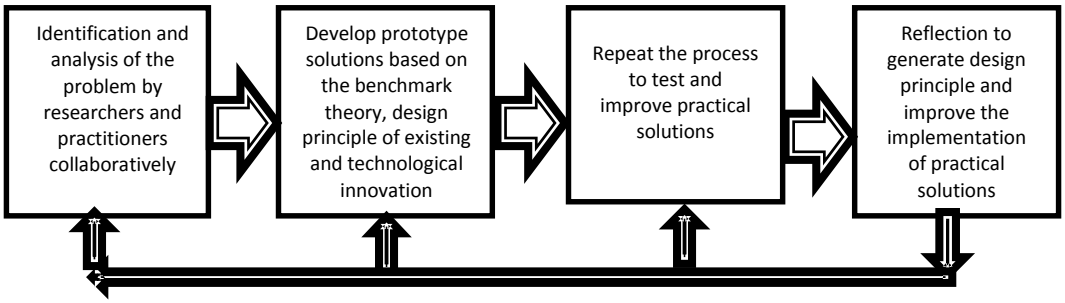
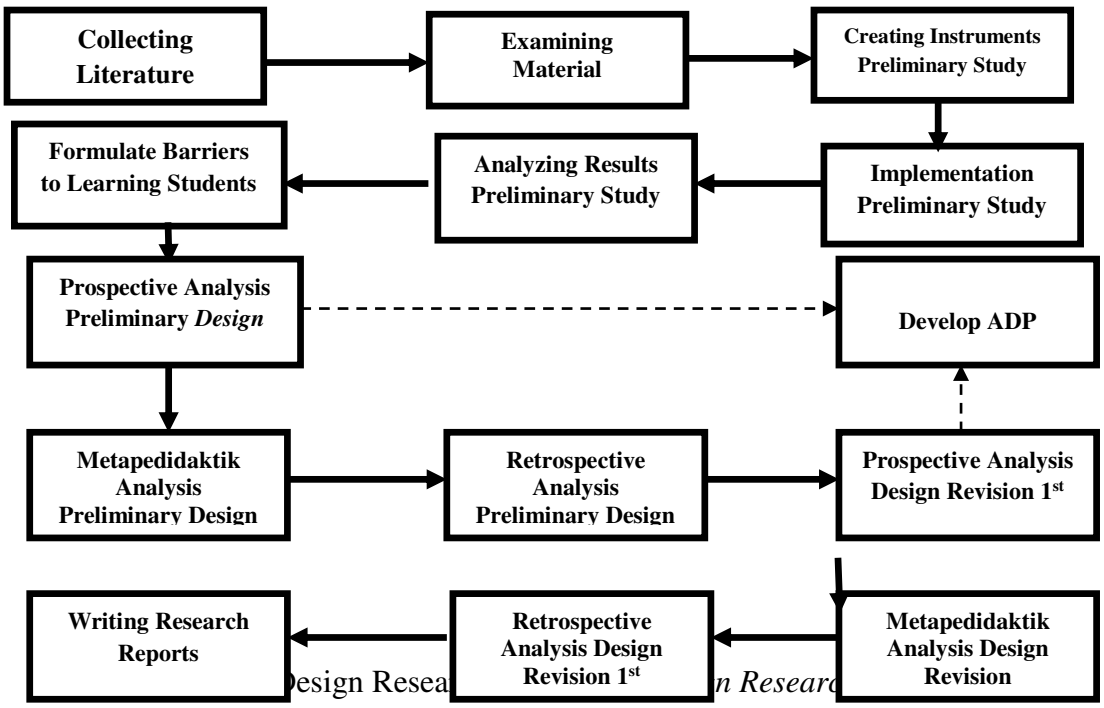


Figure 1 The steps of designing Research Reeves Model

This study analyzes the learning process before-until post metapedadidaktik learning with *learning* and attention Hypothetical trajectory (HLT) as a first step in preparing instructional design. Metapedadidaktik is way of thinking teachers to learning activities. According to Suryadi (2012, pp. 5) metapedadidaktik a teacher's ability to, look at the components of the modified triangle didactic namely ADP, HD, and HP as a whole. In addition, develop measures so as to create didactic and pedagogical situations which correspond to the needs of students. Next, identify and analyze the response of the students as a result of acts performed didactic and pedagogical. Important part is to take a didactic or pedagogical advanced response analysis based on the results of students towards the achievement of learning targets. While hypothetical learning trajectory (HLT) is suggestive trajectory of student learning. The assumption is studied further by the day during the study based on the plan in the form of learning activities "(Gravemeijer the Princess, 2012, pp. 2). Researchers conducted the study of theory and create learning tracks that serve as preliminary design. The components of Hypothetical learning trajectory consist of learning goals for students, plan learning activities, and allegations of the learning process in the classroom.

The design of this study can be described as follows:



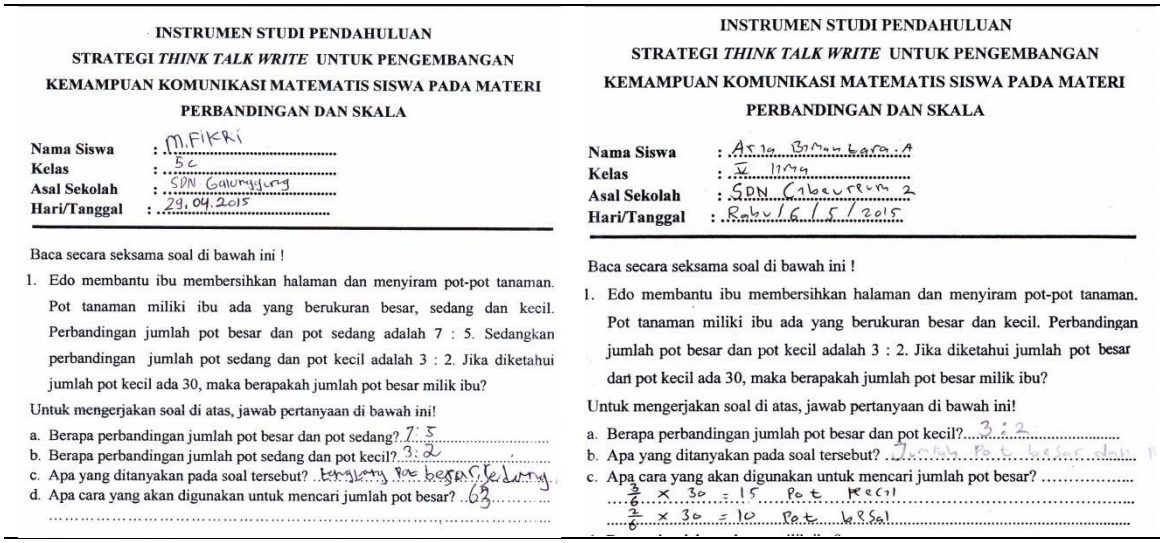
Research conducted at SDN Galunggung located on Jl. Galunggung No. 14 district. Tawang and SDN Cibeureum 2 at Jl. KH Khoer Affandi 62 Ex New Town district. Cibeureum Tasikmalaya. In qualitative research, the researcher is the main instrument, once the focus of the research is clear, then developed into a research instrument simpler to complete data needed by researchers. According Sugiyono (2012, pp. 306) "the researcher as a human instrument, serves to fix the focus of research, selecting informants as a source of data, interpret the data and make conclusions on its findings". Instruments that support this research were observation sheets, sheets interview questionnaire responses of students to make observations, interviews and determine a student's response after test design. The research instrument was developed to test the validity and reliability of research instruments. Test data validity in qualitative research was consisted of testing credibility, dependability, and conformability (Sugiyono, 2012: 270-277). In this study, researchers refer to the opinion of Miles and Huberman (Sugiono, 2012: 337) activity in qualitative data analysis performed interactively and runs continuously until complete so that the data is already saturated.

FINDINGS AND DISCUSSION

Finding

In the previous findings have obtained the data communication barriers students namely, type 1: barriers to communicating the completion of a matter of comparison, type 2: the obstacles communicate measures do problem comparisons through writing and type 3: barriers to communicate an opinion on the strategy used friends in solving comparison,

Examples of student answers:



INSTRUMEN STUDI PENDAHULUAN
STRATEGI *THINK TALK WRITE* UNTUK PENGEMBANGAN KEMAMPUAN KOMUNIKASI MATEMATIS SISWA PADA MATERI PERBANDINGAN DAN SKALA

Nama Siswa : M.FIKRI
Kelas : 5c
Asal Sekolah : SDN Galunggung
Hari/Tanggal : 29.04.2015

Baca secara seksama soal di bawah ini !

1. Edo membantu ibu membersihkan halaman dan menyiram pot-pot tanaman. Pot tanaman miliki ibu ada yang berukuran besar, sedang dan kecil. Perbandingan jumlah pot besar dan pot sedang adalah 7 : 5. Sedangkan perbandingan jumlah pot sedang dan pot kecil adalah 3 : 2. Jika diketahui jumlah pot kecil ada 30, maka berapakah jumlah pot besar milik ibu?

Untuk mengerjakan soal di atas, jawab pertanyaan di bawah ini!

a. Berapa perbandingan jumlah pot besar dan pot sedang? 7 : 5
b. Berapa perbandingan jumlah pot sedang dan pot kecil? 3 : 2
c. Apa yang ditanyakan pada soal tersebut? Banyaknya pot besar & kelang
d. Apa cara yang akan digunakan untuk mencari jumlah pot besar? 63

INSTRUMEN STUDI PENDAHULUAN
STRATEGI *THINK TALK WRITE* UNTUK PENGEMBANGAN KEMAMPUAN KOMUNIKASI MATEMATIS SISWA PADA MATERI PERBANDINGAN DAN SKALA

Nama Siswa : Asia Bmm Kara A
Kelas : V lima
Asal Sekolah : SDN Cibeureum 2
Hari/Tanggal : Rabu/6/5/2015

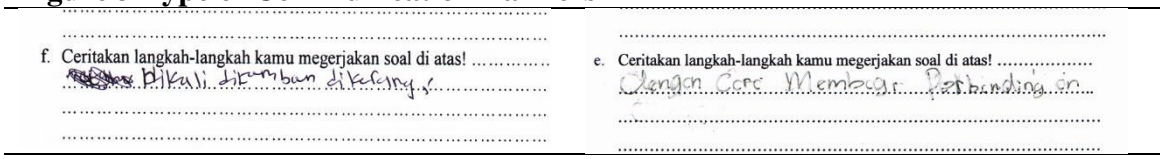
Baca secara seksama soal di bawah ini !

1. Edo membantu ibu membersihkan halaman dan menyiram pot-pot tanaman. Pot tanaman miliki ibu ada yang berukuran besar dan kecil. Perbandingan jumlah pot besar dan pot kecil adalah 3 : 2. Jika diketahui jumlah pot besar dan pot kecil ada 30, maka berapakah jumlah pot besar milik ibu?

Untuk mengerjakan soal di atas, jawab pertanyaan di bawah ini!

a. Berapa perbandingan jumlah pot besar dan pot kecil? 3 : 2
b. Apa yang ditanyakan pada soal tersebut? Jumlah Pot besar
c. Apa cara yang akan digunakan untuk mencari jumlah pot besar?
$\frac{3}{6} \times 30 = 15$ Pot kecil
$\frac{2}{6} \times 30 = 10$ Pot besar

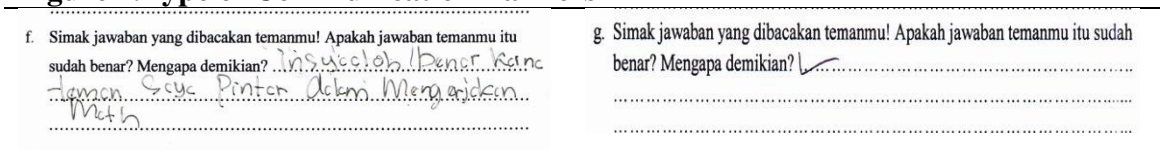
Figure 3 Type of Communication Barriers 1



f. Ceritakan langkah-langkah kamu megerjakan soal di atas! Dikali ditambah dikurang.

e. Ceritakan langkah-langkah kamu megerjakan soal di atas! Dengan cara membagi perbanding an

Figure 4.Type of Communication Barriers 2



f. Simak jawaban yang dibacakan temanmu! Apakah jawaban temanmu itu sudah benar? Mengapa demikian? Insyaallah benar karna teman saya pinter dalam mengajarkan Math

g. Simak jawaban yang dibacakan temanmu! Apakah jawaban temanmu itu sudah benar? Mengapa demikian? ✓

Figure 5 Type of Communication Barriers 3

Didactic Design of Mathematic Communication in Fifth Grade Elementary School in Comparison.

Once known mathematical communication barriers in the material comparison in fifth grade elementary school, then the next thing to do is to develop instructional design. Instructional design developed aim to minimize or prevent the rise of mathematical communication barriers. Development of instructional design is an attempt to learn about communication purposes is to reach mathematics. Based on KI (the core competence) and KD (the basic competence) are developed, the indicator and the learning objectives are arranged in a didactic design in this study are as follows, indicators and mathematical learning objectives communication on comparison.

Mathematical Communications indicators
1. Express concepts in the form of a sentence comparison to mathematics.
2. Express concepts in the form of mathematical sentences
3. Stating the problem in the form of a sentence comparison to mathematics.
4. Solve the problem of comparison.
5. Declare the result of the settlement of the problem in the form of comparisons to the journal.
Learning objectives
1. Able to express the concept of comparative into mathematical form of the sentence.
2. Capable of stating the problem in the form of comparisons to mathematical sentence.
3. Be able to communicate about the completion of the comparison.
4. Able to communicate the results of the settlement of a matter of comparison in the form of journal writing.
5. Able to give an opinion on his strategies used in solving the comparison.

Step-by-step learning mathematical communication activities on material ratio fifth grade by using strategy think talk write with the allocation of learning time 3x35 minutes. Below is an outline of the design development is:

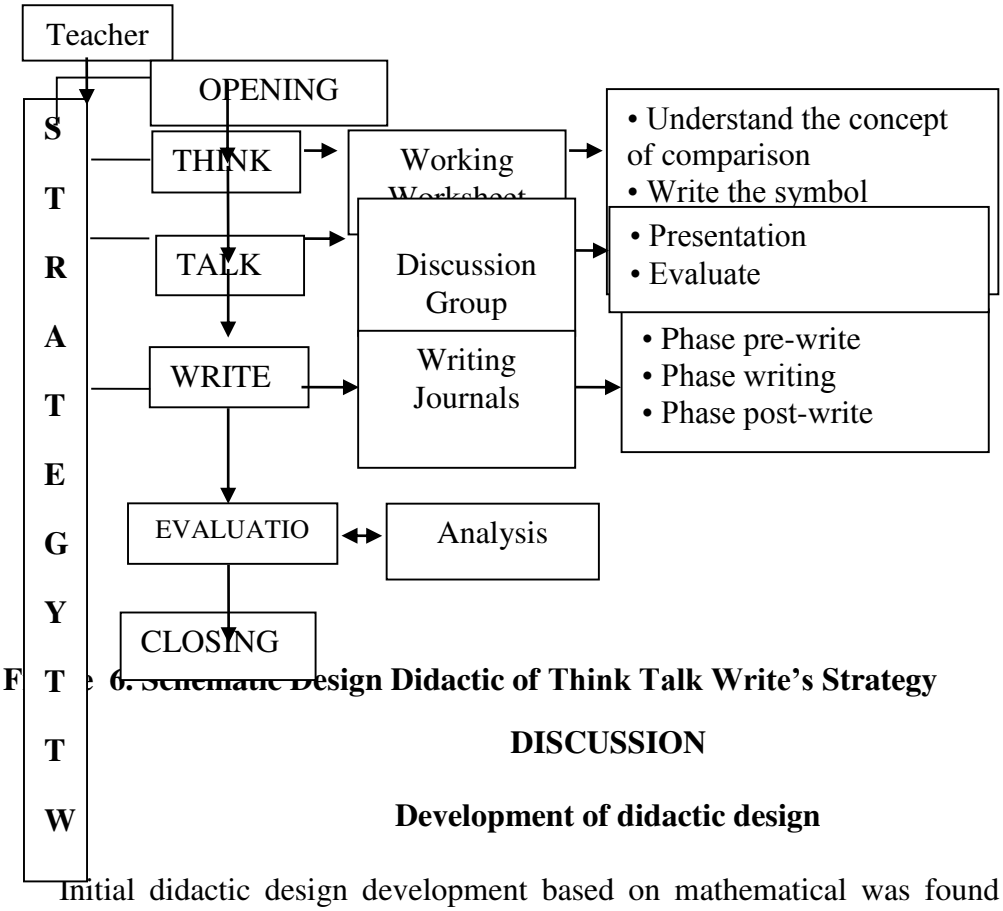


Figure 6. Schematic Design Didactic of Think Talk Write's Strategy

DISCUSSION

Development of didactic design

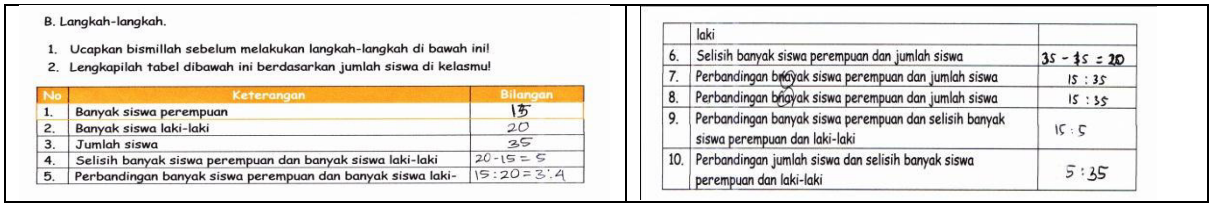
Initial didactic design development based on mathematical was found communication barriers when preliminary studies. The theory used in the preparation of the initial design of this include learning theory by Gagne, Piaget learned Theory, Strategy *Think Talk Write* by Huinker and mathematical communication by the NCTM standards.

Table 1 Response Prediction Students and Anticipation Didactic

Student Response Prediction	ADP
Students immediately answered after reading about not reading the steps provided.	Emphasis on the "to do the problems above, answer the question below!"
Record comparison without simplifying into the simplest form of comparison.	What is the ratio of the number of boys and girls? Can it be simplified? For figures on the left and right by the same number.
Students do not know how to find the amount of each pot is moved by the mother and Edo.	Using box strategy or strategies multiplying comparison with the total pot.
Students trouble to write process steps work on the problems of comparison.	Guiding students in accordance with the stages of writing. Pre-writing Select the topics that were written.

Didactic design learning activities using the write strategy consists think talk from three activity core. Learning strategy is built through thought, talk and writing. The

first stage is pre-writing. Students will reflect on the idea of what will be a topic in his writing. Teachers lead students to write about the process of working through a comparison of some of the questions.



B. Langkah-langkah.

1. Ucapkan bismillah sebelum melakukan langkah-langkah di bawah ini!
2. Lengkapilah tabel dibawah ini berdasarkan jumlah siswa di kelasmu!

No	Keterangan	Bilangan
1.	Banyak siswa perempuan	15
2.	Banyak siswa laki-laki	20
3.	Jumlah siswa	35
4.	Selisih banyak siswa perempuan dan banyak siswa laki-laki	20-15 = 5
5.	Perbandingan banyak siswa perempuan dan banyak siswa laki-	15:20=3:4

	laki	
6.	Selisih banyak siswa perempuan dan jumlah siswa	35 - 15 = 20
7.	Perbandingan banyak siswa perempuan dan jumlah siswa	15 : 35
8.	Perbandingan banyak siswa perempuan dan jumlah siswa	15 : 35
9.	Perbandingan banyak siswa perempuan dan selisih banyak siswa perempuan dan laki-laki	15 : 5
10.	Perbandingan jumlah siswa dan selisih banyak siswa perempuan dan laki-laki	5 : 35

Figure 7 Example of Worksheet

After that, students recall how he is doing about the comparison on activities 4. Students are allowed to re-examine the results of its work in the worksheet activities 4.

At this stage, students gather experience learning about the comparison. Through the process of reflection, students determine that he would write about the working process of comparison.

Second stage is writing itself, students write the language of their everyday work on the problems of the comparison that has been experienced. Students are given examples of writing that tells about the process of doing the matter of comparison. So that students have a picture to tell in their own words through writing. At the end of the lesson the students will work on the evaluation of which there are about to rewrite process comparison work on the problems.

When finished completing the Worksheet of journal writing, students re-examine what has been written. Event check students' papers have been written after writing an activity stage.

Implementation of didactic designing development of mathematical communication in class V SD in a matter of comparison.

Implementation of early learning didactic design implemented in SDN Cibeureum 2, with the number of students as many as 35 people. Learning held in one meeting and consists of several activities. Activity 1st and 2nd, an activity to deepen comprehension students about the concept of comparison, writes the symbol of the comparison and its application in everyday life. Activity 3th, to train students to write any behavior that reflects unity and vice versa.

do apersepsi by asking questions; "Will you observe the mother holding a stick?" "How long is the stick?" "Which sticks longer?" "Which Sticks shorter?"	Students do classroom environment observation about the number of boys and girls in her class. (Observing) Students find out the ratio of boys and girls in her class. (Information processing)
do apersepsi by asking questions; "Will you observe the mother holding a stick?" "How long is the stick?" "Which sticks longer?" "Which Sticks shorter?"	Students do classroom environment observation about the number of boys and girls in her class. (Observing) Students find out the ratio of boys and girls in her class. (Information processing)

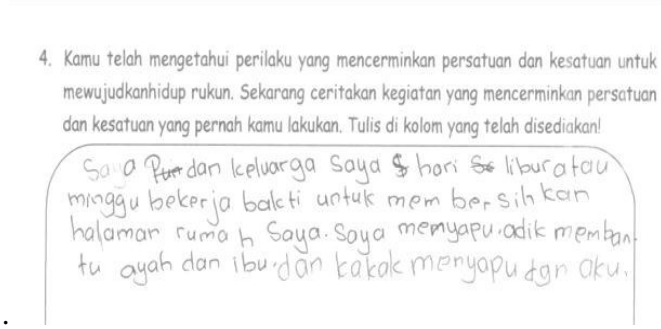
In addition, there are activities to write about the experience of unity and oneness ever experienced students. This activity is based on load demands social studies. Activity 4th, students work on the problems of comparison.

"Edo help mothers move potted plants from the backyard to the front yard. Potted plants were transferred mother and Edo amounted to 45 pots. Comparison of the number of pots being moved mother and Edo is 4: 5. How much of each pot is moved by the mother and Edo? " To work on the problems above, answer the question below! a. What is the ratio of the number of displaced mothers pot and the pots were transferred Edo? b. What was asked on the matter? c. How do I find a lot of pots were transferred mother and Edo? d. How many pots are transferred mother? e. How many pots are moved Edo?

To work on the problems that there are in comparison worksheets, students were led to identify things that are found in the matter, find out the problems that must be solved, and work on the problems of the strategies of each student. After the students worked, the next activity students discuss the results of their work with friends in the group.

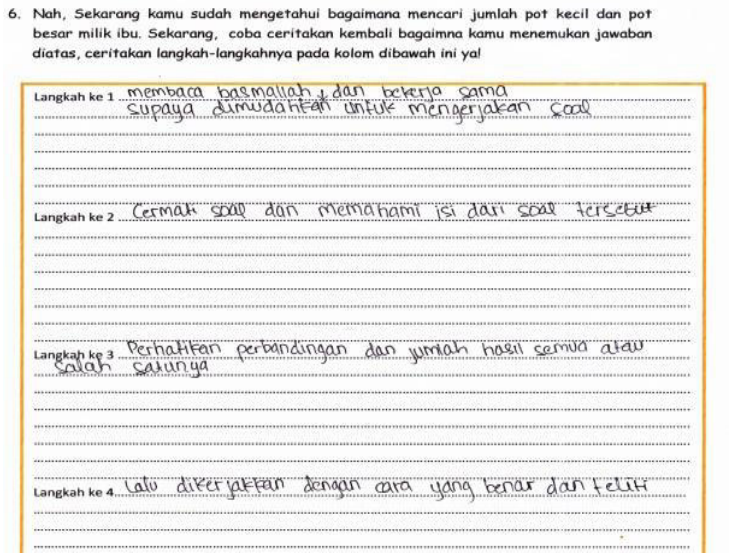
Figure 6 students are guided to discuss the results

Activities which are carried out students are discussing out of 4-6 students. Topics to be used as ingredients in the discussion were the workmanship worksheet group. After the discussion, students write a journal about the process of working on a matter of comparison. Although students initially less monitored well, but it can be anticipated well.



4. Kamu telah mengetahui perilaku yang mencerminkan persatuan dan kesatuan untuk mewujudkanhidup rukun. Sekarang ceritakan kegiatan yang mencerminkan persatuan dan kesatuan yang pernah kamu lakukan. Tulis di kolom yang telah disediakan!

Saya dan keluarga Saya hari libur atau minggu bekerja bakti untuk membersihkan halaman rumah Saya. Saya menyapu adik membantu ayah dan ibu dan kakak menyapu tgn aku.


6. Nah, Sekarang kamu sudah mengetahui bagaimana mencari jumlah pot kecil dan pot besar milik ibu. Sekarang, coba ceritakan kembali bagaimna kamu menemukan jawaban diatas, ceritakan langkah-langkahnya pada kolom dibawah ini ya!

Langkah ke 1 membaca basmallah dan bekerja sama supaya dimudahkan untuk mengerjakan soal

Langkah ke 2 Cermati soal dan memahami isi dari soal tersebut

Langkah ke 3 Perhatikan perbandingan dan jumlah hasil semua atau salah satunya

Langkah ke 4 lalu dikerjakan dengan cara yang benar dan teliti

Figure 7 Example of Journal

Although the initial design implementation didactic responses are students who are not unpredictable, but it is a natural thing when you are in the learning process. From the results of the implementation of the didactic design revisions researchers get results from the development of talk-think-write strategy to improve students' mathematical communication ability on comparative material. This study design is a concept and this context is the result re-personalization based on the study of the didactic design revisions by researchers. The learning is built through thought, talk, and writing.

CONCLUSION

Didactic design early mathematical communication on the concept is based on a communication comparison's obstacles arise. Instructional design collaborates on a process developed by thinking, discussing and writing. Learning begins with the thinking, identify a problem and plan solutions math problems. Thereafter, continued learning by giving students the chance to discuss and exchange ideas. Topics to be discussed are the results of their work on the solution of mathematical problems of comparison (talk). Recently students write about the working process of comparison, to build students' ability written communication (write). After the researchers was made a hypothetical learning trajectory (HLT) to guide the researcher during the initial learning. Then, the investigators designed a scheme that can describe the design of didactic learning activities called talk think write strategy development to improved communication skills mathematical fifth grade students in the material comparison, Implementation of the initial didactic design implemented in fifth grade elementary school of SDN Cibeureum II by the number of students 35 people. The results of the initial didactic design implementation largely as predicted responses of students, students' writing skills are still lacking, it was found that responses are not predictable in advance.

REFERENCES

Badan Standar Nasional Pendidikan 2010. *Paradigma Pendidikan Nasional Di Abad-21*. Jakarta: BSNP

Kurniasih, D.A. 2009. *Pengaruh Implementasi Strategi Pembelajaran Think Talk Write Terhadap Prestasi Belajar Matematika Siswa Dalam Menyelesaikan Soal Cerita Ditinjau*

Dari Kemandirian Belajar Siswa Pada Siswa Smk Jurusan Bisnis Manajemen. Tesis: Universitas Sebelas Maret

Mahmudi, A. 2009. *Menulis sebagai Strategi Belajar Matematika*. Makalah : Seminar Nasional Matematika dan Pendidikan Matematika Jurusan Pendidikan Matematika FMIPA UNY Yogyakarta (Sabtu, 05 Desember 2009)

Nisa, K. 2012. *Pengaruh Strategi Think-Talk-Write Terhadap Peningkatan Kemampuan Analogi dan Komunikas Matematis Siswa Sekolah Menengah Pertama*. Tesis : UPI

Plomp, T. et. al. 2007. *An Introductional to Educational Design Research*. Netherland: *Proceding of the seminar conducted at* The East China Normal University Sanghai-China (23-26 November 2007)

Reilly, E. 2007. *Writing To Learn Mathematics: A Mixed Method Study*. Disertasi: *Indiana University* of Pennsylvania

Sanjaya, Wina. 2008. Perencanaan dan Desain Sistem Pembelajaran. Jakarta: Kencana.

Sugiyono. 2012. *Metode Penelitian Kuantitatif, Kualitatif dan R&D.* Bandung: Alfabeta

Suryadi, D., Kartika, Y., dan Enjun, J. 2010. *Model Antisipasi dan Situasi Didaktis Dalam Pembelajaran Matematika Kombinatorik Berbasis Pendekatan Tidak Langsung.* [Online]. Tersedia:http://file.upi.edu/Direktori/Fpmipa /Jur._Pend._Matematika/195802011984031-Didi_Suryadi/Didi-24.Pdf (26 Juni 2015)

Urquhart, V. 2009. *Using Writing in Mathematics to Deepen Student Learning. Boulevard: Mid-continent Reaserch For Education and Learning.*

Wahidah, I., dan Yuwono, I. 2013. *Penerapan Strategi Think Talk Write (TTW) untuk Meningkatkan Hasil Belajar Matematika Siswa Kelas VII SMP Brawijaya Smart School (BSS)*. Artikel : Universitas Negeri Malang.

Wichelt and Kearney. 2009. *Communication: A Vital Skill of Mathematics. Dalam Jurnal University of Nebraska-Lincoln, Vol-, hal 6, http://digitalcommons.unl.edu/ mathmidaction research*.(20-Okt-2016)

The Effect of Headmaster's Managerial and Supervision Abilities Towards Teachers Performance of Junior High School at Muna Barat and Muna in South Eastof Sulawesi

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Abstract: This research aims to investigate the influence of Headmaster's managerial ability and supervision abilities towards teacher performance of Junior High School at Muna and Muna Barat in South East of Sulawesi. This research used a survey with quantitative approach, and kind of this research is expose-facto, because all of the data collecting have been implicated and want to find causality-relationship. Sampling technique that used is random sampling, the subject of this research are five of the Junior High School at Muna and Muna Barat in South East of Sulawesi with 177 population and 75 samples. The data is collected by questionnaire was Analyzed with multiple regressions by SPSS for windows version 11:50. Based on the result of analysis of regression, there is the influence of Headmaster's managerial abilities (X1) and learning supervision abilities (X2) towards teacher performance (Y), (contribution of Headmaster's managerial abilities (X1) and learning supervision abilities (X2) towards teacher performance (Y) is R2y12 = 0.740 or 74.0%). The results of this research suggested many things, like: (a) Must be changes recruitment rules as Headmaster especially at Junior High School at Muna and Muna Barat in South East of Sulawesi, (b) Must be a make reoriented about the role of learning supervision towards Headmaster at a junior high school at Muna and Muna Barat in South East of Sulawesi, (c) Teacher performance of Junior High School at Muna and Muna Barat in South East of Sulawesi need to improve education quality by participating until reach goals.

Keywords: Managerial Ability, Ability Supervision and Teacher Performance

It is recognized that the quality of education generally and students' achievement at the school particularly is the result of a process of interaction of various factors such as: teachers, students, curriculum, textbooks, laboratories, teaching methodology, legislation in the field of education, and a variety of input and other process conditions. Although the factors that become the input has been addressed over the years, both quality and quantity, so the conditions have been better than the previous conditions, but the quality of education and students' learning achievement has not reached as desired. There is a factor that has not received the attention as equal as the attention given to other factors that is management education.

One of form and level of management education is important but still less untouched in the program of the educational development is headmaster leadership. Indeed, no amount of school added or fixed input, the output still will not be optimal if the factors of headmaster leadership which is an aspect that is very strategic in teaching and learning have been abandoned or are not given attention seriously. It is because in the end the headmaster is the leading manager who decides whether or not any input process, and to interact positively in teaching and learning systems.

As the formal leader, the headmaster to occupy key positions in determining the success of the school, located in the efficiency and effectiveness of the performance or appearance that showed. Wahjosumidjo (1999: 349) argues "school success is the success of the head master and the headmaster's success is the success of the school". Thus, this is right when the public

demanded that headmaster leadership should be qualified. Leadership's quality is always driven by their abilities or competencies that are relevant to the demands of the job in a professional manner.

It is relevant with what was said by Mastum (1993: 9) that, (1) the headmaster as an educator, means that he/she is educators who implement the curriculum, (2) the headmaster as a manager, because the headmaster is a leader who carry out the management (manager), should be clearly prepared to do anything, (3) the headmaster as an administrator, he organize and carry out administration, and (4) the headmaster as a supervisor, then headmaster carry out class performance, BP / BK, staffs of school and guiding each.

One way to think of what is done by the headmaster as a manager is to look at the capabilities they need to achieve the goals, as indicated by Katz and Zeigler in Parkhouse (1991) that, the role of manager of the headmaster can be described in five aspects of ability to be owned by a manager, namely: (a) the ability of the technique; include: methods, procedures, or techniques that mixed with the organization's work, (b) human ability ; include: the ability to understand human perceptions, attitudes and behavior, (c) conceptual abilities; include: understanding the organization as a whole, how the parts can be arranged together, and how the entire organization can be run in accordance with the economic, social and political reality, (d) group ability; include: the ability to combine technical, human and conceptual abilities, and (e) the personal capabilities; include: the ability to manage time efficiently, expressing thoughts with the real, and organized, and follow the information and events. In this case, also Craine (2003) distinguish the role of the headmaster into two parts, namely: (a) as a manager and, (b) as a leader. As a manager, the headmaster's role includes the following aspects: (1) planning, (2) organization, (3) implementation, and (4) control. Meanwhile, as a leader, the headmaster's role includes the following aspects: (1) have the foresight, (2) services, (3) assistance, and (4) problem solving (facilitating).

So it can be stated that the managerial ability of the headmaster is the ability to be possessed by a headmaster principal in order to achieve educational goals that have been set in accordance with the management functions that include aspects of planning, organizing, mobilizing and controlling.

While in terms of guidance provided to teachers, according to the meaning, function and purpose of supervision of learning that provide services and assistance to teachers in order to improve and develop teaching and learning situation, it is to be more effective in accordance with the needs and difficulties faced by each teachers would need to analyze the difficulties faced by each teacher. For indeed, the style of supervision that is required nowadays is no longer oriented to the tasks of an administrative nature alone but farther to the things that are given assistance and services to teachers as it is lived by the function and role of the supervisor as a motivator, catalyst , stabilizers, denominator and innovator in the field of education. For this a supervisor is required to be able to have the ability and skills in diagnosing and analyzing the various problems faced by teachers in accordance with the actual supervision functions.

Related to this Mulyasa (2003: 157) asserts that, "Every supervisor of education must understand and be able to carry out supervision in accordance with the functions and their main duty, whether concerning the assessment, research, improvement or development." Meanwhile, Burhanuddin (1990: 298) quotes the Ametembun's opinion states that the functions of supervision of education are: 1) research, 2) assessment, 3) Improvements, 4) Guidance. "Research is an activity to obtain a clear and objective picture of the situation of education and learning. Through this research, the data and information needed as a basis for analyzing the situation of education and learning in more depth. The results of the analysis and conclusions of the study can be considered to determine the actions and steps that need to be done to improve and develop education and learning situation. Assessment is a follow-up effort to find out the

results of further research, ie, to determine the factors that affect the situation of education and teaching that have been studied previously. Meanwhile, the improvements were made based on the results of research and assessment. In this case the supervision has to know and understand the condition of education generally and teaching and learning process particularly, as well as the state of the various facilities. By understanding the situation and conditions, means the supervisor has found strengths and weaknesses, so that the task of the next supervisor is looking for a way out for repair, improvement and development. While the development is an effort to maintain and improve good conditions that have both recovered from the results of research and assessment.

Thus, the ability to supervise teaching and learning is the ability to provide assistance for the improvement and development of teaching and learning situation so that the learning process are effective and efficient, which covers four main aspects namely: the study or observation, assessment, improvement and development. In this case the supervision of learning is emphasized in an effort to provide assistance to teachers in improving teaching.

Therefore, with the ability of the manager and supervision owned headmaster are expected to affect the climate of the school organization, which in turn will also affect in determining the performance of teachers; in carrying out its duties and determine the success of the organization (school) to achieve its intended purpose.

Talking about the teacher's performance, in management education teacher performance has close relationship with the management of teacher development. If the management of teacher development carried out in a systematic and planned carefully you will get teachers who have high competence and through the teachers who have high competence will be born teachers who have high performance. In line with this teacher performance issues, Vroom (in Mulyasa, 2004: 36) argues, "the performance is a function of combining ability and motivation". The function in question means that, if someone low in one of the components, such as motivation, so as same as the performance.

In connection with the implementation of the teachers' daily tasks, their performance can be affected by various factors, among which are lack of skills, lack of incentives or no incentives rather, a work environment that does not support, and lack of motivation. (Rossett and Arwady in Kusuma, 2004: 10). In addition, one of the main aspects that determine the effectiveness of the teacher is working spirit, that mental condition that full of earnestness, discipline, willpower and determination in carrying out duties as a teacher to achieve educational goals optimally. (Sumidjo, 1987).

Many theories were put forward about the factors that encourage the teachers' spirit with different viewpoints. Theories exist when examined from the driving source can be classified into two, namely the job-related factors and personal factors.

Factors associated with the work are the main source that causes the high and low of teachers' spirit. These factors are the willingness to work, status recognition, wage, finance, social relations, working conditions, achievement, leadership, and state peers (Nawawi, 1985). Some theories and research results exist, although slightly different tend to the same point that, based on these factors. Kimbal Niles quoted Ibrahim (1992) suggests eight factors, namely the willingness of work, status recognition, wage, finance, social relations, working conditions, achievement, and leadership. Harsey and Jugusen research results also showed similar results with the addition of two factors, namely the working hours and ease of work (Indra fachrudin, 1993). In addition to these factors, personal factors can also affect a person's spirit. Herzberg cited Sumidjo (1987) suggests that one of factor working baffle is private life. Personal factors are healthcare, expectations and personal needs. So, work spirit is a psychological aspect that affects the person's behavior. Someone will try to be optimal in performing his job, has had a high spirit.

Based on the explanation above, the objectives of this research is to determine the influence of teachers' perception toward the headmaster managerial ability and teachers' perception on learning supervision ability toward teachers' performance of Junior High School at Muna and Muna Barat in South East of Sulawesi..

The results achieved this research may be used as consideration in a policy in delivering development efforts and increase the professionalism of the performance of headmaster and teachers of Junior High School at Muna and Muna Barat in South East of Sulawesi.

RESEARCH METHODS

Approach and Types of Research

This study is a survey using a quantitative approach, while this kind of research is expost-facto, because all of the data collected has occurred and want to find a causal link.

Population and Sample Research

Subject the population in this study is the headmaster and teachers of Junior High School at Muna and Muna Barat in South East of Sulawesi that consist of five (5) schools, where the total population is 182 people. While the number of samples studied is 44% of the total population, or as many as 80 people consist of five headmasters and 75 teachers of Junior High School at Muna and Muna Barat in South East of Sulawesi. In determining the number of samples used random sampling methods with techniques lottery.

Data collection technique

The variable of this study consists of three variables, namely two independent variables and one dependent variable. Which included the independent variable in this study is headmaster managerial ability (X1) and supervision learning ability (X2), while the dependent variable is the teachers' performance of SMP (Y) subordinate to the principal concerned. The relationship between the two independent variables with the dependent variable is as follows:

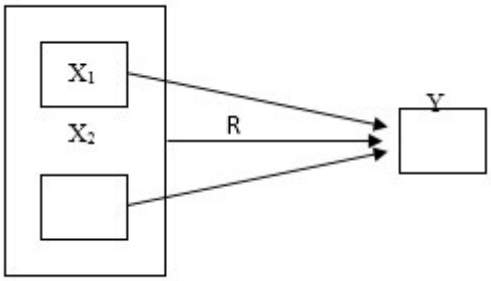

Figure 1: The relationship between independent variables (X_1, X_2) and dependent variable (Y).

Data Collection Instrument

In accordance with the objectives to be achieved in this study, the instruments used to collect the data of the three variables mentioned above are questionnaires (questionnaires), closed and indirect. Closed; because researchers have to provide possible answers to the

respondents, while not directly; the intention is for the respondent did not answer about himself but about other people.

Steps of the questionnaire of this study are: (a) Make specification questionnaire (Questionnaire Specification), the questionnaire first and second, each consists of 20 grains and 27 grains for headmaster, as well as questionnaires third consists of 35 items for teachers developed based on the results of preliminary studies conducted by interviewing headmasters of Junior High school at Muna and Muna Barat in South East of Sulawesi. Questionnaire first and second filled by teachers and the headmaster, while the questionnaire third filled by the headmaster, (b) Writing test items (Items Writing) using a Likert scale (Likert's Scale) for both questionnaires for headmaster and teachers that consists of 5 alternatives the answer is: Very Good / Always (by weight 5), Good / Frequently (by weight 4), Enough / Sometimes (with weights 3), Less / Rarely (with a weight of 2), and Very Less / Never (with weight 1), and (c) re-examination questionnaire (Items Review) by holding the expert professional judgment.

Test Instruments

On the purpose that the instruments used in this study can be used with results that can be accounted for, the instrument first tested on five headmasters and 20 teachers of Junior High School at Muna and Muna Barat in South East of Sulawesi. The objective of the trial is to determine the instruments understanding of the content and legibility of the questionnaire, the validity and reliability of the questionnaire. Test the validity of the instrument in this study conducted on content validity (content validity) and construct validity (construct validity). Measurement validity of the content is intended to determine how far such instruments have reflected appropriate content with things and properties measured (Kerlinger, 2002: 931). Thus, the instrument is said to be both as a tool to measure and collect the data, if the instrument can accurately measure the things that will be measured. Kerlinger (2002: 731-733) states that in order to obtain an idea of the validity of the content we are guided by the question. Does the content or the substance of this size represent the content or charge a property of the universe that is to be measured? So the goal of analysis is directed to traits (trait) that is being measured by the test in question. Therefore, the analysis conduct rationally, so the result is not in the form of a quantitative index. Kerlinger say that this work is not easy. Usually for this purpose there should be other judges who adjudicate the content test items, the judge suggested that professional and competent people. In other terms the judges here are known by the term "judgment".

To find out the content validity of the steps of a questionnaire through the stages mentioned above is an effort that these instruments are valid, namely: (1) composing from started the specification which aspects of it adapted to the scope of the measured variables, (2) From specification then compiled and written questionnaires texts, (3) questionnaire consulted with experts or, the supervisor. So it can be said that this instrument has fulfilled the requirements of content validity (content validity).

In addition Kerlinger (2002: 736-737) says that the construct validity is one of the most important scientific advances in the theory and practice of measurement. Thus, it is said because the construct validity connects ideas and psychometric practical on the one hand with theoretical ideas on the other.

Further explained that with the construct validity of this we want to see: the factors or constructs are causing variants / variability in the test? Are the tests also measure membership in social status. In short the construct validity of our attempts to explain individual differences in terms of tests scores. So our attention with more emphasis on things or properties measured, not on tests used to obtain the measurements. Cronbach (Kerlinger, 2002: 737) says that there

are three sections in the validation of the constructs, namely; explication on the possible effect of the construct on the test results, making hypotheses based on theories involving the construct, and test the hypothesis empirically.

To test the construct validity of the analytical techniques used items, namely by looking at the correlation between the items with the total score. Where the formula used is the *Product Moment Correlation* with rough numbers. The results of analysis of the validity is as follows: (1) item questionnaire that do not qualify for the questionnaire opinion of teachers about the ability of managers the headmaster is absent or all item questionnaire valid, (2) item questionnaire that do not qualify for the questionnaire opinion of teachers about learning supervision is no valid questionnaires or all of the items, and (3) item questionnaire that do not qualify for teacher performance questionnaire is there is no or all of the items questionnaires, valid.

The instrument reliability test aims to determine the level of beliefs of the questionnaire as a data collection tool. Instrument reliability test were analyzed using the formula of Cronbach Alpha.

Reliability test results instruments followings: (1) The coefficient alpha for the opinion of the teachers about headmaster managerial ability is at 0923, (2) The coefficient alpha for the opinion of the teachers about the ability to supervise the learning is at 0963, and (3) The coefficient alpha for teacher performance is at 0936. Wherein the level of reliability of the instrument follows the opinion of Balian was quoted as saying by Soehartono (2002: 86) is as follows: the magnitude of the correlation coefficient 0.90 - 1.00 = category are extraordinary good, 0.85 - 0.89 = excellent, 0.80 - 0.84 = good, 0.70 - 0.79 = enough and less than 0.70 = in low category.

Data analysis technique

The hypothesis tested in this study were analyzed with SPSS version 11,50, namely: (1) The first hypothesis, opinion data teachers about headmaster managerial ability and teacher performance were analyzed using simple linear regression, the equation Y = a + b1x1, (2) The second hypothesis , Data opinion of teachers about learning supervision ability and teacher performance were analyzed using simple linear regression, the equation Y = a + b2X2, (3) The third hypothesis, opinion data teachers about headmaster managerial and learning supervision abilities and teacher performance were analyzed using multiple regression, the equation Y = a + b1x1 + b2X2.

THE RESULT OF RESEARCH

Average of teachers' perception was toward headmaster's managerial ability, teacher's perception toward learning supervision ability and teachers performance respectively by 68.2, 83.5 and 128.9. Based on the scale levels are developed based on scores Mi and SDI of each of these variables in mind that the teachers' perception toward headmasters managerial ability, teachers perception toward learning supervision ability and teachers performance included in the medium category, while the teachers performance is in high category.

Data Normality Test

Based on the results of SPSS that teachers' perception toward headmasters' managerial ability, teachers' perception toward learning supervision ability and teachers performance has a statistical value of each of 0093, 0122, and 0085; each value equal significance is 0.200. This

means that the significance value greater than 0.05, where the default SPSS 0.05, in other words that the distribution of these three variables are normally distributed.

Hypothesis testing

From the analysis using SPSS, for the first hypothesis obtained by linear regression equation Y and X1, namely $\hat{Y} = 57.378 + 1.048X_1$ With sig. = 0.000 < 0.05 = α, means that H0 : $\beta 1 = 0$ rejected. Thus, H1 : $\beta 1 \neq 0$ accepted,, means that there is a significant influence teachers' perception toward headmasters' managerial ability on teacher performance. Judging from its R Square of 0666, means that 66.6% of the teacher's performance (Y) is described by the opinion of the teachers about the ability of the headmasters' managerial (X1).

As for the second hypothesis test regression equation Y and X2, namely $\hat{Y} = 86.190 + 0.511X_2$ with sig. = = 0.000 < 0.05 = α, means that H0 : β2 = 0 rejected, Thus H2 : β2 ≠ 0 accepted, means that there is a significant influence teachers' opinions about the learning supervision ablity on the teachers performance. Judging from its R Square of 0.516, means 51.6% of the teacher's performance (Y) is described by the opinion of teachers about the learning supervision ability (X2).

As for the third hypothesis test multiple regression equation Y, X1 and X2, namely $\hat{Y} = 55.517 + 0.773X_1 + 0.247X_2$ with sig= 0.000 < 0.05 = α, this means a significant multiple linear regression model, which means that there is a significant influence on teachers' opinion of the headmasters' managerial ability collectively and teachers' perception toward the learning supervision ability on performance of teachers. Judging from its R Square of 0.740, means 74.0% of the teacher's performance (Y) is described by the opinion of the teachers' perception toward headmasters' managerial ability (X1) and the opinion of the teachers about the learning supervision ability (X2).

DISCUSSION

Teachers' perception toward headmasters' managerial ability of junior high school in at Muna and Muna Barat in South East of Sulawesi classified in medium category where the average obtained amounted to 68.20. This analysis makes it clear that the need for the selection of headmaster should be in accordance with the procedures and standards that have been set.

Likewise with the opinion of the teachers' ability to supervise the learning at Junior High School at Muna and Muna Barat in South East of Sulawesi is also included in the medium category, namely with the average of 83.50. From the results of this analysis indicate that the implementation of the supervision of learning undertaken by the headmaster tends only to assess the activity of teacher learning without any follow-up, or in other words the headmaster does not provide coaching or guidance and solutions regarding the difficulties experienced by teachers in the learning process.

Meanwhile the teachers' performance of Junior High School at Muna and Muna Barat in South East of Sulawesi included in the high category with an average of 128.9. From the results of this analysis indicate that the motivation and teachers' work ability in the Junior High School teacher at Muna and Muna Barat in South East of Sulawesi is high even though the condition of their headmaster ability condition and ability to supervise the learning carry out are still medium

The first hypothesis testing concluded that there is significant influence teachers' perception toward headmasters' managerial ability on teachers' performance SMP at Muna and

Muna Barat in South East of Sulawesi shown by equations $\hat{Y} = 57.378 + 1.048X_1$, the regression equation significantly based on the calculation of F for 6767 and sig. = 0.000 < 0.05 = α. Interpretation of the equation is that if the headmasters' managerial ability (X1) and the performance of teachers (Y) measured using instruments developed in this study, so any increase in each level of the headmasters' managerial ability (X1) will be followed by a rise in the level of teachers' performance by 1,048 in the same direction (positive) with an intercept (constant) amounted to 57,378.

The strength of the relationship between the two variables is shown by the correlation coefficient ry1 = 0,816, while the determination coefficient r2y1 = 0,666 which means that amounted to 66.6% of teachers' performance (Y) is influenced by headmasters' managerial ability (X1) and the remaining 33.4% is influenced by other factors. Meanwhile, if viewed from the partial correlation, in explaining the influence of the headmasters' managerial ability (X1) on teachers' performance (Y), if the variable supervision learning ability (X2) do control, also significantly, with price ry1.2 at 0.681 and p <0.05 which means that the control variable supervision learning ability (X2), the performance of teachers (Y) is influenced by the headmasters' managerial ability (X1) of 68.1% and 31.9% were influenced by other factors; which includes the controller is variable and the other variables are unknown.

This is in line with the results of research conducted by Jamaluddin (2003: 136), that, "headmaster leadership enough significant to influence teaching capabilities so indirectly affect the quality of the graduates". Thus, the situation gives the meaning that the influence between the headmasters' managerial ability on teachers' performance is pure. This means that an increase in the ability of headmaster to perform the functions of the manager will be able to improve the performance of teachers. Therefore, in an effort to improve the performance of teachers, the headmasters' quality in carrying out the functions of a manager becoming an important part needs to consider.

The second hypothesis testing also concluded that there is significant influence teachers' perception toward learning supervision ability on the teachers' performance of Junior High School at Muna and Muna Barat in South East of Sulawesi shown by equations.

$\hat{Y} = 57.378 + 1.048X_1$, the regression equation significantly based on the calculation of F for 24 512 and sig. = 0.000 < 0.05 = α. Interpretation of the equation is when the learning supervision ability (X2) and the performance of teachers (Y) measured using instruments developed in this study, so any increase in each level of the ability to supervise learning (X2) will be followed by a rise in the level of teacher performance for 0,511 on the same direction (positive) with an intercept (constant) amounted to 86,190.

While the strength of the relationship between the two variables is shown by the correlation coefficient ry1 = 0718, while the determination coefficient r2y1 = 0.516, which means that 51.6% of the teacher's performance (Y) is influenced by the ability of supervision of learning (X2) and the remaining 48.4% is influenced by other factors. In fact, if seen from the partial correlation, in explaining the effect of supervision learning ability (X2) the performance of teachers (Y), when variables managers' ability principals (X1) do control, also significantly, with price ry2.1 at 0.472 and p <0.05 which means that by controlling the variable ability of the manager headmaster (X1), the performance of teachers (Y) is influenced by the ability of supervision of learning (X2) only amounted to 47.2% and 52.8% is explained by other factors; which includes the controller is variable and the other variables are unknown.

This illustrates that the better supervision of learning will have a positive impact on improving teacher performance. Thus the supervision of learning is also an important part that needs to be considered in an effort to improve teacher performance.

The later hypothesis concluded that there is significant influence jointly opinion of teachers about the ability of the chief manager of the school and the opinion of the teachers about the ability to supervise the learning on teacher performance of Junior High School at Muna and Muna Barat in South East of Sulawesi shown by equations $\hat{Y} = 55.517 + 0.773X_1 + 0.247X_2$, the regression equation significantly based on the calculation of F for 31 346 and sig. = 0.000 < 0.05 =α. Interpretation of the equation is that if the headmaster managerial ability (X1), learning supervision ability (X2) and the performance of teachers (Y) measured using instruments developed in this study, so any increase in the level of the headmaster managerial ability (X1) and learning supervision ability (X2) will be followed by a rise in the level of teacher performance at 0773's ability to carry out the functions of managerial headmaster (X1) and 0.247 learning supervision ability (X2) in the same direction (positive) with an intercept (constant) amounted to 55 517.

The strength of the relationship these three variables is indicated by multiple correlation coefficient Ry12 = 0.860, while the determination coefficient R2y12 = 0.740 which means that amounted to 74.0% headmaster managerial ability (X1) and learning supervision ability (X2) effect on the performance of teachers (Y) and the rest of 26% influenced by other factors. It gives the sense that the teacher performance of Junior High School at Muna and Muna Barat in South East of Sulawesi has the maximum. Similarly, the key components of teachers' performance, headmaster managerial ability and learning supervision abilty need to be considered and to be improved in order to increase the performance of teachers can be better.

From the results of studies above, means that: (1) headmaster managerial ability has a positive impact on increasing the performance of teachers. headmaster leadership quality, especially at the level of Junior High School at Muna and Muna Barat in South East of Sulawesi needs to be improved, especially with regard to skills, competence and management, (2) The role and supervision of learning in order to improve the performance of teachers in Junior High School at Muna and Muna Barat in South East of Sulawesi still not quite optimal. Therefore, in an effort to improve the quality and independence of the schools, the role and supervision of learning needs to be improved, especially with regard to employment patterns, management and competence, thus the impact on the discipline and quality of graduates increased from year to year and try to win seats in others advanced school that has higher quality, and (3) performance of teachers at the Junior high School in Muna and Muna Barat classified in high category. Thus teacher performance recognized by their motivation and ability to work are quite high. It always needs to be improved, therefore that the quality of education is expected to be achieved optimally.

In other words, the results of this study suggested, (1) the need of improvement about recruitment procedures and requirements as the headmaster or there should be a standard procedure in the appointment of headmaster, particularly at the Junior High School at Muna and Muna Barat in South East of Sulawesi. Because a headmaster in the present and the future are faced an era of tight competition, therefore that is the needed of professional ability, competency and standards skill in order to be able to answer the demands of the times changing, (2) Need for reorientation the role of learning supervision towards headmasters at the Junior High School in the town of Muna and Muna Barat district, South East of Sulawesi, hence that the function and role of learning supervision can apply optimally in order to develop the potential of teachers who are responsible, and (3) performance of teachers at the Junior High School in the town of Muna and Muna Barat district South East of Sulawesi always needs to be improved through empowerment, solidarity, involvement and openness for all sides that interested in education, therefore the quality of education is expected can be optimized.

REFERENCES

Atmodiwiryo, S. 1991. *Kepemimpinan Kepala Sekolah*. Semarang: CV Adhi Waskito.

Bailey, D. 1978. *Methods of Social Research*. London: Collier Macmilan Publisher.

Barnadib, I. 1982. *Dasar-dasar dan Metode Sejarah Pendidikan*. Yogyakarta: Yasbit IKIP Yogyakarta.

Basu, S.1985. *Azas-azaz Manajemen Modern*. Yogyakarta: Linerty, Jayeng Prawiran 21, 23

Burhanuddin. 1990. *Analisis Administrasi Manajemen dan kepemimpinan pendidikan*. Jakarta: Bumi Aksara.

Davis, Keith. 1985. *Human Behavior at Work: Human Relations and Organizational Behavior*. New York: McGrow-Hill Inc.

Depdikbud. 1999. *Panduan Manajemen Sekolah*. Jakarta: Dirjen Dikdasmen.

Depdiknas. 2003. *Undang-undang Republik Indonesia Nomor 20 Tahun 2003*. Dirjen Dikdasmen.

Dirawat, dkk. 1983. *Pengantar Kepemimpinan Pendidikan*. Surabaya: Usaha Offset Printing.

Dharma, A. 2003. *Standar Kompetensi Kepala Sekolah*. Diambil pada tanggal 10 Desember 2006, dari http://artikel.us/adharma.html.

Duignan, P.A. 1987. *Being A Leader in An Educational Institution*. Victoria: Institute of Educational Administration.

Fattah, N. 1996. *Landasan Manajemen Pendidikan*. Bandung: PT Remaja Rosdakarya.

Fernandes, H.J.X. 1984. *Testing and Measurement*. Jakarta: National Education Planning Evaluation and Curriculum Development.

Fiedler, F.E. 1967. *A Theory of LeadershipEffectiveness*. New York: McGrow-Hill Inc.

Hadi, S. 1984. *Metodologi Research*. Yogyakarta: Yasbit Fakultas Psikologi UGM.

_____ 1992. *Analisis Regresi*. Yogyakarta: Andi Offset.

_____ 2000. *Analisis Regresi*. Yogyakarta: Andi Offset.

Hamalik, O. 1991. Perencanaan dan Manajemen Pendidikan. Bandung: CV Mandar Maju

Handoko, T.H. 1993. *Manajemen Personalia dan Sumber Daya Manusia*. Yogyakarta: BPFE.

Ibrahim, Bafada. 1992. *Supervisi Pengajaran*. Jakarta: Bumi Aksara.

Indrafachrudin, S. 1993. *Mengantar Bagaimana Memimpin Sekolah yang Baik*. Jakarta: Ghalia Indonesia.

Irianto, A. 2004. Statistik: *Konsep Dasar dan Aplikasinya*. Jakarta: Kencana.

Jamaluddin. 2003. *Faktor-faktor yang Berhubungan Langsung dan tidak Langsung dengan Mutu Lulusan Sekolah Menengah Umum*. Jurnal Ilmu Pendidikan, Jilid 10, Nomor 2, 128.

Kerlinger, F.N. 2002. *Asas-asas Penelitian Behavioral*. Yogyakarta: Gajah Mada University Press.

Lazaruth, S. 1987. *Kepala Sekolah dan Tanggung Jawabnya*. Yogyakarta: Kanisius.

Made, Pidarta. 1999. *Pemikiran Tentang Supervisi Pendidikan*. Jakarta: Bumi Aksara.

Martin, Garry. 1989. *Psychology, Adjustmnet, and Everdy Living/Garrys Martin Y. Graison.* Osborn Englewood Cliff Prentice Hall

Mulyasa, E. 2003. *Manajemen Berbasis Sekolah*. Bandung: Remaja Rosdakarya.

_____. 2003. *Menjadi Kepala Sekolah Profesional*. Bandung: Remaja Rosdakarya.

Nawawi. 1985. *Administrasi Pendidikan*. Jakarta: PT Gunung Agung.

Parkhouse, Bonnie L. 1991. *The Management Sport: Its Foundation and Application*. Mosby Year Book

Rahmadjoni, T. 1991. *Pokok-pokok Pilihan Mengenai Pendidikan Guru Mencari Strategi Pengembangan-pengembangan Pendidikan Nasional Menjelang Abad XXI*. Jakarta: PT Grasindo III-136.

Robbins, S.P. 1993. *OrganizationalBehaviour Concepts, Controversies, and Applications.* (6 ed). Engliwood Cliff N.J: Prentice Hall International, Inc.

Sadler, P. 1997. *Leadership*. London: Kogan Page.

Sahertian, P.A. 1981. *Prinsip dan Teknik Supervisi Pendidikan.* Surabaya: Usaha Nasional.

Sahertian, P.A. dan Mataheru, F. 1982. *Prinsip dan Teknik Supervisi Pendidikan*. Surabaya: Usaha Nasional.

Santoso, S. 2004. *SPSS Versi 11.50, Mengolah Data Statistik Secara Profesional.* Jakarta: Elex Media Komputindo.

Sucipto dan Basori M. 1993. *Administrasi Pendidikan*. Jakarta: Dirjen Dikti.

Sudjana. 1992. *Metode Statistika*. Bandung: Tarsito.

Suharsimi. (1989). *Manajemen Penelitian*. Jakarta: Ditjen Dikti Derdikbud.

_____. 1992. *Dasar-dasar Evaluasi Pendidikan*. Jakarta: Bumi Aksara.

_____. 1993. *Organisasi dan Administrasi Pendidikan Teknologi & Kejuruan*. Jakarta: PT Raja Grafindo Persada.

_____. 2002. *Prosedur Penelitian Suatu Pendekatan Praktek*. Jakarta: Rineka Cipta.

_____. 2004. *Dasar-dasar Supervisi Pendidikan*. Jakarta: Rineka Cipta.

Sugiyono. 1994. *Statistik Penelitian*. Bandung: Alfabeta

Sumidjo, W. 1987. *Kepemimpinan dan Motivasi*. Jakarta: Graha Indonesia.

Suryabrata, S. 1987. *Perkembangan Tes Hasil Belajar*. Jakarta: Rajawali Press.

Sutisna, O. 1985. *Administrasi Pendidikan*. Bandung: Angkasa.

Terry, G.R. 1978. *Principle of Management*. Homewood: Klinoic: Richard D Irwin, Inc.

Thoha. 1995. *Kepemimpinan dalam Manajemen*. Yogyakarta: FPTK IKIP Yogyakarta.

Usman, H. 1998. *Administrasi dan Supervisi Pendidikan*. Yogyakarta: FPTK IKIP Yogyakarta.

Wiles, K. 1983. *Supervision for Better Schools*. New Jersey: Englewood Cliffs.

Yulk, G.A. 1994. Leadership in Organizations. New Jersey: Prentice Hall, Inc. Englewood Cliffs.

Continuing Professional Development (CPD) for Physical Education Teacher in Elementary School through Blended Learning

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Abstract: Increasing awareness of the importance of a better learning in physical education for elementary school students, undoubtedly drives the increasing the professionalism of teacher. In developing and improving teacher's professionalism, especially for physical education teacher at the elementary school level, it is necessary to improve the quality of professional teacher through Continuing Professional Development (CPD). CPD is an effort to increase and develop the professional competence of the knowledge, skills, and attitude of teacher in order to be a lifelong learner and teacher. Teachers have personal responsibility to maintain and develop their competencies and skills to provide a better learning for their students. Positive challenge that appeared is the high flows of digital era that requires the teacher's awareness in the digital world. Blended learning is the concepts offered in this article to emerge the dimension of CPD that will be able to bring the learning environment which is integrated by ITC environment in order to promote 21st century skills. The ultimate goal emphasized in this conceptual paper that will be discussed is about implementation of blended learning in CPD to improve the professional competence, skills, and attitude for the physical education teacher at the elementary school.

Keywords: continuing professional development (CPD), physical education teacher, elementary school, blended learning

Education is one of the efforts to improve the quality of the community of a nation. The profession that has the closest relation to educational development is teacher. It is no wonder that teachers become the most crucial components in the educational system due to their strategic position in learning as the primary aspect of education quality improvement. Therefore, it is important for teachers to constantly foster and develop their profession.

The abovementioned should also be done by Physical Education (PE) teachers. One of the most important contents in education is physical education, which can improve the standard of physical health. Physical education represents components of global education, one of which is associated with the development of child health (Smith, 1963; Buck, Jable & Floyd 2004; Dacica, 2015). Thus, teachers should always improve their competence, including their professional competence.

One of the efforts to develop teaching profession is implementing Continuing Professional Development (CPD). According to Unesco's data (2013) in World-wide Survey of School Physical Education, the implementation of CPD policy for Physical Education teachers as a whole has not been optimum in different countries. Unesco (2013) further state that despite opportunities, some teachers tend to object to make an improvement in their learning or to develop their professional competence.

A great number of surveys that have been conducted can help the making of applicable policies on profession in relation to the purpose of continuing professional improvement and development in different countries. Indonesia addresses the concept of teacher professional development in Law Number 14 Year 2005 concerning Teachers and Lecturers Article 32

Paragraph 1, which states "the fostering and development of teachers include the fostering and development of profession and career". In relation to teaching profession, fostering and development are integral. Both are inseparable in the effort to improve the qualification and competence of teachers, especially Physical Education teachers. Furthermore, in accordance with the Regulation of the Minister of National Education Number 16 Year 2007 concerning Academic and Competence Qualification Standards of Physical Education Teachers, either at the elementary school, junior high school or senior high school/vocational high school level, the professional competence required includes the ability to continuously develop professionalism by performing reflective actions and to follow the world's development by learning from various sources.

Some policies regarding CPD for Indonesian teachers are generally manifested in Local Teacher Working Groups (KKG), Technical Guidance (Bimtek), Teacher Education and Professional Training (PLPG), Professional Teacher Education (PPG) and Teacher Learner (Guru Pembelajar). One of the indicators in CPD process is realized through Teacher Competence Test (UKG). The aforementioned serve as an effort to improve teacher professionalism in representing CPD policy in Indonesia.

A practice that deviates from the CPD implementation can be seen from the result of UKG in 2015 that showed an unsatisfactory result of pedagogic and professional competence test. The Ministry of Education and Culture (Maulipaksi, 2016) reveals that the national UKG score in 2015 was 53.02 out of SKM score of 55. This result indicates poor optimization of the CPD that has been implemented despite an improvement from 2012. This obstacle becomes a challenge in optimizing CPD for Physical Education teachers following the world's development.

An effort that can be done is integrating CPD with information and communications technology (ICT). This is due to the fact that ICT is inevitable in the development and advancement of human civilization. According to the results of a survey conducted by the European Commission (2013), the fields in greatest need of professional development are the learning of children with special needs (20 percent) and the development of ICT skill for teaching (18 percent), while the remaining are related to new technology in working environment, multicultural teaching and multilingual setting. Furthermore, the European Commission (2013) reveals that the relationship between teacher professionalism and ICT is investigated in various studies, which show a positive correlation between teacher professionalism and classroom management in the 21st century as well as digital and information and technology literacy.

Indonesia as a developed country is among the top countries within the largest internet use category. A survey conducted in 2015 shows that as many as 88 million Indonesian people (34% of the population) were active internet users (We Are Social, 2016). Recent data show that in 2016 the number of Indonesian internet users was 104.2 million (Statista, 2016). Both surveys show that Indonesia has the largest internet market. This evidence at least serves as a supporting factor for professionalism improvement that is integrated with ICT.

An effort to optimize the professionalism of Physical Education teachers, especially those teaching in elementary schools, can be done through the implementation of CPD that is integrated with ICT. To be precise, the CPD can be implemented by applying Blend Learning (BL). This is because BL emphasizes an integration of face-to-face, offline and online composition. BL becomes a bridge in the CPD for Physical Education teachers due to the importance of face-to-face instruction in addition to ICT-based continuing professional development. This paper contains a review on CPD for Physical Education teachers at the elementary school level through blended learning.

CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

Continuing Professionalism Development

The term for CPD is highly varied depending on the scope. For instance, there is a term *Pengembangan Profesi Berkelanjutan*(PBB) and Continuing Professional Teacher Development (CPTD) that are focused on the continuing professional development of teaching profession (Zubaedah, 2013). Those terms are not completely different because basically, CPD is an umbrella that covers the continuing professional development in all professions, such as health personnel profession. The European Union (EU) issued a report in relation to the results of CPD survey and mapping in the field of health in the period 2008-2013. Based on the results of a survey related to observation of CPD in the health profession, 21 out of 31 countries required the implementation of CPD for nurses, while for doctors, midwives, dentists and pharmacists, only 20 out of 31 countries in which the survey was conducted required the implementation of CPD (European Union, 2013).

Not only in term, has CPD also varied in definition depending on the scope of the setting. Peeke (2000) states that in the scope of higher education, CPD involves further qualification improvement, both formal and non-formal program developments. The importance of CPD especially for teachers is not only apparent in recent days. Hall (1996) states that CPD does not only support teachers in developing new skills, but also help them learn to change the entirety of their way of understanding themselves. The main point of CPD is a constant or continuous process of professionalism improvement. CPD constitutes an effort to improve and develop professional competence related to knowledge, attitude and skills of a teacher to be a life-long teacher and learner. This is because teachers have to continuously improve and develop their competence and skills for better learning.

CPD-related data in the field of education that were issued by the European Commission (2013) reveal an increase in the data collection of TALIS (The Teaching and Learning International Survey) in 2008 as opposed to that of 2013. In 2008, one out of five teachers in five out of nine countries surveyed declared nonparticipation in CPD. This shows that despite the increase, CPD remains facing a number of obstacles, especially from the teacher themselves and the policies governing it. Therefore, it is essential to identify various models of CPD suitable for teachers in order to effectively improve the quality of CPD implementation itself.

The Models of CPD

A clear selection of CPD models allows teachers to improve the quality of the CPD implemented. Lieberman (1995) clarifies three forms of teacher professional development, namely direct teaching (such as courses, workshops, conference etc.), learning at school (such as mentoring, coaching, action research and peer-teaching) and learning outside school (such as network, school collaboration, partnership etc.). Regarding this matter, Kennedy (2005) initiates CPD models that are implemented for the improvement of teacher professionalism, including:

1. training, that leans toward teacher training from instructors;
2. award-bearing, that emphasizes on cooperation with universities;
3. deficit, that emphasizes on the deficit in a teacher that requires development individually;
4. cascade, that emphasizes on the information shared by teachers who have received trainings;
5. Standards-based, that assumes that there is an effective instructional system, and it is not flexible because it is too limiting.

6. coaching/mentoring, a peer-discussion that emphasizes on a good communication skill;
7. community of practice, the main essence distinguishing coaching/mentoring from which is that the number of community members is greater than two;
8. action research, that is related to the action research conducted in the classroom in order to improve learning;
9. Transformative, that is an integration of several CPD models selected based on a careful consideration.

Kennedy (2005) adds that even though the autonomous capacity of professionalism is greater in transformative model, it does not necessarily indicate that professional capacity should be fulfilled. Considering this notion, the selection and use of CPD model must be based on the needs and characteristics of the user. This is done with the purpose of achieving maximum results in the CPD implementation.

PHYSICAL EDUCATION TEACHER AND ICT

Physical Education

Physical education becomes highly important when it comes to the development and physical activity experience from childhood until adulthood. To most adults, the experience of physical education gained at school affects their life style at present time (during adulthood) (Pestolesi & Baker, 1990). This is because physical education serves as a bridge for childhood and adolescence (Siedento, Mand & Taggart, 1986).

Physical education is in general related to physical manipulation (Smith, 1963; Bucher & Krotee, 2002). Dwiyogo (2001), on the other hand, emphasizes that the essence of physical education is the education itself. Physical education is defined as a process in which students are educated to be physically and mentally healthy through physical activities. Pestolesi & Baker (1990) reveal that physical education attempts to understand and predict the impact of physical movements through the study and application of sciences. In general, there are a number of elements of physical education, including wellness, health, sports, exercise, athletics, recreation and other areas used in physical activities for enriching physical, cognitive, social and emotional conditions of a person in improving his or her well-being (Buck, Jable & Flyod, 2004), which are presented in accordance to the needs of the community (Pestolesi & Baker, 1990).

Regarding the urgency of general definition and goals of physical education, it is no wonder that proper physical education should be carried out since early stage, especially at the elementary school level. Physical education learning in elementary school becomes a vital part of child life (Smith, 1963). Buck, Jable & Floyd (2004) emphasize that it is important that physical education teachers become role models of their students when it comes to healthy life. Therefore, a teacher must know different needs of students in teaching physical education at school.

Physical Education Teacher and ICT Integration

The challenge for physical education in the future is partly related to the better use of technology (Buck, Jable & Floyd, 2004). Various studies show that Physical Education is not only limited to face-to-face condition in the learning, but also innovation in relation to technology integration by physical education teachers. The emerging support is through the technology mastery of physical education teachers and prospective physical educational teachers that is perceived to be high (Varol, 2014; Herguner, 2016).

The technology integrated into physical education is in general associated with the use of computer, physical activity monitor and video feedback such as PPT, video, YouTube, Pedometers, Heart Rate Monitor and Coaches Eye (Baert, 2014). Besides, some studies also show a positive improvement in the results of body movement or improvement in learning quality in physical education that is integrated with technology, not only through audio-visual media (Meureta & Meureta, 2013) and multimedia (Chen & Xia, 2012), but also games. The games referred to are Exergames (Gibbs, Quennerstedt & Larsson, 2016) and Nitendo Wii (Perlman, Forrest & Pearson, 2012).

A lot of advantages can be obtained from the integration of technology into education. However, the technology that is not properly implemented will otherwise hinder the learning process (Baert, 2011). As commonly known, the technology used has different characteristics and functions. Therefore, the right selection of technology must be the main consideration in the integration of ICT into physical education.

BLENDED LEARNING TO PROMOTE CPD FOR PE TEACHER

Blended Learning

Blended learning becomes an alternative among many learning programs available today, and it is no longer new. BL is a learning program that combines face-to-face learning with online learning (Sighn, 2003). On the other hand, Driscoll (2002) defines blended learning in a wider term dependent on its scope, either in media or learning. Dwiyogo (2014) states BL in general constitutes a learning program that combines face-to-face, offline and online learning.

BL serves as an answer for the obstacle related to the lack of direct interaction in the online-based learning. The positive impacts of this learning program for teachers may include the ability to improve teacher performance, communication and ease in learning flexibility (Cholifah, 2016). Through BL, learning can be accessed anywhere and anytime. Nevertheless, studies also reveal that the obstacles in the BL application are generally associated with the lack of facility and infrastructure as well as teachers' unpreparedness related to ICT literacy (Cholifah, 2016).

CPD with Blended Learning

The implementation of CPD through BL can be based on the learning in the 21st century. Teachers as professionals must also be able to completely accommodate themselves by continuously improving their competence. BL serves as a way in the implementation of CPD in the digital era. CPD models, either in the form of coaching, training, mentoring, network, workshop or any other activity can be accommodated through BL application. Traditionally, CPD model requires full face-to-face learning, but with the application of BL, the face-to-face, offline and online composition only needs some adjustment based on the needs of the users. Armellini & Stefani (2016) reveal the results of their study related to CPD area in BL that uses Garrison's concept, which consists of teaching, social and cognitive presence that both learning and cognition tend to be "more social". This is inseparable from the characteristics of BL itself which also combines face-to-face, offline and online learnings.

In relation to teaching presence, one thing that can be done using BL is remote learning. The integration through Distance Physical Education Program (DPEP) allows physical learning to be carried out with the help of ICT (Kizilet, 2010). Meanwhile, offline learning can be done through audio-visual media and multimedia (Chen & Xia, 2012; Maureta & Maureta, 2013).

There is a high chance that with technology, things that normally can only be done face-to-face finally can be done online or offline.

In the context of social presence, another effort that can be done through BL is especially Professional Learning Community (PLC). PLC is closely related to peer-supervision which requires communication between teachers in CPD implementation. Twinning et al (2013) state that ICT is perceived as an opportunity to introduce a new goal regarding the base of discussion held for the development of teacher professionalism. The use of mobile phone also makes it easy for teachers to share experience and knowledge in CPD workshop (Ekanayake & Wishart, 2015). Another effort can be done by using social media such as Facebook, Twitter and others with the purpose of strengthening learning community.

CPD emphasizes on continuous effort to develop professionalism. Related to this matter, the aspect of cognitive presence must always be improved and updated by constantly developing and improving the competence of physical education teacher. Armour, Makopoulou & Chambers (2012) state that if physical education teachers are expected to be able to grow and develop as professionals in their carrier, they should be supported with CPD system which facilitates professional growth in different supporting learning contexts. All of that must also support the area of cognitive presence because teachers are life-long learners as well.

CONCLUSION

An effort that can be done in the optimization of physical education teachers at elementary school in particular is implementing CPD that is integrated with ICT. CPD is an effort to improve and develop professional competence related to the knowledge, attitude and skills of a teacher to be a life-long teacher and learner. CPD models, either in the form of coaching, training, mentoring, network, workshop or any other activity, can be accommodated through BL application. This is because BL emphasizes on the integration of face-to-face, offline and online composition. This is due to the fact that teachers have to constantly improve and develop their competence and skills for better learning. In relation to teaching presence, one thing that can be done using BL is remote learning or the implementation of offline learning using interactive multimedia or audio-visual media. In the context of social presence, another effort that can be done through BL is especially related to Professional Learning Community (PLC). As another effort, CPD can be done using social media such as Facebook, Twitter or others with the purpose of strengthening the network of learning community. All of that must also constantly support the area of cognitive presence because teachers are life-long learners as well. The implementation of CPD through BL is expected to be able to improve the competence, skills and professionalism of physical education teachers at the elementary school level.

REFFERENCES

Armellini, A. & Stefani, M.D. 2016. Social presence in the 21st century: An adjustment to the Community of Inquiry framework. *British Journal of Educational Technology*, 47(6), 1202–1216. doi:10.1111/bjet.12302

Armour, K., Makopoulou, K., & Chambers, F. 2012. Progression in physical education teachers' career-long professional learning: Conceptual and practical concerns. *European Physical Education Review*, 18(1), 62–77. doi:10.1177/1356336X11430651

Baert, H. 2011. The Integration of Technology within Physical Education Teacher Education: Perceptions of the Faculty. *Theses and Dissertations*, Paper 203. Retrieved from http://scholarworks.uark.edu/cgi/viewcontent.cgi?article=1202&context=etd

Baert, H. 2014. The Effects of Role Modeling on Technology Integration within Physical Education Teacher Education. *JTRM in Kinesiology,* (2014), 1-26. Retrieved from http://files.eric.ed.gov/fulltext/EJ1053415.pdf

Bucher, C.A. & Krotee M. L. 2002. *Management of Physical Education and Sport.* Boston: McGrawHill Higher Education

Buck, M.M., Jable, J. T., & Flyod, P. A. 2004. *Introduction to Physical Education and Sport: Foundations and Trends*. Belmont, CA: Wadsworth-Thomson

Chen, S. & Xia, Y. 2012. Research on Application of Multimedia Technology in College Physical Education. *Procedia Engineering,* 29(2012), 4213–4217. doi:10.1016/j.proeng.2012.01.645

Cholifah, P.S. 2016. Impressions of Student and Teacher in Blended Learning. *Proceeding International Conferences on Education and Training*. Paper presented at 2nd International Conferences of Education and Training (ICET): Improving The Quality of Education and Training Through Strengthening Networking, Malang, 4-6 November 2016, 655-663. Malang: Faculty of Education, State University of Malang

Dacica, L. 2015. The Formative Role of Physical Education and Sports. *Procedia - Social and Behavioral Sciences*, 180, 1242-1247. doi:10.1016/j.sbspro.2015.02.256

Driscoll, M. 2002. Blended learning: Let's get beyond the hype. *E-learning*, 1(4), 1-3. Retrieved from https://www-07.ibm.com/services/pdf/blended_learning.pdf

Dwiyogo, W.D. 2001. *Pembelajaran Pengetahuan Kesegaran Jasmani.* Malang: Wineka Media

Dwiyogo, W.D. 2014. Analisis Kebutuhan Pengembangan Model Rancangan Pembelajaran Berbasis Blended Learning (PBBL) untuk Meningkatkan Hasil Belajar Pemecahan Masalah. *Jurnal Pendidikan dan Pembelajaran*, 21(1), 71-78

Ekanayake, E.S. & Wishart, J. 2015. Integrating mobile phones into teaching and learning: A case study of teacher training through professional development workshops. *British Journal of Educational Technology*, 46(1), 173–189. doi:10.1111/bjet.12131

European Commission. 2013. *The Teaching and Learning International Survey (TALIS) 2013: Main findings from survey and implications for education and training policies in Europe.* Retrieved from: http://ec.europa.eu/dgs/education_culture/repository/education/library/reports/2014/talis_en.pdf

European Union. 2013. *Study Concerning The Review and Mapping of Continuous Professional Development and Lifelong Learning for Health Professionals in The EU.* Retrieved from http://ec.europa.eu/health//sites/health/files/workforce/docs/cpd_mapping_report_en.pdf

Gibbs, B., Quennerstedt, M., & Larsson, H. 2016. Teaching Dance in Physical Education Using Exergames. *European Physical Education Review,* 2016, 1-20.

Hall, V. 1996. Learning to Learn: Direction to CPD. *Management in Education*, 10(4), 3-4. Retrieved from http://journals.sagepub.com/doi/pdf/10.1177/089202069601000401

Herguner, G. 2016. Tablet Computer Literacy Levels of the Physical Education and Sports Department Students. *Malaysian Online Journal of Educational Technology*, 4(2):58-65. Retrieved from http://www.mojet.net/frontend//articles/pdf/v4i2/v4i2-5pdf.pdf

Kennedy, A. 2005. Models of Continuing Professional Development: a framework for analysis, *Journal of In-service Education*, 31(2), 235-250

Kizilet, A. 2010. Using Distance Physical Education in Elite Class Soccer Referee Training: A Case Study. *The Turkish Online Journal of Educational Technology (TOJET)*, 10(3), 329-339. Retrieved from http://files.eric.ed.gov/fulltext/EJ945008.pdf

Lieberman, A. 1995. Practices that support teacher development: Transforming conceptions of professional learning. *Phi Delta Kappan*, 76(8), 591-596. Retrieved from http://www.jstor.org/stable/20405409

Maulipaksi, D. 2016. *7 Provinsi Raih Nilai Terbaik Uji Kompetensi Guru 2015.* Rretrieved from http://www.kemdikbud.go.id/main/blog/2016/01/7-provinsi-raih-nilai-terbaik-uji-kompetensi-guru-2015

Meureta, C. & Meureta, A. 2013. Psychomotor Stimulation of Students in Physical Education Using Audiovisual Media. *Procedia - Social and Behavioral Sciences*, 84(2013), 1611-1616. doi: 10.1016/j.sbspro.2013.06.798

Peeke, G. 2000. *Issues in Continuing Professional Development: Towards a Systematic Framework*. London: EFDA

Peraturan Menteri Pendidikan Nasional Nomor 16 Tahun 2007 tentang Standar Kualifikasi Akademik dan Kompetensi Guru

Perlman, D., Forrest, G., & Pearson, P. 2012. Nintendo Wii: Opportunities to put the Education back into Physical Education. *Australian Journal of Teacher Education*, 37(7), 85-94. Retrieved from http://ro.ecu.edu.au/ajte/vol37/iss7/7

Pestolesi, R.A. & Baker, C. 1990. *Introduction to Physical Education: a contemporary careers approach, 2nd edition.* Illinois: Scott, Foresman, and Company

Siedento, D., Mand, C., & Taggart, A. 1986. *Physical Education: Teaching and Curriculum Strategies for Grades 5-12.* Palo Alto, CA: Mayfield Publishing Company.

Sighn, H. 2003. Building Effective Blended Learning Programs. *Issue of Educational Technology*, 43(6), 51-54. Retrieved from: http://asianvu.com/bookstoread/framework/blended-learning.pdf

Smith, P. 1963. Physical Education in Elementary School: Trends an Challenge. *Educational Leadership,* 368-371. Retrieved from: http://www.ascd.org/ASCD/pdf/journals/ed_lead/el_196303_smith.pdf

Statista. 2016. *Number of Internet Users in Indonesia from 2015 to 2012 (in Millions).* Retrieved from https://www.statista.com/statistics/254456/number-of-internet-users-in-indonesia/

Twining, P., Raffaghelli, J., Albion, P., & Knezek, D. 2013. Moving education into the digital age: the contribution of teachers' professional development. *Journal of Computer Assisted Learning*, 29, 426–437. doi: 10.1111/jcal.12031

Undang-Undang Nomor 14 Tahun 2005 tentang Guru dan Dosen

Unesco. 2013. *World-wide Survey of School Physical Education: Final Report 2013*. Retrieved from http://unesdoc.unesco.org/images/0022/002293/229335e.pdf

Varol, Y.K. 2014. The Relationship between Attitudes of Prospective Physical Education Teachers Towards Education Technologies and Computer Self-Efficacy Beliefs. *The Turkish Online Journal of Educational Technology (TOJET)*, 13(2), 157-167. Retrieved from http://files.eric.ed.gov/fulltext/EJ1022937.pdf

We Are Social. 2016. *Digital in APAC 2013: We Are Social's Compendium of Digital, Social, and Mobile, Data, Trends, and Statistics around APAC in September 2016.* Retrieved from http://www.slideshare.net/wearesocialsg/digital-in-apac-2016

Zubaedah, S. 2013. Lesson Study sebagai Bentuk Program Continuing Professional Development (CPD) dan Peningkatan Pembelajaran Siswa. *J-TEQIP,* IV(2), 102-118. Retrieved from http://teqip.com/wp-content/uploads/2014/12/103-118-IPA-B.-Siti-Zubaidah.pdf

Developing Critical Thinking Skills Test for Undergraduate Biology Student

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Abstract: Critical thinking is the main capability that must be owned by the people in 21stcentury. The importance of critical thinking skills is must be prepared for the students as young age,including the Biology students as candidate researcher.Critical thinking skills are important for a researcher to be able to solve problem and make right decision. This research aims to developing instruments to measure critical thinking skillsbiology students. The Instrument developed refer to indicators of Watson-Glaser Critical Appraisal Thingking (WGCTA). Stages of development by make the test based of critical thinking indicators, trial test, and analysis of the test. The results of trial test with 90 students biology concluded that instrument critical thinking skills which consists of 23 multiple choice question this is valid and reliabel, so that it can be used to measure the critical thinking skills of biology students.

Keywords: critical thinking, instrument, WGCTA, biology student

The 21st century is an era of globalization and internationalization (Osman et al., 2010; Fong et al., 2014), people will face competition and global issues, so that every person is important to have 21st century skills (Sahin, 2009; Pheeraphan, 2013). Some of the 21st century skills are critical thinking, creativity, communication, collaboration, communications technology mastery, and life and career skills (The Partnership for the 21st Century Skills, 2007).

The main skill that must be owned by people in the 21st century is critical thinking (Jerald, 2009; Thompson, 2011; Fajrianthy et al., 2016), because it associated with the problem solving process (Friedel 2008) that occurred in the daily life, work, and all other aspects of life (Slameto, 2014). The importance of critical thinking skills can help people to succeed in their life and work (The Partnership for the 21st Century Skills, 2009; Moses et al., 2012; Turiman, 2012; Dass, 2014; Ay et al., 2015) so, the critical thinking skills need to be prepared especially for the young generation (NCREL and Meitri Group, 2003; The Partnership for the 21 st century skills, 2009; Rodzalan and Time, 2015) including the Biology students.

Biology nowadays has great potential in contributing to resolve global issues such as health, food, energy, and environment (AAAS, 2011; Osman et al., 2012). Therefore, it is important Biology students as candidates of biological researchers to develop critical thinking skills so that students can solve problems in biological life. The importance of critical thinking skills for Biology students can shape the process of thought into fast, accurate, and free of assumptions, especially when they are able to solve problems critically and to determine decisive decisions and appropriate actions (Caroselli, 2009), critical thinking skills are also the basic skills in problem-solving in the research (Thompson, 2011; Facione, 2011).

Nowadays, the importance of the development in critical thinking skills for the Biology students have several obstacles, that critical thinking skills are rarely taught officially in class (Addy et al., 2012). In addition, according to the observations of researchers in measuring skills, critical thinking especially for the Biology students is still rarely implemented because of the absence of a standardized test instruments. According to Fajrianthy et al (2016), the

measurements of critical thinking skills in Indonesia encountered some problems, for example: the context of measurementis quite diverse, the measurements that are likely adapt some tests developed by western countries without testing it first (if this test contains a cultural bias or not), the measurement of critical thinking development in Indonesia is mostly implemented in the educational setting of mathematics and physics.

The measurement problems of critical thinking skills in general has become a controversy of experts in the fields of psychology, philosophy, and education (Fajrianthy et al., 2016). The controversy was caused by definitions and indicators for measuring critical thinking skillswhich are still very diverse (Wagner, 2002). Halpern (1999) stated that even when the definition of critical thinking skillsaccording to experts was very diverse, but basically it has the similar basic principles.

There are some experts who have different opinions about the definition and indicators of critical thinking skills. Ennis (1985) defined that critical thinking skills are as reflective and reasonable thinking which focuses on deciding what to believe or do. It isalso a skill which can be measured by indicators that covers basic clarification (which focuses on a question, analyzes arguments, asks and answers clarification and / or challenges questions), bases for a decision (judge the credibility of a source, Observe, and judge observation reports), inference (deduce and judge deduction, induce and judge induction of make material inferences, make and judge value judgments important factors), advanced clarification (define terms and definitions judge, attribute unstated Assumptions), supposition and integration (suppositional thinking, integrate the dispositions and other skills in making and defending a decision). Facione (2000) then stated that critical thinking skillsare defined as a skill to do judging in a reflective way on what to do or what to believe, which can be measured by indicators that cover analysis, inference, evaluation, deductive reasoning, and inductive reasoning. Furthermore, Watson and Glaser (2012) have also defined the critical thinking skills as the ability to identify and analyze problems as well as it seeks and evaluates relevant information in order to reach an appropriate conclusion, which also can be measured by indicators that cover inference, recognition assumption, deduction, interpretation, evaluation of arguments.

The different understanding of some experts about the critical thinking skills puts many suppression to the description of the indicators than to the fundamental difference. The experts then have agreed that the critical thinking skills basically consist of skills to analyze an argument, to make an either inductive or deductive conclusion, to evaluate and make decisions or solve problems (Lai, 2011). The existence of the controversy makes an important challenge for the university to develop an accurate measurement instrument in reflecting the teaching and learning as well as the practices that have been implemented on the campus. (Stassen et al., 2011).

The definitions and indicators to measure critical thinking skills that are widely accepted and often used are the Watson-Glaser Critical Thinking Appraisal (WGCTA) (Wagner, 2002). Some studies have also shown that WGCTA can be used as a tool for critical thinking skills (Husband, 2006; Ejiogu et al., 2006). WGCTA is a psychometric test of critical thinking and reasoning, these tests measure skills related to the problem solving and decision making in different types of questions (Watson and Glaser, 2012).

Based on the problems described above, it can be concluded that the importance of critical thinking skills for Biology students led to the need of critical thinking skills test instruments for Biology students. The purpose of this research is to develop critical thinking skills test instruments for Biology students to be valid and reliable so that it can produce accurate measuring result.

METHOD

This research is a developmental research that will develop critical thinking skills test instruments for Biology students. Stages of development refer to the stages by Hambleton and Jones (1993) with modifications, as follows.

Preparation of Test Specification

The first phase was done by determining indicators of critical thinking skills that are used as the basis of measurement, formulate the indicator in the form of test items. Based on the results of the review, researchers referred indicators of critical thinking skills by Watson and Glaser (2012), which consisted of five indicators (Table 1.1), as follows.

Table 1.1 Indicators of Critical thinking skills

Indicators	Explanation
Making inference	Assessing whether the inference is "definitely true," "may be true," "may be wrong," or "definitely wrong," according to a statement, or is "not enough data" to draw the inference.
Identifying assumption	Assessing whether an assumption is appropriate with the statement
Deductive reasoning	Assessing whether the deductive conclusion of a statement is true or not
Interpreting argument	Assessing about the conclusion "no doubt" of another statement.
Evaluating argument	Assessing whether an argument is classified as "strong" or "weak."

(Source: Watson dan Glaser, 2012).

This stage also determined the specifications of the context and the form of the developed instruments. The developed test instruments were in the form of test items which wereadapted to the context of Biology in general. Furthermore, the test items were developed in the form of multiple choice tests according to the pattern of WGCTA.

Preparing the Test Items

This phase was done by developing test items from each indicator of critical thinking skills. Researchers developed 10 items for each indicator. Finally, researchers produced a test instrument with a total of 50 items.

Small scale Try-out and Test Items Analysis

This phase was done by trying out the test instruments that were developed as intended to determine the weaknesses in such instruments. The try-outwere administered to the 25 Biology students at State University of Malang. The results of further try-outwere analyzed based on the level of validity, reliability, standard deviation, and the level of difficulty in the test items. The results of the analysis were used as a basis of test improvement.

Test Items Revision

This phase was done by identifying the questions with a low level of validity (invalid).

The revisions were carried out by revising the test items based on the language and the clarity of items. The revision aimed to improve the test items so that it was easy to understand and did not give an ambiguous statement. Thus, when the test items will be tried out again on a larger scale, it will make the results of test items analysis better.

Large Scale Try out and Final Analysis of Test Items

This phase was implemented by trying out the revised test items to the students in a larger scale. The try out was conducted to the 90 Biology students at State University of Malang. A large trial results were then analyzed based on the level of validity, reliability, standard deviation, and the level of difficulty of the test items.

Printing and Distributing Test

This stage was the last stage, which was completely done by printing and distributing tests that had been declared as valid and reliable test.

Findings and Discussion

The test instruments of critical thinking skills for Biology students were developed with multiple-choice forms that refers WGCTA pattern. The context's content used in the test instruments was Biology in general. The test instruments consisted of 50 items, divided into five indicators of critical thinking skills. The examples of the test items for each indicator are as follows.

Indicator 1: Inference
Statement
A greenhouse worker discovered that the chrysanthemum plant located on the edge of the shelf often produces flowers which are shorter than flowers of the chrysanthemum plant located in the center of the shelf. The differences condition of the location between on the edge of the shelf and on the center are the light intensity and the airflow. The light intensity and the airflow on the center of the shelf are lower than on the edge of shelf.
Assumption

The chrysanthemum plant located in the center of shelf will continuously produce high flowers even when it will be displaced to the edge of the shelf.	True	Probably True	Insufficient Data	Probably False	False

Indicator 2: Recognition of Assumptions
Statement
The presence of soil bacteria and mycorrhizae can improve plant nutrition by making a certain amount of minerals which are available for plants. For example, many types of soil bacteria are involved in the nitrogen cycle, while mycorrhizal hyphae provides broader surface area for the absorption of nutrients, especially phosphate ions.

Assumption

The absence of mycorrhiza on the roots of plants effected the plants are not able to absorb nutrients. True False

Indicator 3: Deduction

Statement

Climate change can increase the growth of plant hoppers. The increase of plant hoppers can cause crop failure.

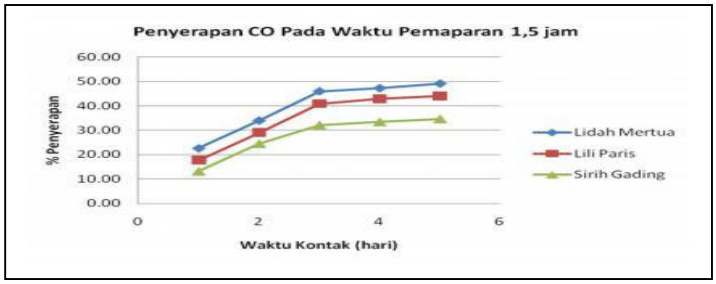
Conclusion

Planthopper population increase due to climate change True False

Indicator 4: Interpretation

Data

A study aims to determine the ability of decorative plants to absorb carbon monoxide, by using Sansevieria sp (tanaman lidah mertua), Spider plant (lili paris) and Scindapsus aureus (sirih gading) in an exposure time of 1.5 hours to produce a graph as follows.



Conclusion

The longer the contact time, the increase of the absorption is getting significantly. Yes No

Indicator 5: Evaluation of Arguments

Statement

A researcher examines the effect of fertilizer containing iron (Fe) on the plant growth. There are three groups and each group contained 10 plants. Group 1 uses fertilizer in sufficient quantities, group 2 uses less fertilizer, and group 3 has very much amount of fertilizer. The results showed that with plants little amount of fertilizer have the greatest growth. Thus, the researchers concluded that the fertilizer with iron content is better than fertilizer with nitrogen content. Strong Weak

The try out results show that small-scale test instrumentsthat have been developed is still not good. This is seen in the results of the test items validity analysis, which indicate that there are only 9 items classified as valid. The results of the analysis are then used as the basis of test items improvement in the revision stage. Furthermore, the revised test instruments areretried out on a large scale. The results of the analysis of large-scale trial are below, as follows.

Validity

The results of the validity analysis which used the Pearson correlation showed that there were 23 items classified as valid (sig <0.05). The 23 items consisted of 4 items as the indicator of the ability to make inferences, 6 items as the indicator of the ability to recognize assumptions, 6 items as the indicator of the ability of deductive reasoning, 4 items as the indicator of the

ability to interpret the arguments, 3 items as the indicator of the ability to evaluate arguments. The results of the 23 test items' validity analysis which were classified as valid can be seen in Table 1.2.

Table 1.2 Validity Analysis of Test items

Indicator	No. of Item test	Sig.
Making inference	1	0,015
	2	0,000
	3	0,035
	4	0,006
Identifying Assumption	5	0,000
	6	0,000
	7	0,000
	8	0,000
	9	0,009
	10	0,021
Deductive reasoning	11	0,018
	12	0,022
	13	0,005
	14	0,029
	15	0,004
	16	0,033
Interpreting argument	17	0,000
	18	0,000
	19	0,001
	20	0,000
Evaluating argument	21	0,000
	22	0,014
	23	0,001

The test items used in a multiple-choice test must be valid, it must be able to measure what to measure (Considine et al., 2005; Guidance, 2010). The results of the analysis showed that the validity of each indicatorof critical thinking skills had items classified as valid, so the 23 items were ready to be used for critical thinking skills test instruments for Biology students.

Reliability

The test items used in multiple-choice test must be reliable. By all means, it has to be consistent in measuring the same thing (Considine et al., 2005; Guidance, 2010). The results of the reliability analysis by using Cronbach's alpha indicated that the developed test instruments gotthe reliability value of 0.588. The reliability value indicated that the instruments classified in the category "quite reliable". Although the reliability of analysis results indicated that the developed test instruments got the high value of reliability (r> 0.7-1.0), but according to Watson and Glaser (2012), the test instruments with the reliability value less than 0.7 those instruments could already be implemented but on a limited scale. In addition, the instrument could also be used as an instrument for measuring the development of critical thinking skills. Based on the results of reliability analysis, the developed test instruments couldalready be used for critical thinking skills test instruments for Biology students.

Standard Deviation

The standard deviation analysis results of test items by using Pearson correlation with the reference category criteria Kolte (2015), showed that there were 10 items with different standard deviation in the excellent category (P> 0.35) and 13 items in good categories (0.20 <P> 0.35). The standard deviation analysis results of the test items can be seen in Table 1.3.

Table 1.3. The Standard Deviation Analysis of Test items

Indicator	No. Test Item	Standard Deviation (P)	Category
Making inference	1	0,256	Good
	2	0,393	Excellent
	3	0,223	Good
	4	0,286	Good
Identifying assumption	5	0,400	Excellent
	6	0,383	Excellent
	7	0,378	Excellent
	8	0,393	Excellent
	9	0,275	Good
	10	0,243	Good
Deductive reasoning	11	0,249	Good
	12	0,241	Good
	13	0,294	Good
	14	0,231	Good
	15	0,299	Good
	16	0,225	Good
Interpreting argument	17	0,464	Excellent
	18	0,565	Excellent
	19	0,357	Excellent
	20	0,412	Excellent
Evaluating argument	21	0,400	Excellent
	22	0,258	Good
	23	0,343	Good

The standard deviation analysis results of test items indicated that the test items which were valid had no poor quality in the standard deviation (P <0.2). Thus the test items with a value of P <0.2 were already acceptable and able to distinguish between students who have high ability and low ability (Mitra et al., 2009; Karelia dkk.2013). Based on the standard deviation analysis results of test items, it could be stated that the 23 items can already be used for critical thinking skills test instruments for Biology students.

Level of difficulty

The analysis results of the level of difficulty in the test items referring to the category criteria by Kolte (2015) indicated that there were 5 items classified in the category 'difficult' (p <0.3), 9 items were classified in the category of 'fair' (0.3 <p <0.7) , 9 items fall into 'easy' categories (p> 0.7). The analysis results of the level of difficulty in the test items can be seen in Table 1.4.

Table 1.4. The Analysis of Level of Difficulty in the Test Items

Indicator	No. test items	Difficulty index	Category
Making Inference	1	0,36	Fair
	2	0,46	Fair
	3	0,24	Difficult
	4	0,21	Difficult
Identifying assumption	5	0,46	Fair
	6	0,77	Easy
	7	0,94	Easy
	8	0,27	Difficult
	9	0,48	Fair
	10	0,40	Fair
Deductive Reasoning	11	0,97	Easy
	12	0,88	Easy
	13	0,96	Easy
	14	0,30	Fair
	15	0,11	Difficult
	16	0,71	Easy
Interpreting argument	17	0,37	Fair
	18	0,77	Easy
	19	0,50	Fair
	20	0,28	Difficult
Evaluating Argument	21	0,78	Easy
	22	0,32	Fair
	23	0,92	Easy

The analysis results of the level of difficulty in the test items showed that 23 items had a level of difficulty to the category of difficult, fair and easy. According to Boopathiraj and Chellamani (2013) items in a test should not be too difficult or too easy, so there must be a balance between those categories. Results of the analysis showed that the ratio of the level of difficulty in the test items was in the category of difficult, fairand easy is 5: 9: 9. Thus, it could be stated that the proportion is quite balanced, so it can be used for critical thinking skills test instruments for Biology students.

The results of the overall analysis in the test items can be concluded that there were 23 items that can be used for critical thinking skills test instruments for Biology students. However, this study had some limitations, so it needed to be re-examined at the next study. These limitations are;

1) The subjects of the try-out were limited only for the Biology students in State University of Malang. However, the accreditation of Biology program study in State University of Malang is A (very excellent), so that the results of the try-out are expected to be used to measure students' critical thinking skills in the majors biology / biology courses at other universities which have accreditation A and B. Furthermore, further research is expected to be tried out by involving Biology students in broader and wider universities.
2) The number of subjects in a large-scale try-out is limited only to 90 students. The next study is expected to increase the number of test samples. The more samples are used it will be a great opportunity to get a more accurate result (Sumanto, 2012).
3) The indicators of critical thinking skills that can be measured are limited to the indicators according to Watson and Glaser (2012). The instrument cannot measure indicators of critical thinking skills according to some other experts that have different indicators with Watson and Glaser (2012). For example the indicator to make a conclusion through induction by

Ennis (1985) and Facione (2000). However, Lai (2011) stated that in general, in terms of making a conclusion, it can be done inductively or deductively.

There were several limitations of the research development in critical thinking skills test instruments, but these studies had produced 23 items that were valid, reliable enough, the standard deviation that had been unacceptable, and the level of difficulty which was quite proportional. Test instruments referring to WGCTA patterns can be used as a test development of critical thinking skills, which is a test that can determine a student's strengths and weaknesses so that the results can be used as a basis for the development of critical thinking skills with appropriate learning activities (Watson and Glaser, 2012). In addition, the test instrument can also be used for research purposes (Wagner, 2002), particularly those which aimed at measuring the critical thinking skills of Biology students.

CONCLUSIONS

The development of critical thinking skills test instruments for Biology student which refer to the indicators and patterns WGCTA and the content in the form of general biological context, produced 23 valid items (Sig. <0.05) and quite reliable (0.588). The test instrument can be used as an instrument for the development of critical thinking skills in biology lectures, or for the benefit of research that aims to measure students' critical thinking skills in biology.

REFERENCES

Addy, T.M. & Stevenson, M.O. 2012. Implementation of Critical Thinking Exercises in Introductory Biology. *Proceedings of National Association of Biology Teachers 2012 Research Symposium*: NABT Four-Year College & University Section's.

American Association for the Advancement of Science. 2011. *Vision and Change in Undergraduate Biology Education a Call to Action*. Washington DC: Directorate for Education and Human Resources.

Ay, F.A., Karakaya, A. & Yimaz, K. 2015. Relations Between Self-Leadership And Critical Thinking Skills. *Procedia-Social and Behavioral Sciences.* 207: 29-41.

Boopathiraj & Chellamani. 2013. Analysis of Test Items on Difficulty Level and Discrimination Index in The Test For Research in Education. *International Journal of Social Science & Interdisciplinary Research*. 2(2): 189-193

Caroselli, M. 2009. *50 Activities for Developing Critical Thinking Skills*. Canada: Complimentary Resources from HRD Press.

Considine, J., Botti, M., Thomas, S. Design, Format, Validity, and Reliability of Multiple Choice Questions for Use in Nursing Research and Education. *Collegian*. 12 (1): 19-24

Dass, R. 2014. Literature and the 21st Century Learner. *Procedia-Social and Behavioral Sciences*. 123: 289-298.

Ejiogu, K.C., Yang, Z., Trent, J., & Rose, M. 2008. *Understanding the Relationship Between Critical Thinking and Job Performance Critical Thinking and Job Performance*. New Jearsey: Pearson.

Ennis, R.H. 1985. A Logical Basis for Measuring Critical Thinking Skills. *Educational Leadership.* 43(2): 44–48.

Facione, P.A. 2000. The Disposition Toward Critical Thinking: Its Character, Measurement, and Relation to Critical Thinking Skill. *Informal Logic*. 20 (1): 61–84.

Facione, P.A. 2011. *Critical Thinking : What It Is and Why It Counts*. Millbrae: Measured Reasons and The California Academic Press.

Fajrianthy, H.W. & Septarini, B.G. 2016. Developing Critical Thinking Test Utilising Item Response Theory. *Jurnal Penelitian dan Evaluasi Pendidikan*. 20 (1): 45-55

Fong, L.L., Sidhu, G.K., & Fook, C.Y. 2014. Exploring 21st Century Skills among Postgraduates in Malaysia. *Procedia-Social and Behavioral Sciences*. 123:130-138.

Friedel, C., Tech, V. & Eckhardt, E. 2008. Overtly Teaching Critical Thinking and Inquiry-Based Learning: A Comparison of Two Undergraduate Biotechnology Classes. *JournaL of Agricultural Education.* 49(1): 72-84.

Guidance, 2010. *Multiple-Choice Testing as an Assessment Tool*. (Online) (www.wales.gov.uk/publications), diakses tanggal 28 Agustus 2016.

Halpern, D.F. 1999. Teaching for Critical Thinking: Helping College Students Develop the Skills and Dispositions of a Critical Thinker. *New Directions For Teaching And Learning*. 80: 69-74

Hambleton, R.K., & Jones, R.W. 1993. An NCME Instructional Module on: Comparison of Classical Test Theory and Item Response Theory and Their Applications to Test Development. *Educational Measurement: Issues and Practice.* 12(3). 38-47.

Husband, G. 2006. *an Analysis of Critical Thinking Skills in Computer Information Technology Using California Critical Thingking Skills Test*. Menomonie: University of Wisconsin-Stout.

Jerald, C.D. 2009. *Defining a 21st Century Education*. USA: For the Center for Public Education.

Karelia, B.N., Pillai, A., & Vegada, B.N. 2013. The Levels of Difficulty And Discrimination Indices and Relationship between Them in Four-Response Type Multiple Choice Questions of Pharmacology Summative Tests of Year II M.B.B.S Students. *IeJSME*.7(2): 41-46

Kolte, V. 2015. Item Analysis of Multiple Choice Questions in Physiology Examination. *Indian Journal of Basic and Applied Medical Research*. 4(4): 320-326

Lai, E.R. 2011. *Critical Thinking: A Literatur Review*. New Jearsey: Pearson.

Mitra, N.K., Nagaraja, H.S., Ponnudurai, G., & Judson, J.P. 2009. The Levels of Difficulty and Discrimination Indices in Type A Multiple Choice Questions Of Pre-clinical Semester 1 Multidisciplinary Summative Tests. *IeJSME*. 3(1): 2-7

Musa, F., Mufti, N., Latiff, R.A., & Amin, M.M. 2012. Project-based Learning (PjBL): Inculcating Soft Skills in 21st Century Workplace. *Procedia-Social and Behavioral Sciences*. 59: 565-573.

NCREL & Meitri Group. 2003. *enGauge 21st Century Skills: Literacy in the Digital Age*, (Online), (http://www.ncrel.org/engauge.org/engauge), diakses pada tanggal 28 Agustus 2016.

Osman, K., & Marimuthu, N. 2010. Setting new learning targets for the 21st century science education in Malaysia. *Procedia-Social and Behavioral Sciences.* 2(2): 3737-3741.

Osman, K., Hiong L.C., & Vebrianto, R. 2012. 21st Century Biology: An Interdisciplinary Approach of Biology, Technology, Engineering and Mathematics Education. *Procedia-Social and Behavioral Sciences*. 102:188-194.

Pheeraphan, N. 2015. Enhancement of the 21st Century Skills for Thai Higher Education by Integration of ICT in Classroom. *Procedia-Social and Behavioral* Sciences.103: 365-373.

Rodzalan, S.A., & Saat, M.M. 2015. The Perception of Critical Thinking and Problem Solving Skill among Malaysian Undergraduate Students. *Procedia-Social and Behavioral Sciences*: 172: 725-732.

Sahin, M.C. 2009. Instructional Design Principles for 21st Century Learning Skills. *Procedia-Social and Behavioral* Sciences. 1(1): 1464-1468.

Slameto. 2014. Developing Critical Thinking Skills through School Teacher Training "Training and Development Personnel" Model and Their Determinants of Success. *International Journal of Information and Education Technology*. 4(2): 161-166.

Stassen, M.L.A., Herrington, A., & Henderson, L. 2011. *To Improve The Academy*. San Francisco, CA: Jossey-Bass Publishers.

Sumanto, D. 2012. Precision and Accuracy of Results of Quantitative Research Based on The Random Sampling Determination. *Jurnal Litbang Universitas Muhammadiyah Semarang*. Page: 45-53

The Partnership for the 21st Century Skills, 2007. *Framework for 21st Century Learning*. (Online) (http://www.p21.org/our-work/p21-framework), diakses tanggal 28 Agustus 2016.

The Partnership for the 21st Century Skills. 2009. *Framework for 21st Century Learning* . (Online) (http://www.p21.org/our-work/p21-framework), diakses tanggal 28 Agustus 2016.

Thompson, C. 2011. Critical Thinking across the Curriculum : Process over Output. *International Journal of Humanities and Social Science*.1(9): 1-7.

Turiman, P., Omar J., Daud, A.M., & Osma, K. 2012. Fostering the 21st Century Skills through Scientific Literacy and Science Process Skills. *Procedia-Social and Behavioral Sciences*. 59: 110-116.

Wagner, T.A. 2002. Critical thinking: The development of A New Measure. *Thesis*. Blacksburg, Virginia: Virginia Polytechnic Institute and State University.

Watson, G. & Glaser, E.M. 2012. *Watson-Glaser™ Critical Thinking Appraisal User-Guide and Technical Manual*. UK: Pearson Education Ltd.

Pedagogic Base as a Basic in Education of Bahasa Indonesia to Build the Society Who has Skillful Thinking

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Abstract: based on the historical aspect, Indonesian came from the Malay language plus foreign and region languages which were appropriate with the rules of Bahasa Indonesia, and minus foreign and regions languages that were inappropriate with the Bahasa Indonesia rules. Then, BI = BM + X-Y. The general purposes of learning Bahasa Indonesia are a) to have an ability to reveal the idea with using well and correct Bahasa Indonesia in both spoken and written. B) To have a positive attitude through language norms, such as loyalty, pride and awareness to language norm. The particular purpose is to have language's skills covering listening, speaking, reading, and writing skill. The Language functions are to state self-expression, as a communication tool, to create integration, as a social adaptation, to manage social control. Bahasa Indonesia has the position and function as national and state language. Based on the purpose of education or teaching and language function, there are some efforts to keep, maintain, and develop Bahasa Indonesia through an effective development of Bahasa Indonesia program which is effective in creating or building a productive human who has individual and group competency forward sense of belonging, sense of pride, sense of responsibility in the use of Bahasa Indonesia in various of life. Thus, pedagogical base is important to be the implementation of guidance in keeping, maintaining, and developing the purpose and function of language because pedagogic base is an essential science to discuss the basic principles, philosophy and theory of Bahasa Indonesia covering informal, non-formal or informal education. Pedagogic base is the preparation which develop Bahasa Indonesia program for educators candidate. In practicing, teaching of Bahasa Indonesia is perspective, practical, normative, scientific, contextual and situational.

Keyword: pedagogical base, bahasa Indonesia, thinking competent people.

Pedagogic base is an essential science and subject to discuss many fundamental aspect or base in term the basic principles, philosophy and theory (the basic principle; the essentials philosophy and theory). Generally it becomes the base for everyone who is preparing themselves to be a teacher in formal, non-formal or informal education to have the pedagogical competency. The competency which specially is related to ability of teacher to understand about his position as a teacher ability, to understand about the students or private students, ability to choose and apply the pedagogic approach in varieties education situation who their responsibilities.

The general purpose teaching and learning Bahasa Indonesia are : (a) to have competency which express idea with using well and correct Bahasa Indonesia in both spoken and written ; and (b) to have a positive attitude through Bahasa Indonesia, are (1) loyalty, (2) proud and (3) awareness through language norm (Arifin dan Tasai, 1991:1) . Particular purpose is to have the language's skill covering are listening, speaking, reading, writing skills.

The purpose of education or teaching and language function there are some efforts to keep, maintain and develop Bahasa Indonesia through an effective development of Bahasa Indonesia program which is effective in 'creating' or building productive human who has

individual and group competency forward sense of belonging, sense of pride, sense of responsibility in the use of using Bahasa Indonesia in various of life.

Pedagogic base is very important to be implementing of guidance in keeping, maintaining and developing the purpose, language function because pedagogic base is a basic science to discuss the basic principles philosophy and theory of Bahasa Indonesia covering informal or formal. Pedagogic base is preparation which develop Bahasa Indonesia program for educator or educator candidate. In practicing, teaching of Bahasa Indonesia is perspective practical, normative, scientific, contextual and situational.

THEORETICAL FRAMEWORK

Pedagogic Base

Pedagogic is a science which discuss education, it is children education. So, pedagogic try to explain about children education. Pedagogic is theory of children education. Pedagogic is a science which is needed by teacher because they will face the children who is not adult yet. The teacher‘s duty not only teach to give knowledge to students but also develop student’s personality integrated. Teacher develop attitude of mental student, develop student’s conscience so that they are sensitive toward humanism problems, human level, and appreciate each other. The teacher also has to develop student’s skill, life skill in society so that they are able to face every life problems (Sadulloh, 2007:1).

Human as thinking human, use brain in producing and getting knowledge and education. With education, human have more meaning. Human also need education and of course need to be educated. To hold out and continue the life human need education. Human is social creatures that need each other so that they need education for communication. So the purpose of education is to create better individual personality.

One of the important roles in education is educator or teacher role. Teacher is very influence at teaching learning. Generally teacher must fulfill two categories are have capability and loyalties teachers must have the knowledge competency, have teaching theories begin from planning, implementing until evaluation. Other side, teacher must have loyalty toward duty not only in class but also before and after class (Rosyada, 2007: 111).

Pedagogic base is essential science which discusses the basic principles and philosophy and theory. Pedagogic base is the preparation to be educator covering formal informal and non-formal. Specific competency comprehends themselves as educator, comprehend students and apply pedagogic approach every education situation. (Rifa’i, 2013).

Pedagogic base is useful for educator and educator candidate as basic in a) take a decision, b) action c) reduce misunderstanding d) be ready to face student’s need and be ready to face human life and the world always change (Rifa’i, 2013).

Philosophy of Education

The Conceptual framework of education philosophy gives meaning of teaching daily with a long-term commitment and purpose of teaching. Teacher competency apply standard to improve preparing and developing professionalism of teacher to be practitioners reflective, it means that the teacher must think philosophically. Philosophical as a general way to think about life and think which one is right or wrong, good or bad.

Comprehensive philosophy, such as idealism and realism explain about the way the world to see generally included in education. Theory of education often appears from philosophy or

from practical of education specifically. Like school curriculum are including teaching and learning.

The differences between philosophy and theory of education are it is larger and have life concept specifically. Second is focus toward education, so there is not completely philosophy system offered.

a. Idealism view

Idealism is one of the oldest western philosophy, begin from plato (428-347 SM) who teach philosophy in Ancient Greek then in the 19th century in German, Geory W.F. Hegel (1770-1831), a professor teaches students about philosophy of history which is long period in human history represent saying of ideas in absolute minding or God. In America Ralph Waldo Emerson (1803-1882) and Henry David Thoreau (1817-1862) develop version America. Idealism is called transcendentalism that stressed the truth in nature.

Metaphysic idealism believes that reality of spiritual or mental and isn't changed idealism understand more emphasize to spiritual essence or someone's soul, is permanent element from human character which give individual to think and taste. Idealism such as churchman, America use macrocosm concepts. It refers to general thinking, God is creature. Macrocosm is personal thoughts or spirit, limited and inferiority but spiritual and intellectual is a big thing becomes its part. Epistemology idealism believes that ideas which form reality always be in mind absolute or God. When we know something, it means that we are aware to understand about science or ideas. Plato develops epistemology feminism, which we remember from main ideas. The challenges teachers are to submit the questions, investigate and present ideas that challenge students to be aware to knowledge.

The logic of idealism is based on all relationship are a part between absolute and individual mind. Idealism teacher must use educative logic to plan the lesson which begun with general principles or role and use cases or specific examples to explain. If we ask to idealism teacher, how should be we taught. She will answer using Socrates Method. Because it stimulus student's awareness with submitting the new questions.

Idealism refuses consumerism and vocationalism which is very valuable in society and express students intellectual competency and indicate them real values, classic. They are assuring that achievement in high technology doesn't mean final achievement from education.

b. Realism view

An Ancient Greek philosophy Aristotle (383-322 SM) a student of Plato who Develop realism, explain realism isn't thinkable or the proposal doesn't hide in our mind," said Plato. During the middle age s Thomas Aquinas (1224-1274) create a realism synthesis from Aristotle and Christian doctrine which known as Thomism. Scientific Realism bring 21th century. The scientific realism explains that realism be independently which aim is to know and scientific method is the way to get a description accurately about what is the world? And how does it work?

Axiology is to realism, certain roles must manage intelligent rational behavior. Aristotle defines a human as rational animals. Realism logic, teacher can use deductive and inductive logic.

c. Pragmatism View (Experimentalism)

Pragmatism emphasizes the need to test validity or capacity work of our ideas with its Work. One of pragmatism figure is Charles S. Pierce (1839-1914), Wiliam James (1842-1910). Gearge Herbart (1863-1931) and John Dewey (1859-1952). Pierce emphasizes using scientific method to validate empirical ideas, that ideas change probability or what is perhaps happened to make sure. James apply philosophy pragmatism toward phycology, religious and education. Mead emphasize that children develop the lesson through their experiences in surround. Dewey

emphasize pragmatism is called experimentalism of education. Its education purpose is to promote the experience for the optimal human growth.

d. Existentialism View

Existentialism is proses which is more philosophy than systematic philosophy such as idealism, realism. This wiring represent hopeless and wish human feeling. This opinion is called exam personal life. In education, Existentialism encourages a personal reflection to one identity, commitment and someone choosing. Existentialism figure, the popular be written s Jean –Paul Sartre (1905-1980). Begin that "the existence precedes essence" Satre is playwright and philosopher; emphasize the role of human imagination.

e. Postmodernism View

Postmodernism think that modern history period have finished and think that we live in postmodernism era. It is come from German philosophy, philosopher Friedrich Nietzsche (1844-1900) and Martin Heidegger (1899-1976).

Postmodernism refuse metaphysic as history contraction is used to domination of social economy. Epistemology in postmodernism; deconstruct text to find and its using by dominant group and the origin of its use.

Axiology in postmodernism emphasizes the value of marginalized and group value. Implication of education from postmodernism is that school is democratic critique site and social change to empower group that dominated.

Theory of Education

a. Perenialisme which is the rooted to realism understanding, many same features with essentialism as using lesson material send cultural heritage across the generations. The purpose is to send universal truth, eternal and values. Its curriculum is basic skill, liberal art, knowledge, western civilization books. Education application: instruction which performance of transmission, discuss and reflection on eternal truth.

b. Essentialism, it stipulates that the primary school function is keep the achievement of human civilization with teaching students skill and lesson which is in curriculum. Wiliam C Bagley (1872-1946)is a popular professor of educational essentialism, believe that school must teach all students with skill and knowledge that needed in democracy society. Essentialism which is rooted to idealism and realism- its purpose is to develop basic skill reading-writing and the material lesson in curriculum is basic skill, main lesson such as history, math, language, science and computer. Implication of education is to prepare personal who competent and skill for global economy that is competitive.

c. Progressivism, it is from a reformation movement in America society and politic at last 19 centuries and begins 20 centuries. Although they opposite traditional education and want to reform the school. The purpose is to educate individual based on their need. Application of education is instruction which serve problem solving and group activities, Teacher acted as facilitator

d. Critical theory, it is theory which very influence toward education, sharp critical to school and society express the relation exploitative powerful and bring about even of fair and social fair. Many assumptions come from postmodernist and existentialist philosophy, neo Marxism, feminist theory and multicultural. Paulo Ferries talk about pedagogic release. Henry Giroux and Peter McLaren pioneered philosophers of critical theory.

Karl Marx is a important philosopher in 19th century have influenced critical theory. He insists that all the institutions relied on economic interests. Marx see human history as social class struggle for social and economy power. Critical theory often use Marxis concept such as class conflict and alienation to analysis education and social intron about unmet critical theory,

it come from neo Marxisme postmodernism. The goal is to rise to carries about awareness of marginalization issue curriculum content into biography of downtrodden, iimplication of education that focus to social conflict.

Language

Simply, language can means as a tool to convey something that occurred in the heart. However further language are a tool for interaction or for communication, it means a tool to convey idea, concept or feeling. In sociolinguistic, language means as a symbol system such as sound, arbitrary, productive, dynamic, variety, human (Chaer and Agustina, 2010: 11).

Language is a system, means, language is formed number of component that have pattern permanently and can be norm language system such as symbols of sound, every language symbol sign something is called meaning or concept. Because of every symbol of sound has stated a concept or meaning. So can conclude that every language pronouncement have meaning. Example, language symbols that pronoun "nasi" sign concept or meaning 'something can be eaten or staple food. So the language is sounded system that arbitrary, that is used by society for cooperation, for interaction and identify self. Language is communication tool among members of society, such as the symbol of sound that produced by human vocal organs (Keraf, 1976:16).

Language Characteristic

Language is a system of sound such as a sound, arbitrary, productive, dynamic, variety, and human. From that understanding, can conclude among characteristic of language are arbitrary, productive, dynamic, variety and human.

a. Language as arbitrary, it means correlation between symbol and be signed is not must, can change and can't explain why symbol has concept certain meaning. Concrete, 'kuda' sign 'a horse that has four legs can ride is can't explain although it is arbitrary, but also be conventional. It means every pronouncer of language will obey correlation between symbol and be signed. He will obey, example, symbol 'buku' only used for state ' the piles of printed paper in covered, and it does sign other concept cause if it is done means he break that convention.
b. Language as productive means the numbers of element limited, however, can be made speech units which is not nearly limited. Example, based on general dictionary Bahasa Indonesia arranged WJS. Purwadarminta. Bahasa Indonesia only have less than 23.000 vocabulary but its words can be made millions sentences.
c. Language as dynamic means that language can be changed someday. The changed can be occurred at the level: phonologic, morphology, syntax, semantic, and lexicon. Every time there are new vocabularies but there are old vocabularies can't be used again.
d. Language as varieties. Although language has same pattern, used by speakers who is heterogeneous, have social backgrounds and different habit so that language is varieties. It is good at level of phonologic, morphology, syntax, semantic, and lexicon. For example, Javanese use in Surabaya – it is different to be used in Yogyakarta.
e. Language as human, language is verbal communication tools; it is only had by human. The Animals do not have language but they can communicate with sound, gesture, it is nor productive and dynamic. Human can master language but also instinct but also study animal cannot learn human language, therefore language is human.

Language Function

Language concept is tool to convey a mind. Language is a tool for communication. It means a tool to covey a mind, an idea, a concept or feeling.

Sociolinguistic concept that language is or has function to covey a mind which is too limit, cause become a problem. Sociolinguistic is "who speak what language to whom, when and to what end". Therefore language function can be seen in point of speaker, listener, topic, code and message of speaker (Chaer dan Agustina, 2010:15).

a. Personal function. In view of speaker, function of language is personal. It means speaker express attitude toward what he speak. A speaker not only express emotional through language but also show to listener being sad, mad or happy.
b. Directive function. In view of listener, language is directive function, is manage listeners 'attitude. Listener use language not only do something , but also do activities which speaker want
c. Fatik function, it is seen in terms of contacts between speakers and listeners, and then the language is both fatik. This means that the language of relationship functioning, maintain friendly feelings, exposing or social solidarity. The phrases used are usually already patterned remains as at the time say goodbye, met or asking the State. Therefore these expressions can't be translated literally. Expression is usually i with paralinguistic elements, such as a smile, a shake of the head, geleng2 head, right, gestures mien or blink of an eye. expression of t was not in the elements paralinguistic
d. Referential function, it is seen topic pronouncement language, referential function, is to talk about object or incident that is around the speaker or culture in general.
e. Meta-lingual or metalinguistic function. It is seen code that is used, function of language is meta-lingual or metalinguistic. It means, language is used to talk about language itself. It can be seen in language teaching learning process which is language norm explained with language.
f. Imaginative function. It is seen message is delivered, the language is imaginative function. Language can be used to deliver idea, feeling; it is real or imaginative. Language. It function is work art (poetry, story, etc) which is used for making speaker or listener fun. So language is system of arbiter which is used by society to interact, identify itself. Language is communication tools among society, it is like sound symbol is produced by human pronunciation

DISCUSSION

Education Foundation Escorting Educational Philosophy

Pedagogic Foundation is the science that deals with a wide range on a foundation or a foundation in the form of basic principles and essence of philosophy and theory are generic become the Foundation for all of the people preparing itself to be within the scope of informal education, formal and non-formal for pedagogic competencies. Competencies are specific aspect with regard to the ability of educators comprehend themselves as educators, students or individuals understand the educated, the ability to select and apply a wide range of pedagogic approaches in situation that became its responsibility.

Pedagogic base is the provision for educators and prospective educators, teachers are able to do sport in particular think sports, taste, sport and sports karsa are accommodating in taking decisions the thinking and practice of education in the perspective of anthropological practice and normative based on religious views, philosophy, scientific, juridical, contextual and

situational. Pedagogic education in context related to the implementation of ' educating includes a discussion of the basic concepts of education, a cornerstone of philosophical, historical, psychological, socio-anthropological, socio-economic, and techno-logical and Management Education Foundation.

The education with various definitions needs to be understood funda-mentally that education is essentially a development effort and empowerment optimally, utilization of human potential physical, social, mental and spiritual. Pedagogic in education concept is a science that able to give colorful and nuance in human life.

Pedagogic base utilize a variety of educational view of the various schools of philosophy is intended to provide insight into the broad horizons for educators in understanding theoretical as well as practical education. So, very useful pedagogic foundation for educators and prospective educators as on in: a) a decision, b) Act, c) reduce misunderstanding, d) preparing to standby face needs educated, and e) preparing to standby the face of human life and the ever-changing world.

Base of education or educational sessions based on the philosophy of education, according to understand essentialism stated that education is the preservation of the cultural heritage; understand progressivism stated that education is the cultural transition, while the familiar parenialism that education was the repatriation back to a considered fundamental in the past and understand the language is characterized as a series of sound and language is a set of sounds that make up a particular significance as well. Language is a system, which means that language as a system of complex patterns and have the basic structure, the system contained in the provisions that are interrelated with other elements; the language is vocal, just pronunciation that contains all the primary sign language; composed of language had taken-arbiter had taken. It indicates the behavior and improvement of mankind through knowledge.

Indonesia Language Education for Community Development Skillful Thinking a Systematic, Logical and Correct

The language is characterized as a series of sound and language is a set of sounds that make up a particular significance as well. Language is a system, which means that language as a system of complex patterns and have the basic structure, the system contained provisions that are interrelated with other elements, the language is vocal, only speech that contains all the primary sign language; the language is composed of symbols arbiter. This indicates that the relationship between symbol and meaning is also arbitrary. Language is unique, characterized, both in the structure of speech sounds, sentence, word or structure. Language is formed of habits, meaning that the actual use of the language system at the level of habit. Language is a communication tool, it means that language must be understood and appreciated by that user or by another person to talk to. Language is associated with culture are on, it means the language is on the speakers in place the speakers of languages that are; The language changes, changes in language that includes vocabulary, language sounds, the words, sentences and other forms.

It is a reality that humans use language as a vital means of communication in this life. Language is that of a human. Language is the main distinguishing feature of human beings from other creatures in this world. Language is dynamic, constantly changing and evolving in accordance with the progress of time. Therefore, it should not be surprised that the language does not play a constant role in social situations are different. Thus, the role and function of the language are depending on the circumstances, depending on the context.

Judging from the history of the growth of the language from the beginning until now the function of language can be derived from the basic motif and language growth. Motive and the

growth basis, namely the function of language to express self-expression, as a communication tool, as a tool to conduct integration and social adaptation, and as tool to hold social control.

Briefly that the language of which are: 1) the representational function, such ase the use of language to make questions, convey facts and knowledge, explain or report, in other words illustrate, describing the reality of the truth, as seen someone; and 2) the function of the individual (the personal functional), which gives an opportunity to a speaker or writer to express feelings, emotions, personal and profound reactions. A person's personality is usually marked by a personal function of language in communicating with others. In the individual nature of the language is clear that consciousness, feelings, and cultural interact in ways that diverse.

Language is a medium to convey thoughts, feelings and desires through the symbols of language, whether it be the symbol of the sounds of language or speech or writing symbols such as words or sentences. Language is a fundamental distinguishing feature of human beings and other creatures. Human uniqueness lies in the ability of thinking and language skills. Symbolicium humans as animal, creature using generic symbols that have a wider coverage than homo sapiens, that man thinks, because in human thinking activities using symbols. Without having the ability to speak is, the activity of thinking in a systematic and orderly impossible to do. With the language, humans can interact and socialize an individual by individual, individuals and groups, as well as between groups in a society. Language is a means of verbal communication simple and practical. Through language, we can deliver all things, such as thoughts, feelings and the will, and with a language we can also capture, understand and evaluate your thoughts, feelings, and intentions are conveyed by others.

Thus, language is one of the characteristics of human beings. Language is the most effective means to communicate something. In communicating something, the language has three things: thoughts, feelings and attitudes. So language in human life has symbolic function, emotive and affective. Human in life are always in touch with its environment, both physical and socio-cultural tend to change or dynamic. The environment is constantly changing, which in reality always affects the individual. The influence that arises can be external or internal. The influence of the internal will affect the attitude or behavior and mindset of the individual. The patterns formed on the individual form of learning outcomes and learning outcomes tend to be motivated by the experience.

Environmental give experience to someone, whether it was an experience that is thinking/cognitive or that is the attitude/behavior or performance. School or outside of school education and the environment was instrumental in the formation of knowledge or the individual's cognitive structure. Every individual is different and understanding the meaning of information and experience gained because among them there are differences in cognition ability.

Means to process information, or any other concept, which exists in a person's cognitive can be described through verbal communication, namely language, the language either verbally or in writing. Verbal communication in the form of written language is a form of writing symbols, such as words and sentences while communication verbal orally in the form of symbols of the sounds of language or speech.

Cognitive state is strongly influenced by the knowledge, experience and maturity. These aspects are closely linked with the ability to speak. Language skills means the ability rearrange words and sentences, and organize them into a series of rounded understanding. Language show has a very important role and function of language is the most basic conceptual incarnating into the world of the living.

Someone disclosure of information, experiences, concepts, principles or generalizations is determined by the language and the ability to speak is one of the main aspects of a person's ability. Language is a system and the system language is a reflection of one's logic or reasoning.

Logic or reasoning person can be seen in the use language. In other words that the person's thinking process can be seen from the way to use language, either in the form of oral and written language and one's language reflects the thoughts of systematic logical and correct. Thus, logic or reasoning is reflected in the person's language skills.

Every individual has a different language skills and the difference can be seen in the choice its cognitive subject. It is thus clear that the differences in logic or reasoning someone looks how the use of language skills. It gives the user an overview of logic or reasoning that someone associated with language skills. So to understand a person's state of logic or reasoning is required aspects of language. Aspects of language and logic of the performance or appearance of a person can be seen from the product language, both orally and in writing.

So, thinking it was the same as the language and the language reflects a person's thoughts, then those who are good at expressing something through language that is clear, organized, and directed it can be guessed that people think well.

The Cornerstone of Pedagogic Philosophy Education in Truth, Guarding The Importance of Language Education Indonesia to Skilled Community Development, Systematic Thinking, Logical and Correct

Bahasa Indonesia that we use now is derived from the Malay language added by gleaning or borrowed from foreign languages and regional languages are in accordance with the rules of Bahasa Indonesia and in the decrease of foreign languages and regional languages which are not in accordance with the rules of the Bahasa Indonesia. So from the aspect of history that the Indonesian in the formula is BI = BM + X-Y. Namely Bahasa Indonesia (BI) is derived from Bahasa Melayu (BM) plus a levy of Foreign Languages and Regional Languages in accordance with the rules of Indonesian or X, and reduced Foreign Languages and Regional Languages are not in accordance with the rules of Bahasa Indonesia or Y.

The general objective of teaching or learning the language of Indonesia is. a has the ability expresses the idea of using language properly in Indonesia, either oral or writing and. b has a positive attitude towards Indonesia language IE. 1. Loyalty 2. 3. Pride and awareness of norm language. The aim in particular is to have the language proficiency, i.e. the ability of listening, speaking, reading and writing skills.

The function of language is to assert the self-expression, as a communication tool, as a means to hold social integration and adaptation, as a means to hold social control, and so on. Position Indonesian as the national language, function: 1) Symbol of Pride, namely Indonesian reflects the socio-cultural values that underlie our sense of pride; 2) Symbol of National Identity, Indonesian cherished addition to the flag and emblem of our country. In carrying out its functions, Indonesian certainly need to have its own identity so that it matched the wearer society; 3) Interface between residents, interregional and intercultural. Thanks to their national language, we can relate to one another such that the misunderstanding as a result of differences in socio-cultural background do not need to worry because we can take advantage of Indonesian as the only means of communication; and 4) a tool that enables the unification of the various ethnic groups with socio-cultural background and language of each into the Indonesian national unity. Thus, Indonesian enable the various ethnic groups to achieve harmony of life as a united nation with no need to leave tribal identity and fidelity to the values of social, cultural and language background areas concerned. Moreover the national language, we can put national interests far above the interests of the region or group.

Position Bahasa Indonesia as the state language, function: 1) the official state language, the Indonesian language is used in all ceremonies, events and state activities, both in oral and written; 2) the language of instruction in the education field; 3) interface at the national level

for the sake of development planning and implementation; and 4) the developer tools of culture, science and technology.

Based on the purpose of education or teaching and language functions necessary to attempt to maintain, foster and develop Indonesian it through the development of education programs Indonesian effective in "creating" or build productive human beings with the dynamics of individual competence and groups that promote a sense of belonging (sense of belonging), pride (sense of pride) in the context of the sense of responsibility in the use of Indonesian in various spheres of life. Thus, Platform Pedagogic very important guiding implementation in maintaining, fostering and developing the purpose and function of language as Platform Pedagogy is a science that is fundamental in addressing the various fundamental or foundation in the form of basic principles and essence of philosophy and theory in education Indonesian in the sphere of informal education, non-formal or formal. Pedagogic a provision for grounding and potential educators in the development of Indonesian Education program, are accommodating in the practice of education in a practical perspective, normative, scientific, contextual and situational.

CONCLUSION

a. The education field is very broad in scope, covering all human thought and experience. Pedagogic Foundation is the science that deals with the various runways in the form of basic principles and essence of philosophy as well as the theory that became the Foundation for everyone to have, especially for the pedagogic competence or would-be educators, so, basic pedagogic foundation as absolute pedagogic competency is taught/learned, understood and in meaning by the individual as social beings.
b. Everyone surely heard, experienced or has been carrying out education, but not everyone understand, experience or education that's as it should be, then to understand the ins and outs of education need to learn the Foundation of pedagogy.
c. The task of educating rather than domination of a teacher or educator and teacher's task is not just to teach for transforming knowledge to the children at the school but also to develop the child's personality, his protégé in integrated, both to develop the child's mental attitude, develop a conscience so that it has the flavor and attitude of sensitive to the problems of humanity, human dignity, appreciate the degree of a fellow human being, should also develop the skills of the child, life skills in the community so that he is able to confront all the problems of his life
d. The goal of language education Indonesia so that learners. a. have the ability expresses the idea of using the language of Indonesia are good and true. Whether oral or writing and b. have a positive attitude towards the languages of Indonesia, namely, 1. Fidelity 2. Pride, as well as 3. Awareness of the norms of language, i.e. the language proficiency also has the ability to listen to/listening, the ability to speak, the ability of reading and writing skills.
e. Theoretically, Indonesia language education will improve the quality of human development or community Indonesia capable and skillful thinking logical and systematic right through language education. Practically, Indonesia language education is a great way to build a society that is capable and skillful thinking systematically, logical and correct according to the characteristics of the language that the language is a means of thinking.
f. In formulating policies on education, language education Indonesia should get the main priority aside from foreign languages and regional languages with how to add hours of instruction in the school is more ideal. In the Indonesia language learning, teachers must always nurture and develop the creative language of Indonesia with caring foreign languages

and regional languages, as well as the public get used to using the language of Indonesia is good and true.

REFFERENCES

Arifin, Z., dan Amran, T. 1991. *Bahasa Indonesia di Perguruan Tinggi*. Jakarta: Rineka Cipta.

Chaer, A., dan Agustina, C. 2010. *Sosiolinguistik: Suatu Pengantar*. Jakarta: Rineka Cipta.

Greene, J. 1986. *Language Understanding: A Cognitive Approach.* Philadelphia: The Open University.

Halim, A. 1980. *Politik Bahasa Nasional 1, 2.* Jakarta: PN Balai Pustaka.

Kementrian Pendidikan dan Kebudayaan. 2013. *Model Pelatihan Implementasi Kurikulum 2013*. Jakarta: BPSDMPK-PMP.

Kementrian Pendidikan dan Kebudayaan. 2013. *Buku Guru Bahasa Indonesia*; *Wahana Pengetahuan*, *untuk SMP/MTs Kelas VII.* Jakarta: Politeknik Negeri Media kreatif.

Kementrian Pendidikan dan Kebudayaan. 2013. *Buku Guru Bahasa Indonesia*; *Ekspresi Diri dan Akademik*, *untuk Kelas X*. Jakarta: Politeknik Negeri Media kreatif.

Keraf, G. 1979. *Komposisi,* Jakarta: Nusa Indah.

Nenden, S.L.F. 1990. *Aspek logika dan Aspek linguistik Dalam Keterampilan*
Menulis: Studi tentang Profil Komposisi Bahasa Indonesia dan Bahasa Inggris. Bandung: FPS IKIP Bandung (Tesis).

Ornstein, A. C., et.al. 2011. *Foundation of Education*, Canada: Nelson Education, Ltd.

Rivai, M.S.S. 2014. *Landasan Pedagogik (Handout)*. Bandung: UPI Sekolah Pascasarjana.

Rivai, M.S.S. 2014. *Rekomendasi Memahami Landasan Pedagogik*. Bandung: UPI

Rochman, C. 1993. *Struktur Kognitif dan Performansi Mahasiswa dalam*
Konsep Energi. PPS IKIP Bandung (Tesis).

Rusyana, Y. 2006. *Peranan Tradisi Lisan dalam Ketahanan Budaya* (Makalah). Festival dan Worshop Tradisi Lisan Nusantara, Direktorat Tradisi Dirjen Nilai Budaya, Seni dan Film, Departemen Kebudayaan dan Pariwisata. Jakarta.

Sadulloh, U., A. Muharram dan B. Robandi. 2007. *Pedagogik (Ilmu Mendidik).* Bandung: Alfabet.

Salam, B. 1997. *Pengantar Pedagogik (Dasar-Dasar Ilmu Mendidik*). Jakarta: Rineka Cipta.

Suryosubroto, B. 2010. *Beberapa aspek Dasar-Dasar Kependidikan*. Jakarta: Rineka Cipta.

Sukmadinata, S.N. 2001. *Pengembangan Kurikulum Teori dan Praktek.*
Bandung: PT Remaja Rosdakarya.

Suriasumantri. J. S. 1996. *Filsafat Ilmu Sebuah Pengantar Populer.* Jakarta:
Pustaka Sinar Harapan.

Tarigan, H.G. 1987. *Pengajaran Wacana.* Bandung : Angkasa.

Tarigan, H.G. 1988. *Pengajaran Pemerolehan Bahasa.* Bandung: Angkasa.

Tarigan, H.G. 1988. *Pengajaran Analisis Kesalaham Berbahasa.*
Bandung: Angkasa.

Purwadarminta, W.J.S.. 2008. *Kamus Umum Bahasa Indonesia.* Jakarta: Balai Pustaka.

Superior Smk as Educational Laboratory

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Abstract: SMK is a form of secondary education units organized to continue and expand basic education and prepares students to enter the employment and develop a professional attitude. To produce professional SMK teachers, LPTK need to set up the laboratory school as a teaching practice tool for students who take the path of teacher education. The realization of Superior SMK as an educational laboratory need the maximum efforts of LPTK by preparing a variety of resources, namely: superior teachers and education personnel, adequate infrastructure, support and cooperation of industry, strong and visionary principal, integrated quality management system by utilizing information technology, and commitment from the entire school community to be able and willing to develop themselves according to the development of science and technology.

Keywords: superior SMK, educational laboratory

Education is a conscious and planned effort to create an learning situation and the learning process so that learners are actively developing their potential to have the religion spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, community, and nation (UUSPN No. 20/2003 Article 1, section 1). Secondary vocational schools or SMK is a form of secondary education units organized to continue and expand basic education and prepares students to enter the employment and develop professional attitude (Kepmendikbud No. 0490 / U / 1992 Article 1, section 1).

Furthermore, education in vocational high schools (SMK) based on the Ministry of Education and Culture of the Republic of Indonesia (Kepmendikbud) Number: 0490 / U / 1992, and was confirmed as contained in the Law on the National Education System (UUSPN) No. 20, 2003, stated that the Vocational High School aims: (1) prepare students to continue to pursue higher education and / or expand basic education; (2) improve the ability of students as members of the community in organizing a mutual relationship with the social and cultural environment and natural surroundings; (3) improve the ability of students to develop themselves in line with the development of science, technology and the arts; (4) prepare students to enter the employment and develop a professional attitude. Reference SMK is SMK which have superior performance, great access, and effectively manage the institution as well as assisting the alliance SMK in implementation of quality education; Their purpose is to improve the quality, large access, effective as quality guarantor, and willing to share resources (Directorate of PSMK, 2016).

To implement such educational objectives, the implementation of education at the SMK should be guided by the national education goals. National education serves to develop the ability and character as well as dignified civilization in order to educate the nation, aims to developing student's potentials to become a man of faith and devoted to Almighty God, noble, healthy, knowledgeable, skilled, creative, independent, and become democratic citizens and responsible (UUSPN No. 20 of 2003, Chapter II, Article 3). Thus, the purpose of education at the SMK is to prepare students to be able to choose a career, able to develop themselves, to compete in the business / industry, and prepare students to become productive citizens, adaptive and creative.

Link and Match policy initiated since 1997 by the Ministry of Education Wardiman Djojonegoro at the time it was not an attempt to make the labor market planning appropriately regarding the input level into the world of work; such policy is a tool or a vehicle to build a partnership with the business/industry in determining priorities and to develop vocational education and training programs (Djojonegoro, 1997:5). The aim is that the planning of vocational education and training programs must pay attention to the tendency of the labor market signal, so that students can achieve the maximum opportunity to compete for employment that are available and have basic skills that can be used to develop his career.

SMK's conditions that exist in Indonesia today (Directorate of PSMK, 2016) and based on the data obtained through observation, assessment through surveys and literacy that exist can be explained as follows:

1. The amount of SMK until 2016 is as much as 13.150 institutions, with students as much as 4.419.717 and 287.717 teachers, which is increasing each year.
2. Skill program that is opened and developed there are 46 skill programs and 141 skill competence 141 whose condition has been uneven and not fit between the existing programs in schools with the needs of the business / industry.
3. The low quality of graduates, this can be seen from the results of a national exam that the material is purely from the central, which are mathematics, English, and Indonesian whose value is still far from expected.
4. Low entrepreneurial Mental from SMK graduates, proven that SMK graduates still tend as a job seeker and not creating jobs for themselves and for others. Though they have the skills that could be used and developed to create new jobs without depending on others.
5. Conditions of teachers that have not been established in terms of the economy that affect performance, which in turn affect the quality of the graduates. It was proven that the number of teachers who teach in various places/schools with a wide range of education and training taught so the mastery of material is less considered, because they have purpose to obtain compensation (salary), so that they teach carelessly and unprofessional.
6. There are still many teachers who do not meet the standards of expected competence.
7. Facilities/infrastructure that still limited and less standardized (according permendikbud No. 40/2008), especially new schools and small SMKs in boarding schools and private SMKs.

The challenges faced by SMK by looking at various situations and current conditions are: (1) increasingly intense competition in various fields in a global era; including competition from foreign workers who entered in Asian countries including Indonesia, (2) quick development and changes in science and technology, (3) employment is very limited, imbalance between job seekers with available employment.

Universitas Negeri Malang (UM) as an educational institution of educational personnel (LPTK) has the functions and duties to prepare prospective educators develop learning in accordance with developments in technology and science, as well as the needs of community. Faculty of Engineering is an institution that prepares prospective educators in technology and vocational have many innovations and learning development, especially productive sector learning. The result of educational and learning development needs to be tested on the experimental schools and/or laboratory school. However, UM not yet have the educational infrastructure in the form of SMK that became the reference model in the development of vocational education innovation.

Based on the description above, the preparation of superior SMK as SMK laboratory needs to be seriously attention to education practitioners and positive and serious thoughts in building superior vocational school. Superior teacher's product support from college

educational institutions of educational personnel (LPTK) will also determine the success of development and improving the quality of education at the SMKs.

The following will describe the study: (1) the role and function of education in SMK, (2) the role of the principal in managing Superior SMK, and (3) concrete steps in the management of Superior SMK as LPTK laboratory.

ROLE AND FUNCTION OF EDUCATION IN SMK

The education quality development of SMK in global era oriented towards competitive and advantages improvement that is packed on improving the education system with reference to the standard practice competencies required by SMK graduates. SMK has a role and function (according Billett, 2011; Finch, and Crunkilton, 1989; Clarke and Winch, 2007) including: (1) preparing skilled workers to fill the need of National Development, (2) preparing professional workers, (3) gave productive skills to SMK graduates, and changing the status from human burden into assets is productive workers preparation efforts, and (4) provide basic ability to the SMK graduates, as a preparation to continuously develop their quality.

Some basic changes in the new paradigm of vocational secondary education (Rivai and Murni, 2009; Djojonegoro, 1997) are:

1. Transition process from old to new orientation that is often termed from supply-driven system on the social needs of community, to the demand driven system that is driven by the needs of the labor market. During this time mentioned in words, what percentage of vocational high schools (SMK) graduates that is released, reversed into what percentage of SMK graduates that is absorbed in the world of business and industry.
2. School Based Program, referring to Dual Based Program
3. Subject Matter Based Program, toward Competencies Based Program
4. Narrow Based Program toward Broad Based Curriculum
5. strictly formal education toward flexible education (Multy Entry and Multy Exit)
6. Not recognizing skills from outside the school, a new paradigm recognizes the competence gained from anywhere, and any way (Recognition of Prior Learning)
7. Dead End Education toward sustainable education (Bridging Program)
8. Centralized management toward self-management, which today would be returned to the centralized management.

Function of referenced (superior) SMK by PSMK Directorate (2016) are: (1) SMK that superior and effective, (2) competency test places (TUK) and vocational theory online test ,(3) as ICT Center SMK, (4) as a center for the development of SMK teaching materials, (5) as a center for the SMK graduate promotion and industrial cooperation, (6) to facilitate assistance in improving the quality of SMK teachers alliance, (7) as a center for the development of SMK teaching materials, and (8) as assistance to the develop government and private SMK new school unit (USB).

ROLE OF PRINCIPAL IN MANAGING SUPERIOR SMK

School-based management (SBM) is a management model that provides greater autonomy to schools and encourages schools to conduct participatory decision making in meeting the needs of school quality or to achieve school quality objectives. Participatory decision in question is the way of decision-making through the creation of an environment that is open and democratic, where the school residents (teachers, students, employees, parents,

community leaders) are encouraged to be directly involved in the decision-making process that can contribute to the achievement of school objectives.

Implementation consequences of School-based management (SBM) are the School's responsibility and handled in a professional manner. These aspects that becoming School's areas of work (according Umaedi and Zamroni, 2005) includes: (1) planning and evaluation of school programs, (2) curriculum management that is inclusive, (3) teaching and learning management, (4) energy management (5) supplies and equipment management, (6) financial management, (7) students Services, (8) School-society relations, and (9) school climate management.

As stated above, the concept of School-Based Management in practice it describes the properties of school autonomy, therefore, often referred to as Site-Based Management that refers to the need to pay attention to the conditions and potential of local institutions in managing schools. Meaning of "school-based" in the concept of SBM did not leave the strategic policies set by the central government or autonomous regions.

For example, student competency standards, primary subject matter standard, minimum mastery standards, minimum service standards, establishment of educational calendar and the number of effective teaching hours per year and others (see UU No. 20/2003 Article 51 of PP No. 25 Year 2000 which has been amended by PP No. 33 Year 2004) about the school Based Management (SBM) is essentially the harmonization of resources carried out independently by the school with the involvement of all stakeholders directly associated with the school in the decision making process to meet the needs of school improvement or to reach national education goals.

Principal as a leader in the education unit became the most responsible person for realizing the mission of SBM. The principal is a driving force for the school resources, especially teachers and school employees. so it can be said that the success or failure of a school is determined by the quality of principals, especially in its ability to empower teachers and employees towards a conducive working atmosphere (positive, exciting, and productive). Mulyasa (2006) and Sallis (2011) stated that the principal roles and responsibilities are as the managers, leaders, supervisors, and educational administrators.

CONCRETE STEPS IN SUPERIOR SMK MANAGEMENT AS LPTK LABORATORY

Based on the roles, functions and paradigm of SMK as mentioned above, in order to realize Superior SMK as the educational laboratories it requires steps as follows:

First, socialization and commitment from the whole school are residents (teachers, staff, and students). Socialization is intended that the entire school community to know the intent and purpose from Superior schools that had been commonly called the national/International standard school, so they are expected to participate and committed to delivering the school into superior school, as expected. With the support from the school residents would be easier to achieve this, because all residents take responsibility and care about the programs that will be implemented by the school;

Second, socialization and commitment from the school committee and the foundation boards (for private schools). The school committee and the Foundation board (for private schools) also play an important role in the progress and development of a school. Therefore, in order to develop the school into a superior school they should be consulted and work together to support each other so that the programs which have been proposed are not fails. Committees and foundations are obliged to provide support both morally and materially directly to the achievement of the mission, vision, goals and program initiated by the school can be realized as well as possible;

Third, select qualified students who have a high ability and willingness to learn and accompanied with high academic score as well as a good attitude and determination in the face of all difficulties and challenges include dealing with the job at hand. Held strict test to do new students selection, the selection is not enough if its only through the score in graduation certificate, but also through other tests such as: academic test, psychological test and interview;

Fourth, prepare and choose in their field of professional teachers so that teaching and learning can run optimally and produce graduates who are able to compete in the job market. For that reason, it is very important for teachers to have industry experience or an internship in the industry to gain practical experience. Schools must be active in cooperating with industry to implement industrial internships for teachers can be done with the principle of mutual benefit and accompanied by a sense of responsibility towards improving the quality of education from both sides (between the school and industry). Teachers must be educated as Bachelor of Education S1/D4 plus certificate (akta) IV/S1 plus PPG. Furthermore, in a Superior SMK also need a minimum of 25% of teachers who have post graduate degree.

Fifth, be preparing students to be absorbed in the world of works. So that graduate from SMK can be absorbed by the business/industrial world, this cannot be separated from the trust and cooperation both from the SMK and business/industry/company. Therefore, the SMK should establish partnership relations that benefit both sides so that when the business/industry requires workers it can absorb the graduates of SMK. In the preparation of graduates in the relevant working world, can be done as follows: (1) the promotion into the world of work through the mass media, (2) market the graduates by showing the graduates profile, (3) internal socialization to students about the business world that relevant to chosen area of expertise , (4) observations and thorough assessment of the ability of graduates to be marketed, (5) collaboration with business/industry as well as possible, (6) record the graduates that have been employed in relevant work;

Sixth, be improving the quality of industrial work practices implementation. To improve the quality of industrial practices can be taken the steps as follows: (1) improve basic practices in schools as a basic for industrial work practices, (2) enhance the harmonious cooperation with business/industry, (3) sufficient briefing before students do industrial practices (parker), (4) enhance guidance during industrial practice, (5) guarantee the job opportunities for students who excel, to motivate students to do parker with the best possible way.

Seventh, Developing practice facilities/infrastructure primarily on developed expertise programs. To develop practice infrastructure, it needs enough funds, it is necessary to cooperate with various parties including: (1) extracting money through the parents / guardians of students, (2) requests for funding to local governments Regency / City, (3) requests for funding to local government of the Province, (4) requests for funding to the Central government, (5) requests for funding through sponsorship, (6) requests for funding through alumni, (7) to obtain funds with the procurement and development of production and services unit in SMK, and (8) requests for funding through business/industry, and others.

Eighth, Improvement and development of school management followed by human resources (HR) who are able to follow the development of science and technology. To improve and develop the school management, there are four management functions that should be performed: planning, organizing, actuating, and evaluation/control. In addition, in an effort to become superior SMK, in the learning implementation, school management use the principles of ISO quality management system, which is a standard quality developed for ease of management in implementing any activity, for that the philosophy that is used is "write that you do and do that you write" therefore, it must be supported by the human resources capable of following the development of science and technology.

Ninth, visionary principal to be a leader in the education unit became the most responsible person in realizing the mission, vision and goals of the school. The principal is a driving force for the school resources, especially teachers and school employees. It can be said that the success or failure of a school is determined by the quality of principals, especially in his ability to empower teachers and employees towards a conducive working atmosphere (positive, exciting, and productive). Rivai and Murni (2009) states that the principal roles and responsibilities as managers, leaders, supervisors, and educational administrators.

CONCLUSION

Superior Vocational High School (SMK) is a school that can implement teaching and learning process earnestly to meet minimum service standards for education in accordance with the PP (Indonesian Government Regulation) No. 19 Year 2005 About: National Education Standards.

In order to become a Superior Vocational High School (SMK) needs the support from all the school residents (students, teachers, school staff, school committees and foundations for private schools), support and guidance from the Department of Education and Culture, as well as the support of related elements. Superior Vocational High School (SMK) is also called the REFERENCED school or MODEL school because it can be used as a model/reference or example for other similar schools.

For the success of superior vocational schools (SMK) needs the support of good and high quality resources (human, financial, infrastructure, management). Superior SMK is expected to prepare a mid-level skilled worker, so that graduates can provide a high contribution to the development of Indonesia, and able to compete on the job market locally, regionally, nationally or internationally and also graduates of Superior SMK expected to be able to compete at higher education level.

Principal as a leader in the education unit became the most responsible person in realizing the mission, vision and goals of the school. The principal is a driving force for the school resources, especially teachers and school employees. It can be said that the success or failure of a school is determined by the quality of principals, especially in his ability to empower teachers and employees towards the conducive working atmosphere.

REFERENCES

Billett, S. 2011. *Vocational Education (Purposes, Trsditions and Prospects)*. Griffith University, QLD, Australia: Springer

Clarke, L., and Winch, C. 2007. *Vocational Education (International approaches, developments and systems).* New York: Routledge.

Kepmendikbud. 1992. *Keputusan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor: 0490/U/1992 Tentang SMK*. Jakarta: Departemen Pendidikan dan Kebudayaan.

Direktorat PSMK. 2016. *Pembelajaran Kebekerjaan SMK*. Jakarta: Direktorat PSMK

Djojonegoro, Wardiman. 1997. *Keterampilan Menjelang 2020 Untuk Era Global.* Jakarta: Departemen Pendidikan dan Kebudayaan

Finch, C. R. dan Crunkilton, J. R. 1989. *Curriculum Development in Vocational and Technical Education* (3rd) ed.). Needman Heights, Massachusetts: Allyn and Bacon, Inc.

Kepmendikbud No. 0490/U/1992, *tentang Sekolah Menengah Kejuruan*

Mulyasa, E. 2006. *Menjadi Kepala Sekolah Profesional.* Bandung: Remaja Rosda Karya

Umaedi dan Zamroni, 2005. *Manajemen Peningkatan Mutu Berbasis Sekolah*. Jakarta: Cipta Jaya.

Patasik, A. 2004. *Konsep Dasar SMK Berstandard Nasional dan Internasional. Makalah disampaiakna dalam Penataran dan Lokakarya Manajemen Tenaga Kependidikan Tanggal 18-23 Oktober 2004 di PPPGT Bandung*. Jakarta: Direktorat Dikmenjur.

PP No. 19 Year 2005 about: *National Education Standard.*

Priowirjanto, G. H. 2001. *Reposisi Pendidikan Kejuruan Menjelang 2020.* Jakarta: Direktorat Dikmenjur.

PP No. 25 Year 2000 which has been amended by PP No. 33 of 2004 *School Based Management(MBS)*

Rivai dan Murni. 2009. *Education Management: Analisis Teori dan Praktik*. Jakarta: Rajagrafindo persada

Sallis, E. 2011. *Manajemen Terpadu Pendidikan*. Jogjakarta: Ircisod

UU No. 20 Year 2003 about: *National Education System.*

The Development of Learning Materials base on Geogebra for Prospective Teacher

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Abstract: The purpose of this study is to produce a textbook to improve the ability of prospective teachers in geometry. Textbooks prepared using research and development methods. Textbooks are evaluated based on the feasibility aspect of the material, appearance and language. Research shows ratings material is 85% (very good), the illustration is 84% (excellent) and conformity assessment according Indonesian language Grammar and Structure is 85% (excellent) and the mathematical notation is 86% (very good). Thus the textbook developed have completeness of the materials, the material accuracy and presented with illustrations can develop an understanding and ability of prospective teachers in geometry.

Keywords: Learning Materials, Geogebra

Geometry is a branch of mathematics that has been familiar to children from birth, because the geometry there is ubiquitous in almost all objects of toys and drawings. Geometry can be found in the design of the building, the surrounding nature, the form of the creation of works of art, and so forth.

Concern for the concepts of geometry requires a child's ability to conduct an evaluation on the surrounding environment of congruency, consistency, equality, and so forth. Such concern is an important base for the maturity of the review and the establishment of formal geometry verification capabilities. Because, understand the concept of geometry correctly and help a person in present and describe the world around them in order and organized.

The studying geometry in accordance to the opinions of Van de Walle (2006) was important which revealed that the five reasons why geometry is very important to learn. First, Geometry helps people have a full appreciation of the world. Second, geometric exploration can help and develop the skills of geometry. Thirdly, geometry plays a major role in the field of Mathematics others. Fourth, Geometry is used by many people in their daily lives. Fifth, Geometry filled with puzzles and fun.

Viewed strategic position as outlined Geometry, Geometry should be a matter that needs to be a major concern, particularly at the elementary level. Supposedly Geometry is the material given in elementary school in a proper way and correct. Accuracy of providing learning geometry is determined by factors of teachers as the main character in the learning. This is because; the teacher is at the forefront of learning reform. Mulyasa accordance with the opinion, that the teacher has a role and a very important function in shaping the personality of the child in order to prepare human resources, as well as the welfare of the people, the progress of nations, and countries.

Primary School Teacher Education Programs (PGSD) as an educational institution producer of prospective teachers and teachers responsible for generating candidates and teachers who not only mastered the material but also master pedagogic Mathematics Mathematics, especially the use of computers as a learning tool. Educational institutions should

integrate applications for prospective teachers and primary school teachers so that when it falls spaciousness does have technical skills and skillfully use them in learning mathematics.

To achieve this goal requires a strategy lectures particularly effective lectures Mathematics Education. One of them is to apply the use of dynamic geometry software. Through the use of this software is expected to equip the students to be able to provide effective learning mathematics. In order for the implementation of computer-based learning is progressing well needed teaching materials that can advice and guidance to the students. Based on these descriptions research was conducted on the development of teaching material the use of computers to improve the ability of prospective teacher students in geometry.

This study aimed to get a geometry textbook as supplementary, when students learn the concepts of geometry through learning bebasis computer. The results of this study can be used as a textbook that can improve the ability of prospective teacher in geometry.

LITERATURE REVIEW

Learning Material

Definition of textbooks in college widely is the kind of book that is intended for students as the provision of basic knowledge and used as a learning tool and used to accompany the learning process. As teaching materials, textbooks or textbook should be cause interest in reading, written and designed based on "needs" students, referring to the competency to be achieved, are prepared for instructional processes and mechanisms to collect feedback from learners. This means that learners can use on their own teaching material, anytime and anywhere. Learners can learn at their own pace according to the selected sequence itself. In general it can dikatan that textbooks can develop the potential of students to be independent learners.

According to Hayat (2001) textbook is one means of successful implementation of the learning process. Textbooks are one unit of learning that provides information, discussion and evaluation. Teaching materials are systematically arranged will facilitate students in learning the material that supports the achievement of learning objectives. Therefore, teaching materials should be developed systematically, attractive, high readability aspect, easily digestible, and comply with the applicable rules of writing.

Kurniawan (2005) textbook provides facilities for self-learning activities, both on substance and on presentation. The use of textbooks is part of the culture of the book, which is one sign of a developed society. Viewed from the learning process, textbooks have an important role. If the purpose of learning is to make students have a variety of competency, then the design of textbooks should include a number of principles that can improve the competencies to be possessed by students. One of the tools that can be used to achieve this is to design a number of exercises based information search programmatically.

Each textbook is expected to meet certain standards set by the needs (students and teachers), the development of science and technology, as well as the demands of the curriculum. The standards referred to in this assessment guideline cover the requirements, characteristics and minimum competencies that must be contained in a book. According to the Center of Books (2004) Standard textbook votes ICT (Information and Communication Technology) formulated by looking at three main aspects, namely the content eligibility, presentation eligibility and language assessment.

1. Contents Eligibility that do include aspects: (a) Completeness of the material; (b) The accuracy of the material; (c) Recency of the material; (d) Encouraging curiosity; (e) Practice.

2. Presentation Eligibility consists of: (a) presentation techniques; (b) supporting the presentation; (c) the presentation of learning) and; (d) coherence flow of thought.
3. Language assessment includes compliance with Indonesian Langguge Grammar ans Structure (EYD) and correct use of mathematical symbols and notation.

Geogebra

GeoGebra is computer software that was created by Markus Hohenharter (from the University of Salzburg in Austria) and can be downloaded free of charge via the Internet at www.geogebra.at. Including software GeoGebra is dynamic. According to King and Schattschneider (1997) dynamically interpreted as an act of energetic and very active. Dynamic Software has a mode of "dragging" which makes users freely move the wake-forming. Once a piece is moved such as lines or dots relations with other parts of the original wake retained. Other dynamic softwares are Cabri, Cinderella, Geometry Sketchpad and GeoNext.

According to King and Schattschneider (Jung, 2005) GeoGebra has advantages as follows: a) Construction drawings are accurate; b) Visualization; c) The loci; d) Construction Protocol; e) Navigation Bar for Construction Steps; f) Dynamic Worksheets. All these facilities enhance the students' ability to think critically because: (a) Improving the ability of multi-representation; (b) Equipment development of mathematical concepts; (c) Equipment mathematical reasoning; (d) The troubleshooter; (e) mathematical communication tool (Alagic state in Conway, 2005)

Zengin at al., found that there was a significant difference between the means of the students' scores on the posttest in favor of the GeoGebra group. Rellevant to Akayya (2011) defination coul be understood that Geo Gebra is dynamic mathematics software useful in terms of enabling students to learn the subject better.

METHODS

The Study use Research and Development methods, he respondents are the target users of products such as prospective teacher PGSD UNJ.

The research instrument is a questionnaire addressed to the students to determine the level of user satisfaction. Besides, a questionnaire was also addressed to the expert or mathematician to determine the feasibility of the textbook.

Based on the above methodology dikemukan the steps of research development guided by the Borg and Gall (Sukmadinata, 2009), namely:

1. Research and data collection early. Small-scale study was conducted to determine the ability of students PGSD geometry. Then there is also literature studies and considerations in terms of value.
2. Planning. Develop a research plan, including the abilities required in carrying out the research, formulation of goals to be achieved by the research.
3. Development of draft products. Based on the theoretical study objectives formulated standards of competence and basic competences. Furthermore, the preparation of teaching materials. It also prepared a questionnaire to assess textbook.
4. The field trials that begin with testing on small groups, and then to the large group and tested in the classical past.

RESULTS

The texbook consist of basic geometry, namely: (a) technology in education; (b) a horizontal plane; (c) points, lines and planes; (d) the relationship between the two lines; (e) triangle, (f) line in triangle (g) rectangle. Each chapter is presented preformance material

consists of basic knowledge, activity and exercise. The knowledge base contains the initial concepts that must be understood by the students. Students explore each of concepts by Geogebra. Exercise contains questions to test student progress

After textbook structuring the questionnaire were distributed to respondents to assess the feasibility of a book. From the questionnaire obtained the following table:

Table 1: Recapitulation of Material Assessment

Aspect	Componen	Average	Prosentase
Contents Eligibility	completeness of the materials	3,32	87%
	accuracy of the material	3,29	74 %
	material recency	3,40	89 %
	Encouraging curiosity	3,43	89 %
	Practice	3,37	88 %
	Average	3,36	85,4%
Presentation Eligibility	Presentation techniques	3,41	89%
	Supporting presentation	3,37	88 %
	Presentation of Learning	3,33	87%
	Mindset coherence	3,30	86 %
	Average	3,35	87,5%
Langguage	Suitability to Indonesian Langguage Grammar and Structure	3,51	92%
	Mathematics Notation	3,70	95%
	Average	3,60	93,5%

DISCUSSION

Discussion of the results of the research will be described in three parts, as follows:

Eligibility Contents

The material presented in the textbook is considered to be complete. Completeness in question is in each chapter there is a knowledge base that delivers students to the objectives to be achieved. Basic knowledge in the form of the definitions was attributing or knowledging of the concepts that will be discussed at the baba. Knowledge base is equipped with an image or chart as an illustration. Given knowledge is broad and deep. That is widespread, the basic concepts associated with other concepts. While deeply meaningful knowledge provided is not limited to the definition, properties but also explores the definition and properties of these. As the material heavy line on the triangle (Chapter VI: 48). First, be given the definition of a heavy line. Then the heavy line in exploration again how to position the cutting point 3 pieces of heavy line in an isosceles triangle, equilateral and right-angled (Chapter VI: 53).

The accuracy of the material in the textbook is maintained so that students avoid misconceptions and wrongdoing metematis, for example, understanding the concept is wrong, wrong use of notation that can hinder understanding of mathematics.

Related to currency no change materially the geometry of the material has existed since ancient Egypt. But nevertheless the learning strategies and media used in teaching geometry developed in accordance with technological developments. A lot of softwares that has been created to make learning geometry in order to become more attractive. As GeoGebra software includes advanced software because it has many amenities and easy to use.

Textbook Learning Geometry based on Geogebra presents a dynamic activity in understanding the geometry. Many properties are needed to be explored. The questions posed

in the exercise, form "trigger" challenged students to find the answers. This is a way to spark students' curiosity.

Lastly the components of the feasibility of the content were an aspect of practice. In each chapter from Chapters 3 through 7 there are a lot of practical activities that are equipped with step by step instructions. By trying out any of the activities presented, the technical ability of students will be increased.

Presentation Eligibility

Presentation techniques in textbooks has been consistent, each chapter there is a similar dish. Consecutive starts with basic concepts, activities and exercises. Then the concepts presented systematically, starting from the Big Idea (main idea) then lead to the parts.

In each chapter there are examples supporting the concept mastery. Examples are accompanied with pictures for easy understanding. Likewise, there are exercises at the end of each chapter is useful to sharpen the understanding and practice skills in using technology for learning.

Activities and exercises contained in the textbook aims to involve students. The activities presented in a systematic, ranging from an easy activity, later expanded to activities that are difficult. Likewise, the material in each chapter is presented as a whole and there is a link between chapters.

Language and Readability

The use of language is one factor that is important. The use of language, which includes a wide selection of language, choice of words, the use of effective sentences and paragraphs meaningful preparation, have big impact to benefit textbook. The research data shows book Geometry Computer-Based Learning has been using Indonesian is good and right. Sentence structure adapted to the level of development of its readers. Because this book is used by students of the choice of words and terms used already formalities.

Besides the spelling that was used in accordance with the rules of Indonessian Langguage Grammar and Structure (EYD). It is essential to remember that the same things are required in every activity of reading and writing. Vocabulary, symbols and notation used were appropriate and consistent.

CONCLUSION

Based on the results of research and discussion, it is stated that the textbook "Learning Geometry Based on Geogebra" has met the eligibility criteria, namely the content of the material contained therein is complete, accurate, using the latest technology and encourage students' curiosity. Presentation feasibility has met with their presentation techniques coherent and systematic flow of thought and supported by illustrations, examples and exercises and involves students actively so as to develop concepts and technical ability in using computer technology. The language used meets the standards EYD and notation and mathematical symbols used was appropriate.

REFFERENCES

Aceladajo, M.J. 2003. *The Impact of Using Technology on Students Achievement, attitude, and anxiety in Mathematics*.

Akkaya, A., Tatar, E., & Kağızmanlı, T. B. 2011. Using dynamic software in teaching of the symmetry in analytic geometry: The case of GeoGebra. *Procedia-Social and Behavioral Sciences*, *15*, 2540-2544.

Almeqdadi, F. 2005. The Effect of Using The Geometer's Sketchpad (GSP) on Jordanian Students' Understanding Some Geometrical Concepts, *International Journal for Mathematics Teaching and Learning*. [online]. http://www.ex.ac.uk/cimt/ijmtl/almeqdadi.pdf.

Hopson, M.H., Simms, R., Knezek, G.A., Using a Technology-Enriched Environment to Improve Higher Order Thinking Skills, *Journal of Research on Technology in Education*, Volume 34, Number 2, 2001-2002. [Online]. http://www.iste.org/jrte/34/2/abtracts/hopkins.cfm.

Kimmins, D. 1996. *Technology in School Mathematics: A Course for Prospective Secondary School Mathematics Teachers*.

Mulyasa, E. 2006. *Menjadi Guru Profesional. Menciptakan Pembelajaran Kreatif dan Menyenangkan*. Bandung: Remaja Rosdakarya.

Peraturan Menteri Pendidikan Nasional Republik Indonesia Nomor 16 Tahun 2007 Tentang Standar Kualifikasi Akademik Dan Kompetensi Guru

Pusat Perbukuan Depdiknas 2004. Pedoman Penilaian Buku Pelajaran Matematika Sekolah Dasar

Sugiyono. 2003. Metode Penelitian Administrasi. Bandung: Alfabeta

Sutton, M.J. 2006. Problem Representation, Understanding, and Learning Transfer Implications for Technology Education. *JITE* vol IV no 4. [Online]. Tersedia: http://scholar.lib.vt.edu/ejournals/JITE/v40n4 /sutton.html.

Van de Walle 2006. Elementary School Mathematics. New York: Longman

Zengin, Y., Furkan, H., & Kutluca, T. 2012. The effect of dynamic mathematics software geogebra on student achievement in teaching of trigonometry. *Procedia-Social and Behavioral Sciences*, *31*, 183-187.

Pedagogical Competence Improvement of Teachers Through a Neuro Linguistic Programming (NLP) in Indonesia

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Abstract: The purpose of this study was to describe pedagogical competence transform of teachers in Indonesia also how Neuro Linguistic Programming (NLP) was apply in the classroom, thus we obtain the maximum learning outcomes and lead to the achievement of competency standards. The method used are literature review through the analysis of the content on a variety of papers, books, journals both research and non-research, as well as conseptual and procedural. The outcome is produce the improvement matrix of pedagogical competence of teachers through Neuro Lingusitic Programming (NLP).

Keywords: teacher, pedagogical competence, neuro linguistic programming (NLP)

In Government Regulation Number 74 Year 2008 About Teacher, in Article 2, states that "teachers must have academic qualifications, competence, teaching certificate, physically and mentally healthy, and have the ability to realize the goal of national education". The competence referred to in Article 2 is described further in article 3 paragraph 1 and 2 as follows.

(1)Competence as referred to in Article 2 is a set of knowledge, skills, and behaviors that must be owned, lived, ruled, and actualized by teachers in implementing the tasks of professionalism. (2) Teacher Competence referred to in paragraph 1 includes pedagogical competence, personal competence, social competence, and professional competence acquired through professional education.

In paragraph 4 also described in more detail about the purpose of pedagogical competence is the ability of teachers related to learning management of learners that includes (1) an understanding insight or educational foundation; (2) understanding of the learners; (3) development of a curriculum or syllabus; (4) educations design; (5) the implementation of learning that educates and dialogue; (6) the use of learning technologies; (7) evaluation of learning outcomes; and (8) develop learners to actualize various potentials.

Teachers Pedagogical competence is a fundamental competence, as the results of research conducted by Viqraizin (2015: Vii) state that the pedagogic significant effect to contribute 11.28% on the teacher performance. The results of another study showed that pedagogical competence of teachers affects 43.3% of the student learning outcomes (Andriawati, 2013: 3). Similar to research which mentione before, Sari (2013: iv) state that the influence of pedagogical competence of teachers to student learning outcomes reached about 99.4%.

Since the last two years specifically from 2014-2015, the Indonesian government is getting serious in terms of managing the quality of teachers, both public and private status. Evidenced by the holding of Teacher Competency Exam in order to assess pedagogical competence and professionalism of the teacher to see the extent of teacher competence and subsequently used as a reference needs of future work programs.

However, the Teachers and Education Personnel Director General from Minister of Education and Culture, Surapranata (2016) said that the value of the Teacher Competency Exam

of 2015 shows the average of pedagogic competence national only 48.94 from Indonesian Minimum Competency Standards that supposed about 55 grade. Provinces that achieve value for pedagogical this standard is only one that is Special Region of Yogyakarta with a value reach 56.91. For the value of the national Teacher Competency Exam average results that include pedagogic and professional competence is 53.02 grade. with Minimum Competency Standards each competency is the average of 55 grade. From these values, only 7 (seven) provinces which value exceeded the Minimum Competency Standards, there are; Special Region of Yogyakarta that reach 62.58 grade, Central Java about 59.10, Jakarta which about 58.44, East Java is 56.73, Bali is 56.13 grade, Bangka Belitung reach 55.13 and 55.06 for West Java (Maulipaksi,2016). It is a such serious issue for Indonesia since teacher is the main mast of education and civilization, and they are still lack particular pedagogical competence ability.

To solve the problems above, the teacher needs to understand more about the pedagogical competence as well as a variety of communication techniques and patterns of human learning, so that they can teach their students more effectively. According to Santos (2011) anyone who wants to improve the quality of life including teachers, then Neuro Linguistic Programming will give a new discourse and methods that really ready to be used. During problems in the level of teachers has not been done properly, then the school would not be able to achieve the goals it has set.

Based on the above, in this study the researchers will examine the title about "Competence Pedagogical Improvement Of Teachers Through A Neuro Linguistic Programming (NLP) In Indonesia" which is expected that this study can address the issues of pedagogical competence of teachers, especially in Indonesia.

METHOD

The method used was literature review through the analysis of the content on a variety of papers, books, journals both research and non-research, conceptual and procedural.

FINDINGS AND DISCUSSION

Pedagogical Competence

Etymologically, pedagogical was comes from the Greek, there are paedos and agogos (paedos means “child” and Agogo means “escort or guide”). Then pedagogy means to guide the child. The task of guiding is inherent in the task of an educator, that teachers and parents. Pedagogical competence is closely related to the didactic ability and methodology that should be owned by teachers so that they can play a role as an educator and a good coach (Payong, 2011: 28-29). Pedagogic Competence is one type of teacher competencies that must be mastered. Pedagogic competence is distinctive competencies, which will differentiate teachers to other professions and will determine the degree of success of the process and learning outcomes learners. Indeed, teachers and teacher education can not directly build the community to be good and caring, but they had an integral part to play in articulating the mission and educate young people for the general public in the future (Michelli & Keiser, 2005). In Estonia, which is one of the countries in Europe, pedagogic interpreted to include three things: a professional teacher; teacher's personality; and the relationship between the professional and the teacher's personality (Leijen, Kullasepp, Anspal, 2014: 311).

To be able to master this pedagogical competence required continuous learning process and systematically both in the pre occupation (education teacher candidates) or during in-service, which is supported by the talent, interest and other teacher training potential of each

individual. Awareness of teachers reconstructed not only in practice but also in the process of reflection. Reference totality teachers practical knowledge gained from the experience of formal and informal education (Xu & Connelly, 2009:221). In education both nationally and internationally, debate among educators and policymakers for decades has spawned a discourse on the importance of quality teachers, but there is no universal agreement about the concept, elements and characteristics that affect the quality of teachers in the education community (You, 2014: 16). Being a teacher requires a process for build the character. Because of the quality of education, largely depends on the quality of teachers. Yet, the quality of teachers depends on how they are educated and trained (Fazal Khan, Majoka, 2014: 357).

Challenges preparing high quality teachers through the education policy is an important agenda in many countries (Chong, 2013: 54). In Indonesia, based on Government Regulation No. 74 of 2008 on Teachers Article 3, paragraph 4 states that the pedagogical competence of teachers are covering eight aspects: (1) understanding the insight or educational foundation; (2) understanding of the learners; (3) development of a curriculum or syllabus; (4) design of education; (5) the implementation of learning that educates and dialogue; (6) the use of learning technologies; (7) evaluation of learning outcomes; and (8) develop learners to actualize various potentials. While based Directorate General Education Quality Improvement in 2010, There are 7 (seven) aspects and 45 (forty five) indicators relating to the mastery of pedagogical competence of teachers in order Teacher Performance Assessment. The pedagogic competency that will be used as reference in this study are based on Directorate General of Quality Improvement of Teachers by Ministry of National Education in 2010.

Neuro Linguistic Programming

According to Lim in the Priority Sky (1994) NLP is a technology for the successful use of conscious and sub conscious mind to identify the factors critical to eliminating debilitating beliefs, meanings, values and decisions while improving self-esteem, clarity and a strong sense of self. NLP is gathering information to make a model, based on internal experience and processing of information from people who studied and modeled, including the part that is in their subconscious.

The word “neuro” refers to neurology, that is our nervous system - mental path through our five senses to see, hear, feel, taste and smell. Linguistic refers to the ability of our language; how we arrange the words and phrases to express themselves, and how the "silent language", movements and gestures can reveal our intentions, thinking styles and more. Programming drawn from computer science, refers to the idea that thoughts, feelings and actions are like a computer software program. When we change these programs, such as when we change or upgrade the software, we immediately get a positive change in our performance. We get an immediate improvement the way the thinking process, feel, act and live.

There is a relationship between perception, thought and behavior that operates all the time that can be learned by exploring internal capabilities and the subjective experience of a person. NLP is not based on theory, it is based on the modeling process. The difference is the model should not be "true" or even perfectly formed, but it should be useful in accordance with the design objectives when applied. NLP is an epistemology (the study of the origin and structure of knowledge itself), everything in NLP is based on specific evidence for the effectiveness of the procedures and thoroughly tested (Sky Priority: 1994). NLP can be used for training, personal development, coaching, and as an aid interventions for eating disorders, addictions, dyslexia, depression and chronic fatigue syndrome, and others. NLP is one of the most popular in the world of interpersonal skills and communication training. NLP also been recognized by

the United Kingdom Council for Psychotherapy. However, after three decades, there is still no credible theoretical basis for NLP (Roderique, Davies, 2009: 57-58).

Sharpley (1987: 103-107) explained that from the 44 studies evaluating the NLP, only six of which can be categorized as accepting the principles of NLP. If NLP is regarded as minimal theory, but of the procedure that is collected by a variety of counseling approaches, it can serve as a reference NLP therapist role who want to equip their counseling practices with new techniques (Dowlen, 1996: 32).

Several studies of NLP as has been done by Skinner and Croft (2009) With the title of Neuro-Linguistic Programming Techniques To Improve The Self-Efficacy Of Undergraduate Dissertation Students produce findings that the overall success of the program both quantitatively assessed, to the achievement of targets and the participation of the student's grades, and qualitative, to evaluate processes, products, and materials used with input from participants tutors and students. This issue, research done by Pollitt (2010) about NLP Helps Metronet Rail Maintenance Employees To Stay On Track, which is conclusion that a foundation in NLP, especially the emphasis on managing change effectively, it is imperative to operate more effectively as a business in the present.

Hence, the NLP is utilizing personal expertise that has been owned by everyone to be directed toward in life goal, according to short and long term lifespan. There are some basic assumptions of NLP, namely:
The map is not the territory itself.
Everyone lives in a unique model of its world respectively.
Every experience has a structure.
Life, mind, and body are one system.
Meaning of communication is the response that individual gets.
You are not be able to do not communicate
Behind every behavior there is a positive intention.
People determine the best option according to themself.
There is no such thing as failure, only feedback.
If what you are doing is not working, do something else.
We have resources within themselves to achieve what we want.
If someone is able to do something, anyone can learn how.
Humans working properly.
Within any system, people have the highest flexibility will control the system.
The choice is much better than none at all.

The NLP also consider mechanisms of human behavior that originated from the need of a human being itself. According to Maslow (2003) The kinds of individual needs in a hierarchy are: Needs physiological, such as: clothing, food and shelter, security needs--not in the physical sense, but also mental, psychological and intellectual—as well as necessity affection or acceptance, need for prestige or esteem, which is generally reflected in a variety of status symbols, and self-actualization needs.

The basic human needs as told before are then humans respond to the stimuli coming from the surrounding environment in conscious condition or state that have absorption as much as 12% and the subconscious impact of up to 88% affect human behavior. If it can make it example as a computer, then the mechanism of human behavior have emerged can be seen as following Table 1.1 below:

Table 1.1 Process Computer Likened Human Behaviour

No.	Computer	Human
1.	Keyboard	Environment (input)
2.	Hard drive	Memory (in the brain)
3.	CPU / Processor	Intellect (mind / reasoning)
4.	Monitor	Faces / behavior (output)
5.	Blue screen	Cry
6.	Save mode	fainting

Source: Subiyanto (2016)

Being based on the principle that 88% of human behavior is influenced by the sub-conscious, then the new values that would like to be implanted will be more effective if given at the man in a state of sub-conscious. When in a state where human brainwave sub-conscious is when the brain is in a state of alpha and theta. At this time the human brain will actually receive all the information that goes without filters, so that any stimulation received by the brain will go directly into the subconscious and affects 88% of the person's behavior. As for the sequence of brainwave was itself is ripened conscious / customs, alpha, theta, and delta (deep sleep state). Power of the subconscious on human consciousness can be likened to an iceberg as Figure 1.1 follow.

Figure 1.1 The icebergs are like sub-conscious and conscious (Giffiths, 2015)

In order to get the right time to influence the human mind at the unconscious time, it is necessary to note that the filter in the human mind does not work, when; (Subiyanto, 2016b): Bedtime (Hypnogogik), currently sleeping with the process of waking (hypnosleep), Wake (hypnopompic), concentration / focus (while watching TV, playing PS, etc.), Shocked, Pick emotion, Trance Figure, Tired (Bobby: 2014). The NLP techniques that can be used to solve a variety of problems, especially to be used in research and development are as follows:

VAK preferences and Eye Movement

Every experienced presented internally by the nervous system. Therefore body and mind is part of an integral system. Whatever happens in one part will have any effect on another part. Likewise with preference, if someone was in visual preference, then it will be easier to understand with a content of visual information. When there is no visual information, then the brain and the body as well will not respond easier.

In order to understand the preferences of students, teacher should know from the choices of the words used by them. To recognize the preferences of students through body language can

be clearly observed from the movement of the hand and eye. Addition detail of the characteristics of students preference can view as following table:

Table 1.2 Characteristics VOK

Visual	Auditory	Kinesthetic
Neat and tidy	Talking to yourself when working	Respond to physical attention
Speaking quickly	Easily distracted commotion	Touching peoples to get attention
Meticulous and detail	Moving the lips and pronounce it when reading	Standing close when talking to people
Concerned with the appearance	Enjoyed reading aloud and listening	Having the early development of large muscles
Given the visual association	Speaking with rhythm pattern	Having a bad writing
Not bothered by the commotion	Talkative	Use body cues the most
Readers quickly and diligently	Had difficulties to write but feel great talking	Unable to sit still for a long time
Scribbling without meaning when talking on the telephone or listening to a lesson	Learning with listening and remember what was discussed than seen	Memorizing with moves and see it

Source: Mahmud (2012: 90-94)

To be able recognizing eye movements according to the preference, it can be seen in figure 1.2 below:

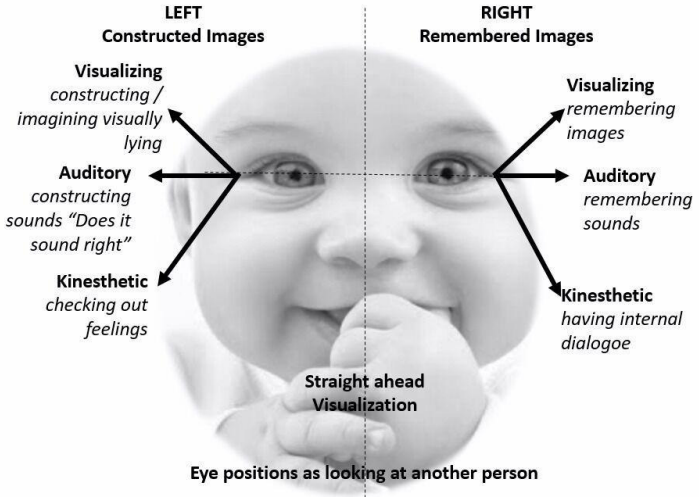

Figure 1.2 Symbols VOK in Eye Movement (Subiyanto, 2016c)

By knowing the preferences of individual students, the teacher will be easier to direct their students to use words that correspond to their individual preferences. That way, the students will more quickly capture the
teacher explanation carefully.

Meta Model

Meta models in NLP is a technique that is used to find information that is incomplete that gives the wrong meaning. Through meta-models, one is directed to obtain reconstruction new meaning correct by expanding the new possibilities on the mental map or make someone

understand what they are told to change a statement into a question using the word ask who, what, where, with whom, why and how and when (Afsoh, 2016a: 37-41). Example: When student making of the statement "I was never able to become champion". Teacher should use that statement for give some points, then asked a question using meta models in order to obtain students new perceptions, with kind of question "Who said that?" or “How would you feel if it turns out you can be a champion class?", and so on.

Editing Submodality

Editing submodality, this is one of the best techniques in NLP which to overcome the various problems such as fears, phobias, improve motivation, optimism, and others. Editing means changing or redesigning, being submodality is more detailed components of the modality itself. Modality is include visual, auditory, kinesthetic, olfactory, and Gustatory (Afsoh, 2016b: 16-18).

Anchor

Anchor is a form of stimulus (whether visual, auditory or kinesthetic) to stimulate the emergence of a response, such as: photos, songs, food, colors, and others. Anchor is formed based on a person's emotional condition. Anchor can occur in conditions of positive or negative according to the needs. This response formed exhaustively from emotions, mind, body language, and other things that follow under certain conditions a person (Subiyanto, 2016a: 71).

The anchor work in entire emotion of individual. Such as when people having watch a movie with a happy ending, then somehow after watching they feel of happiness also envelop all day activities despite already passed many hours. But, suddenly, these people try to change the feel from watch the film with death major players, certainly their sad feeling will also envelop the times. The story in the film indirectly can be positive or negative anchor. If we need the spirit or the feeling of happiness because in such bad conditions, then by considering the film the condition will appear as expected.

In psychological terms, this same emotional condition called "mood dependent memory" means that we are better able to remember material in the past if it complies with our current mood state (Matlin, 2005). Many studies have shown that environmental manipulation such as exposure to the music pleasant or unpleasant or variations in indoor lighting can have an influence on the emotional state. There are several types of anchor;*First* Sliding Anchor, this anchor is done by shifting the (Analog) to obtain state intensity gradually. *Second*, Stacking Anchor which the process of doing the hoarding anchor with similar quality at the same location known as Kinesthetic. *Third*, Collapsing Anchor which one technique to eliminate the influence of an Anchor. Collapsing Anchor can be done with the same system (Kinesthetic) or different system. And *Fourth*, Chaining Anchor, that anchor-making techniques to produce some effect on an ongoing basis.

State

State referred to the attachment of mental and physical processes that occur naturally in the human body. A positive or negative state one experiences will affect a person's physical changes such as breathing patterns, heart rate, posture, and others. Hence, that the state itself is a natural filter interpret someone when a particular experience. Examples of when a person is tired or in a bad mood, then that person is likely to respond to the situation poorly.

So, the state can be used to achieve a change in attitude that they willing to with state the coordinate. This state also, managed to achieve a change in attitude / behavior with 4 (four) steps: Understanding State, State Awareness, State alteration, and the last State Utilization. As for some of the terminology state are: Current State, Desired State, High Performance State, and the Know Nothing State (Afshoh, 2016a: 26).

Pacing Leading

In the Chinese tradition there is "Ride on the dragon first, then control it" well known term. Beside that, in Indonesia have "unknown, unloved" most known term. In applying the techniques of NLP hypnosis there is a term pacing-leading, using words to align the internal map of the interlocutors, the new steer toward the other person talks so that the interlocutors on condition they have no choice but have to answer "yes" word.

Well-formed Outcome (WFO)

WFO is one of the basic strategies offered by NLP to be practiced by organizations, institutions and individuals or groups in order to design a goal or aspiration to be realized by either (Afsoh, 2016b: 51). The steps are with express in positive sentences, make sure that the outcomes are in control, sought specific as possible, have the clear sensory benchmark evidence, contextual, have the resources, consider the alignment, and set an initial step.

In practice way, there are some examples of questions that can be used in order to identify the needs and expectations to be achieved include: What are the current problems or challenges for the organization?; Do they want to be different?; How will they know that things are different?; What will they see, hear and feel ?; What might their customers see?; Is there any benefit or loss caused to have these needs fulfilled?; What is the objective or realistic result?; What resources that may be needed to achieve the goal? Did they know of others who have achieved this goal?; Is it possible to modeled from them?; What are the first steps in achieving the objectives?; What is the last step? (Wake, 2011: 122). By identifying specific problems and expectations, it will facilitate the organization and individuals to determine the steps to solve problems and achieve the goals.

Milton Model

Milton Model is a communication model that also known as Hypnotic Pattern Language, which is a pattern of communication that is hypnotic. Milton Model is the result of the modeling of Milton H. Erickson, better known as the father of Modern Hypnotherapy. Milton Model uses abstract language / global and ambiguous which one can receive the information entered into the subconscious mind with little intervention as possible. Milton Model can be used to refine a suggestion / command with an abstract way but still get the desired response. There are several types of models: Simple Deletion milton, Comparative Deletion, Lack of Referential Index, Unspecified Verbs, Nominalization, Lost performatives, Mind Read, Cause Effect, Universal quantifiers, Modal Operator, Equivalent Complex (Afsoh, 2016a: 42-47).

Nested Loops

Nested Loops is a technique in delivering a message strung in a series of stories or information that is put on once and post from the main message. The message can be disguised

command (Embedded Command), or in the form of ideas that are deliberately disguised pinned (Seeding) (Afsoh, 2016b: 10).

Alphabet Game

These Alphabet games is use the alphabet as the basic ingredients as figure 2.3. There are three kinds of models alphabet game. *First,* pronounce the alphabet A to Y while moving the arms in accordance with the table L / R / T. *Second*, to say the alphabet Y to A while moving the arms in accordance with the table L / R / T. *Third*, Clients pronounce the alphabet Y to A according to the table while moving hands and feet in opposite directions (Afsoh, 2016b: 26-27).

ABCDEFGHIJKLMNOPQRSTU VWXY LRTTRLLRRTTLRTRTLRLTT LRLTT

Figure 2.3 Alphabet Games (Afsoh, 2016b: 26)

Chunking

Such as an idea or a belief system which not a stand alone but has been linked with other ideas. These linkages can be upwards which means an idea that has a broader main, and the idea of a sub-system of the main idea. The idea could also be down, which means more specify more components idea to look for its sub-sub ideas. Hence, the idea link are laterally which means providing equivalent alternative other ideas or equivalent (Afsoh, 2016b: 8).

Strategy

Each person would save a program in memory that can be used any time to solve a problem. This program is in the form of a sequence of thought and behavior that is influenced by an internal or external stimulus. In NLP, this program is referred to as the strategy. Recognizing strategy that we have to help us achieve many things. The success or failure of a person to solve the problems one reason is the strategy that them used. Likewise, if we have a picture of the success that we hope, then we can emulate successful people strategy for us to follow. This strategy saved in the order form Representational System and the form of images, sounds, sensations, internal dialogue, smell, or taste.(Afsoh, 2016a: 53).

Perceptual Position

In social life, there are different perceptions that need to be considered so that one can respond appropriately and proportionately to that perception as self, other people's perception, the perception of the viewer, and perception as a system. Naturally when interacting with the environment, a person tends to use the perception of themselves regardless of the perception of others so that forming behavior is less precise or lack the attitude.

Rapport

Rapport is a condition in which the formation of trust in a relationship that is mutual (Subiyanto, 2016b: 13). Rapport is used to build trust and minimizing the communication barriers. Rapport can be done in three ways, such as; *first,* matching can be done in two ways:

verbal (adjust predicate interlocutors) and non-verbal (body language and intonation to match the speaker). *Second*, with the mirroring mimicked the speaker as a mirror. *Third*, cross-over matching, which means match with the movement of different body parts (Afsoh, 2016a: 24).

Neuro Logical Levels

NLL is one of the techniques proposed by Roberts Dilts result of a collaboration between NLP knowledge and concepts of Logical Levels by Gregory Bateson who learn about the human behavior. NLL Robert Dilts concept provide a modeling of the aspects that can form the structure of human behavior, including the environment, behavior, capability, belief and values, identity, and spirituality (Afshoh, 2016b: 14).

Meta Program

Meta Program is a program that already exists (built-in) in a person whose every action affects them self. By recognizing the person Meta Program, it will be easier to recognize the potential of a person as well as how motivated him based Meta Program already has. Some examples of meta program is Towards - Away, Procedural - Optional, Internal - External, Sameness - Difference -Exception, and Proactive - Reactive (Afsoh, 2016: 30).

Right and Left Brain (Queue Words)

The left brain function to process information in the form of words, numbers, logic, analysis, sequence listing, and arithmetic-calculus, while the right brain processes information in the form of conceptual thinking, color, rhythm, visual-spatial, image and imagination. Brain left side controls the motor limb right, and vice versa; Meanwhile, the right brain controls the nature of short term memory, while the right brain has the property long term memory and can accept the colors, dimension, holism, imagination, creativity and rhythm also. That is the explanation why we are often able to remember faces and forget the names of people. The face is an image which is processed by the right brain is the nature of long-term memory, while the name or word processed our left brain that is the nature of short-term memory. The left brain is can receive logic, maths, linearit, language, sequence, and analysis.

Based on Sperry's study, according to Subiyanto (2016a: 92-93) state that not only the problem of information coming in our brains that need attention, but also related to the inclusion of such information queues are then processed by the brain to be connected to the existing memory before. Example: the phrase "let's study hard", then the first information that processed is "learned", memory is already had brain image of learning like a tired activities, boring, forced, difficult, and others then left brain working and effect appears is in accordance with pre-existing memory.

But, if the sentence was changed to "we learn only good", then the information is processed first is "good", the actual memory of the good one is something well verse like food, fun, and others, so that the effect appears is happy. If memory that appears first is happy, then the information will be affected next entry, which cought that study is happiness, and be diligent in study will always good and happiness.

Frame and Reframing

Frame is a person's attitude or perspective in response to the external world owned by an internal map. Reframing is the way a person in giving a new meaning to an event, the object

remains but has a new meaning from the process of reframing. As for some of the principles in reframing is Outcome frame, Ecologi frame, Evidance frame, As-if frame, Contrast frame, frame Agreement, and Backtrack frame.

For example, student with a tendency kinesthetic, it will not last long to sit still listening to the teacher's explanation. They will look for activities in order to move from his seat as a form of reflex their kinesthetic moves. In this condition, a teacher who did not understand student preference, gets easy give "mischievous" students label, for not listening to theirs. When student get "mischievous" label word, then the flow of information about the "rogue" has been entered into the memory. From the intonation of pronunciation, meaning the general word "rogue" facial expressions and body language when the pronunciation vivid in the memory of student. The possibility of any repetition will occur from other teachers and their friends that call they "mischievous" as well. Furthermore, the brain will begin to receive the meaning of "rogue" is the one that does not follow the teacher's words, from here the student will begin to believe against their self that was "mischievous" is their matter. Second, the \student will seek "rogue" figure, such as what kind of environment that being rogue, includes from another media such television, when they start to understand what kind of their label, they are finally become mischievous as shaped by the environment itself.

To avoid that risk, the frame and reframing it is important to do. The teacher must do observe at children who are has kinesthetic type, then developing student ability basic from theirs, it seems student better knowing about their self as well (Subiyanto, 2016a: 97-100).

IMPROVEMENT MATRIX OF PEDAGOGICAL COMPETENCE OF TEACHER THROUGH NEURO LINGUISTIC PROGRAMMING (NLP)

To find out more details about how to improve teachers' pedagogical competence through NLP, especially in Indonesia can be seen in the form of matrix as following table 1.3:

Table 1.3 Improvement Matrix of Pedagogical Competence of Teacher Through Neuro Linguistic Programming (NLP)

NO	VARIABLE	INDICATOR	PRACTICE USE NLP TECHNIQUE
1	Mastering the characteristics of students	a. Teachers can identify the characteristics of each learner in their class	a. Teachers classify learners by Visual-Auditory-Kinesthetic (VAK) and **"meta programs" preference. *** b. Teachers attempt to organize classes based on the **VAK identification and Meta Program of learners**.
		b. Teachers ensure that all learners have the same opportunity to actively participate in learning activities.	
		c. Teachers can set class to provide equal learning opportunities for all learners with disabilities and different learning abilities.	
		d. Teachers try to discover the cause of deviant behavior of learners in order to prevent such behavior does not harm other learners.	Teachers approached learners who misbehaves when spare time by "**Editing submodality**" technique * to provide a solution.
		e. Teachers help develop the potential and overcome the lack of learners.	Teachers help develop the potential and overcome the shortage of students by making "Anchor" on learners as needed

NO	VARIABLE	INDICATOR	PRACTICE USE NLP TECHNIQUE
		f. Teachers pay attention to learners with specific physical weakness in order to follow the activity of learning, so that students are not marginalized (excluded, mocked, inferior, etc.).	Teachers approached learners who misbehaves when spare time by way of reframing.
2	Mastering the theory and principles of learning which educates	a. Teachers provide opportunities for learners to master the age-appropriate learning materials and learning abilities through which variation of learning and activity settings	Teachers can determine the learning process and activities vary in learning implementation plan which has been adapted to the preferences of VAK (as column 1 above) by creating **"State"** and consider the theory of right and left brain.
		b. Teachers always ensure a level of understanding of learners towards specific learning material and adjust the following learning activities based on the level of understanding.	Teachers ensure students understanding use the **"Meta Model"** technique.
		c. Teachers can explain the reason for the implementation of activities that accomplish, either favorable or different plan, related learning success	Teacher explains the reasons for the selection of learning activities while motivating learners in a "**Pacing-Leading**" techniques.
		d. Teachers use a variety of techniques to motivate the willingness of learners.	
		e. Teachers plan learning activities that should mutually related, having regard to the purpose of learning and the learning process of students.	Teachers plan learning activities that correlate from early start to the end of the semester by using "**Chaining Anchor**" technique.
		f. Teachers must pay attention to the response of learners who understand yet of learning material and use it to improve the design of the next study.	Teachers pay attention to the response of learners with using the "**Meta Model**".
3	Curriculum development	a. Teachers can create a syllabus in accordance with the curriculum	Teachers create lesson plans in accordance with curriculum that accommodates the way of learning by **VAK as well as meta-program preferences** of learners.*
		b. Teachers designing lesson plans in accordance with the syllabus to discuss specific teaching materials so that learners can achieve the basic competencies specified	
		c. Teachers follow a sequence of learning materials with attention to learning objectives.	
		d. Teachers selecting learning materials basic on: (1) in accordance with the purpose of learning, (2) accurate and up-to-date, (3) according to age and ability level of learners, (4) be able to implemented in the classroom and (5) in accordance with the context of learners daily life.	Teachers select teaching materials appropriate to the learning objectives through Well-formed outcomes.

NO	VARIABLE	INDICATOR	PRACTICE USE NLP TECHNIQUE
4	Educational learning activities	a. Teachers implement learning activities in accordance with the draft that has been prepared in comprehensive and implementation of these activities indicate that teachers understand its purpose.	
		b. Teachers implement instructional activities that aim to help the learning process of students, not to examine purpose which make students feel depressed.	Teachers discover about the characteristics of each learner use **(VAK and Meta Program preferences)**
		c. Teachers communicate new information (eg additional material) according to age and ability level learners	
		d. Teachers response the mistakes made by the students as the stage of the learning process and not merely an error that must be corrected. For example: collected in advance the other learners who agree / disagree with the answer, before giving an explanation of the correct answer	Teachers response the misbehave doing by students with applying the basic assumptions of **NLP**
		e. Teachers implement learning activities appropriate curriculum content and associate it with the students day life.	Teachers associate learning with day life content through **Milton Model**
		f. The teacher made learning activities are varied with enough time for learning activities appropriate to the age and level of ability and retain the attention of learners.	The teacher made learning activities are varied by using **Nested loops, the theory of the right and left brain, as well as the Alphabet games**
		g. Teachers manage the class effectively without dominating or busy with their own activities so that all participants be able to utilized time productively	Teachers manage the class effectively with high dedication through **strategy**
		h. Teachers capable to use audio-visual media (including ICT) to increase the motivation of students in achieving the learning objectives. Customize learning activities designed to classroom conditions.	Teachers understand and provide many learning opportunities to students with **Perceptual Position**
		i. Teachers provide many opportunities for students to ask questions, practice and interact with other students	
		j. Teachers set the implementation of learning activities systematically to help the learning process. Example: teacher giving new information after evaluating the students understanding of the previous material.	Teachers set the implementation of learning activities systematically through **chunking strategy**
		k. Teachers use teaching aids, and / or audio-visual (including ICT) to increase the motivation of learners in achieving learning goals.	Teachers use teaching aids through **Sensory Acuity**
5	Development of students potential	a. Teachers analyze the learning outcomes based on any form of student assessment to determine the level of progress.	Teachers analyze the results of learners through **Meta Models.**

NO	VARIABLE	INDICATOR	PRACTICE USE NLP TECHNIQUE
		b. Teachers design and implement learning activities that encourage students to study according to skills and learning patterns respectively.	Teachers design and implement learning activities through **Neuro logical levels**
		c. Teachers design and implement learning activities to stimulate creativity and critical thinking skills of students.	
		d. Teachers actively assist the students in the learning process by giving attention to each individual.	Teachers discover about the characteristics of each students **(VAK and Meta Program preferences)**
		e. Teachers be able to identify correctly about the talents, interests, potential, and learning difficulties each sudents.	
		f. Teachers provide students learning opportunities in accordance with their respective ways of learning.	
		g. Teachers focus on the interaction with the students and encouraged to understand and use information which given or submitted.	Teachers interact with students using **Rapport Technique**
6	Communication with students	a. Teachers use questions to ascertain understanding and maintaining the participation of students, including providing open-ended questions that require students to respond with ideas and knowledge.	Teachers use questions to ascertain understanding and maintaining the participation of students using **Meta Models and Chunking**
		b. Teachers pay attention and listen to all the questions and the responses of students, without interrupting, unless necessary to help or clarify any questions or the response which disclosed.	Teachers pay attention and respond to learners with **Rapport Technique**
		c. Teachers respond to questions that learners with accurately, correct and up to date, which appropriate learning objectives and curriculum content, without embarrassing them.	
		d. The teacher presents the learning activities that can foster good cooperation between students.	The teacher presents the learning activities by **Neuro Logical Levels Strategy**
		e. Teachers listen and give attention to all students answer, either true or mighty be false to measure the level of understanding of students.	Teachers listen and pay attention to learners with **Rapport Technique.**
		f. Teachers give attention to questions of students and giving the completely response as well as relevant to eliminate their confusion.	Teachers respond to questions of learners using **Milton Models.**
7	Assessment and Evaluation	a. Teachers prepare assessment tools which appropriate to learning objectives to achieve a certain competence as written in the lesson plan.	Teachers prepare assessment tools appropriate to the learning objectives as in **Lesson Plan**.
		b. Beside of school formal assessment, teachers should do the assessment with different techniques and types of it. Then, announce the results and implications for the students, about learning materials comprehension that have been and will be studied.	

NO	VARIABLE	INDICATOR	PRACTICE USE NLP TECHNIQUE
		c. Teachers analyze the assessment results to identify topics or basic competencies in order to comprehension the strengths and weaknesses of each students for remedial and enrichment purposes.	Teachers analyze the results of the assessment using the **Meta Model** for improving the quality of future learning.
		d. Teachers utilize the feedback from students and reflect it to increase further learning, and can prove it through notes, journals learning, learning design, additional materials, and so forth.	
		e. Teachers utilize the assessment results as reference for drafting of learning materials that will be done next.	**Feedback of Lesson Plan**

CONCLUSION

Based on the above, the pedagogical competence of teachers is very important competencies that impact in direct contact with students. Yet, the teacher pedagogic competence related issues seem to never recede with various backgrounds causes. Neuro Linguistic Programming is a collection of techniques that can help a person to humans excelent, so it can be used as an alternative completion related teacher problems and it can be seen in the teachers' pedagogical competence matrix.

SUGGESTION

To the Department of Education include: Superintendent of Education Kindergarten/ Elementary and Special Education, Head of Junior Secondary Education and Senior Secondary Education, Head of Vocational Secondary Education and Higher Education, also Head of Teachers and Educational. To the Ministry of Religious Affairs as Head of Islamic boarding school, Head of Islamic High School, Head of Madrasah and Islamic Education in Primary School both cities, counties, regions and centers, improvement of pedagogical competence of teachers through Neuro Linguistic Programming (NLP) can be used as an alternative teacher training is regularly that held every year.

REFERENCES

Afsoh, I. 2016a. *Neo NLP Practitioner Certification*. NLP Practioner Training Material in Ketintang III Surabaya. 5 November 2016.

Afsoh, I. 2016b. *Neo NLP Master Practitioner*. NLP Practioner Training Material in Ketintang III Surabaya. 6 November 2016.

Andriawati, E. 2013. *Pengaruh Kompetensi Pedagogik Guru Terhadap Hasil Belajar Siswa Pada Mata Pelajaran Ekonomi Di SMA*. Skripsi. Pontianak: Universitas Tanjungpura. Retrieve from http://download.portalgaruda.or.

Chong, S. 2013. Section 2. Quality Assurance: Frameworks And Models In Higher Education Academic Quality Management In Teacher Education: A Singapore Perspective. *Quality Assurance In Education*, 22 (1): 53-64, (Emerald Group Publishing Limited 0968-4883).

Dowlen, A. 1996. "NLP - Help Or Hype? Investigating The Uses Of Neuro-Linguistic Programming In Management Learning", *Career Development International*, 1 (ISS 1 PP). (http://dx.doi.org/10.1108/13620439610111408).

Fazal, S. & Khan, M.I. & Majoka, M.I. 2014. Teacher Education In Transition: A Reform Program In Initial Teacher Education In Pakistan. *Annual Review of Comparative and International Education 2014 International Perspectives on Education and Society*. 25: 357-378. doi:10.1108/S1479-367920140000025020.

Giffiths, J. 2015. *Detik-Detik Saat Gunung Es Ini Ambrol Bikin Kamu Takut Kiamat*. Retrieved from http://plus.kapanlagi.com/video/detik-detik-saat-gunung-es-ambrol-ini-bikin-kamu-takut-kiamat-5d0e0f.html, accessed on 4 May 2016.

Kementerian Pendidikan Nasional. Direktorat Jenderal Peningkatan Mutu Pendidik dan Tenaga Kependidikan. 2010. *Pedoman Pelaksanaan Penilaian Kinerja Guru (PK Guru)*. Retrieved from http://bermutuprofesi.org, accessed on 23 October 2016.

Leijen, A.L., Kullasepp, K. & Anspal, T. 2014. Pedagogies Of Developing Teacher Identity. *International Teacher Education: Promising Pedagogies (Part A) Advances In Research On Teaching*, 22: 311-328, ISSN: 1479-3687/doi:10.1108/S1479-368720140000022019.

Mahmud, K & Idawati, M.H. 2012. *Bedah Otak*. Jombang: La Roiba Hanifida Training Center.

Maslow, A. 2003. *Hirarchy Of Needs Of Abraham Maslow*. A First Look At Communication Theory, Retrieved from http://www.afirstlook.com/docs/hierarchy.pdf.

Matlin, M.W. 2005. *Cognition*. (6th ed.). USA: John Wiley & Sons.

Maulipaksi, D. 2016. *7 Provinsi Raih Nilai Terbaik Uji Kompetensi Guru 2015*. Retrieved from http://www.kemdikbud.go.id, accessed on 11 April 2016.

Michelli, N.M. & Keiser, D.L. Eds. 2005. *Teacher Education For Democracy And Social Justice*. New York, NY: Routledge.

Peraturan Pemerintah Republik Indonesia Nomor 74 Tahun 2008 Tentang Guru. Dinas Pendidikan Provinsi Kalimantar Timur. Retrieved from (http://disdik.kaltimprov.go.id/read/pdfview/15), accessed on 11 August 2016.

Pollitt, D. 2010. *Human Resource Management International Digest*. Q Emerald Group Publishing Limited, 18 (4): 20-21, ISSN 0967-0734. doi: 10.1108/09670731011051496.

Priority S. 1994. *Neuro Linguistic Programming*. Retrieved from http://www.prioritysky.com. Accessed on 11 April 2016.

Roderique, G. & Davies. 2009. *Neuro-Linguistic Programming: Cargo Cult Psychology?. Journal of Applied Research in Higher Education*, 1 (ISS 2): 58-63. (http://dx.doi.org/10.1108/17581184200900014).

Santos, Y. 2011. *Apa Manfaat Belajar NLP*. Alfa Omega NLP Hypno Center, (Online), Retrieved from https://yussantos.com/artikel-praktis-hipnosis-dan-nlp/apa-manfaat-belajar-nlp/), accessed on 11 April 2016.

Skinner, H. & Croft, R. 2009. Neuro-Linguistic Programming Techniques To Improve The Self-Efficacy Of Undergraduate Dissertation Students. *Journal of Applied Research in Higher Education,* 1 (ISS 1): 30-38. (http://dx.doi.org/10.1108/17581184200900003).

Subiyanto, Y. 2016a. *21 Hari, Lejitkan Potensi Anak*. Yogyakarta: WR.

Subiyanto, Y. 2016b. *Effective Parenting with NLP Hypnosis.* Paper presented at the Effective Parenting with NLP Hypnosis training. Cuat Consulting-NLP Smart Indonesia. Surabaya: 9-10 April 2016.

Subiyanto, Y. 2016c. *Parenting Lejitkan Potensi Anak*. The material presented in WA Parenting Seminar. Cuat Consulting-NLP Smart Indonesia. 15 April 2016.

Viqraizin, V.V. 2015. Pengaruh Kompetensi Pedagogik Dan Kepuasan Kerja Terhadap Kinerja Guru Di Sekolah Dasar Negeri Se Kecamatan Gondokusuman Yogyakarta. *Skripsi*. Yogyakarta: UNY. Retrieved from http://eprints.uny.ac.id.

Wake, L. 2011. Applying NLP tools and techniques in an FMCG environment", Industrial and Commercial Training. *Emerald Group Publishing Limited*, 43 (ISS 2): 121- 125. doi.org/10.1108/00197851111108953.

Xu, S.J., & Connelly, F.M. 2009. Narrative Inquiry For Teacher Education And Development: Focus On English As A Foreign Language In China. *Teaching and Teacher Education*, 25 (2): 219-227. doi: 10.1016/j.tate.2008.10.006.

You, J. 2014. Selection: A South Korean Case, International Teacher Education: Promising Pedagogies (Part A) Advances In Research On Teaching. *Emerald Group Publishing Limited*, 22: 15-32. doi/pdfplus/10.1108/S1479-368720140000022036.

The Comparison in Learning Styles between Natural Science Students of Junior High School and Biology Students of Senior High Schools in Malang

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Abstract: Learning styles, according to some experts, are divided into three types, namely auditory, kinesthetic, and visual. Many researches related to learning styles have been conducted by some researchers, but there has not been any research investigating the comparison between students' learning styles at different class levels. This research is a qualitative research investigating the percentage of learning styles at different class levels. The research subjects were the students of class VII and class VIII of Junior High School Muhammadiyah 1 Malang, and the students of class X and class XI of Senior High School Muhammadiyah 1 Malang. The data were analyzed descriptively. The results of the research showed that the comparison of the percentage of learning styles of auditory, kinesthetic, and visual in class VII was 36.67%, 30.00% and 33.33%, in class VIII 13.34%, 33.33% and 53.33%, in class X 31.58%, 23.68 %, and 44.74%, and in class XI 61.54%, 15.38% and 23.08%. The auditory, kinesthetic, and visual learning styles of junior high school students were 25.00%, 31.67% and 43.33% respectively, and those of senior high school students were 46.56%, 19.53% and 33.91% respectively. The auditory learning style of senior high school students is 86.20% higher than that of junior high school students, while the kinesthetic learning style was 62.13% lower than that of the junior high school students, and the visual learning style of senior high school students was also 27.78% lower than that of junior high school students. Further research on the learning styles of students at the other grade levels are still required, as well as in elementary school level to obtain more information related to students' learning styles.

Keywords: biology, junior high schools, learning styles, natural science, senior high schools

The role of teacher in learning activities is very essential, such as a motivator, facilitator, and evaluator. As facilitator, the teacher has a responsibility to facilitate students' learning. Fairhurst and Fairhust (1995) stated that when a teacher was able to analyze the differences of students' needs, the education process was likely to be optimal and it could facilitate the students' learning. Dunn and Dunn (1986) argued that the concentration ability of each individual was different as well as their mental processes in receiving information. Thus educators should pay attention to how students learn, including their learning styles.

Abidin et al. (2011) stated that learning style was an important component in the learning environment. Furthermore, it was said that in a learning process, every individual had different learning styles because of a person's biological and psychological differences. Reiff (1992) stated that all learners had individual attributes related to their learning process. Keefe (1987) defined a learning style as a process of cognitive, affective, and psychological traits that served as a relative stable indicator of learners in relation to perceive, interact and respond to the learning environment. Brown (2000) defined a person's learning style as a way to receive and process information in a learning situation. Celce-Murcia (2001) defined learning styles as a general approach used by a person to interact and respond to the learning environment. Several

learning styles possessed by students are kinesthetic, audio and visual orientation (Dunn 1991). Dunn and Dunn (1986) explained that learning styles consisted of visual, auditory, kinesthetic, global, analysis, impulsive, reflective, individual, and group learning styles. Several kinds of the learning styles are divided into three specific dimensions, namely physiology (visual, auditory, and kinesthetic learning styles), psychology (global, analysis, impulsive, and reflective learning styles), and sociology (individual and group learning styles).

Biggs (2001) stated that learning styles had an important place in one's life. When a person realizes his learning style, he will integrate it into the learning process, so that he will learn easily and quickly and will become a successful learner. Coffield et al., (2004) stated that a learning style was important because of several reasons. The first reason is that people's learning styles differ one another, because everyone is naturally different from one another. Secondly, by knowing the students' learning styles, teachers will have an opportunity to teach using various learning strategies effectively. Learning by using one particular learning strategy will create a monotonous classroom atmosphere, so all students cannot enjoy. Thirdly, it can regulate many things in education, for example in terms of communication. In this regard, by realizing the students' learning styles, they will be more aware of the differences in students' motivation, so that the teacher will be able to organize a learning appropriately and in accordance with particular conditions.

Gilakjani (2012) stated that knowledge of learning styles also provided information for the students why they learned differently from each other. Thus, learning styles help to control the learning process. Furthermore, it is also said that it is essential that every person should be responsible for their own learning process, so that each individual needs to know their learning styles. The students who are aware of their learning styles, their confidence will consistently increase, which will affect their learning results.

Some previous researchers have found that learning styles have a correlation with students' academic achievement, such as Abidin, et al. (2011). A research on learning styles has also been conducted by Junko (1998) who found that students' learning styles had an effect on their learning behavior. Students having different learning styles will have different behaviors in relation to their way of looking at things, interacting and responding to their learning environment. Dunn, Beaudry and Klavas (1989), in their research, stated that the students had higher learning achievement when they learned in accordance with their learning styles.

Chuah Chong-Cheng (1988) stated that a person not only needed to understand his learning style, but also their academic regulation. Several other researches also reveal that the learning method which is appropriate with the students' learning styles and which pays attention to the students' learning styles can significantly improve their academic achievement in elementary and high school levels (Smith & Renzulli 1984). Therefore, it is important for teachers to examine the students' variations based on their learning styles both in junior high school level and in senior high school level.

METHOD

This research aimed at revealing the empirical data about students' learning styles in senior high schools. A survey research design was used to investigate, and ta assess opinions and preferences on a certain issue. This study was a descriptive interpretive research, to investigate the students' learning styles including auditory, kinesthetic and visual learning styles. The subjects of this research were the students of class VII, VIII, X, and XI of Junior and Senior High School with a total sample of 111 students. The data were taken using the learning style questionnaire covering auditory, kinesthetic, and visual learning styles supported

with the Likert scale. The questionnaires were developed based on the indicators of DePorter and Hernacki (1992). The data were analyzed using descriptive analysis in the form of the percentage of learning styles from each class.

RESULTS

The results of this research related to the students' learning styles in class VII and VIII of Junior High schools as well as in class X and XI of Senior High Schools in Malang showed the following results

Table 1. Summary of the learning styles of class VII, VIII, X and XI students in Malang

Learning styles	The number of students				Total amount
	class VII	class VIII	class X	class XI	
Auditory	11	4	12	8	35
Kinesthetic	9	10	9	2	30
Visual	10	16	17	3	46
Total amount	30	30	38	13	111

Table 1 shows that in class VII the percentage of the students having auditory learning style was 36.67%, kinesthetic learning style was 30%, and visual learning style was 33.33%. In class VIII the percentage of the students having auditory learning style was13.34%, kinesthetic learning style was 33.33%, and visual learning style was 53.33%. In class X the percentage of the students having auditory learning style was 31.58%, kinesthetic learning style was 23.68%, and visual learning style was 44.74%. In class XI the percentage of the students having auditory learning style was 61.54%, kinesthetic learning style was 15.38%, and visual learning style was 23.08%.

The results of this research show that the auditory, kinesthetic, and visual learning styles of the junior high school students were 25.00%, 31.67% and 43.33% respectively, and those of senor high school students were 46.56%, 19:53% and 33.91% respectively. The auditory learning style of senior high school students was 86.20% higher than that of the junior high school students, while the kinesthetic learning style of the senior high school students was 62.13% lower than that of the junior high school students, and the visual learning styles of senior high school students was also 27.78% lower than that of the junior high school students. These results are still a tentative picture obtained from this research. Further researches are needed to confirm the empirical data obtained from this research.

DISCUSSION

The results of the data analysis show that the learning styles of each individual were different, both in junior high school students and in senior high school students. Based on the results of the research which was limited to class VII, VIII, X, and XI, it can be seen that the percentage of auditory learning style of senior high school students was higher than that of the junior high school students, but the percentages of kinesthetic and visual learning styles of senior high school students were lower than that of the junior high school students. Rose and Malcolm (2002) stated that the tendency of the students' learning styles in the 5th grade until the 12th grade was mostly kinesthetic learning style with the percentage of 37%, followed by auditory learning style as much as 34% and visual as much as 29%. This research was conducted

on 5000 students in the United States, Hong Kong and Japan. The students' learning styles in elementary schools have been previously revealed by Barbe and Milone (1981), stating that the learning styles the elementary school students strongly have were visual, followed by auditory, and lastly by kinesthetic learning style. On the other hand, Peacock (2001) revealed that the learning styles of most EFL and ESL students was kinesthetic. Rose and Malcom (2002) explained that a person's learning style will change or vary as he/she grew up. The results differences uncovered between this research and the previous researches might be affected by the number of the research samples which was very different. Therefore, to get more information related to the tendency of the students' learning styles, further research using a bigger number of samples and using more various education levels, class levels, age levels is required.

Felder and Siverman (1998) stated that learning styles were defined as a person's characteristics, strengths, and preferences in receiving and processing information. Therefore everyone has their own method in managing their learning strategies. Franzoni and Assar (2009) stated that students tended to learn in different ways. Furthermore, it was said that teaching should not only reflect teachers' teaching styles, but also should be designed to suit with the students' learning styles. Gilakjani (2012) explained that there were several types of student's based on learning styles, namely visual learners, auditory learners, and kinesthetic learners. The students having a visual learning style will learn better by using graphs, charts, and pictures. Auditory learners will learn better by listening to a lecture and reading; while kinesthetic learners will learn better by doing, for example by doing practical work.

Different learning styles at each level of education might be influenced by various factors during the learning process. Dunn and Dunn (1978) wrote that the learners during the learning process were influenced by (1) the immediate environment (sound, light, temperature, and design); (2) personal emotionality (motivation, persistence, responsibility, and flexibility); (3) sociological needs (self, spouse, peers, team, maturity); and (4) physical needs (power of perception, nutrition, time, and mobility). Furthermore, it was also stated that when teachers implemented a learning model which suited the students' learning styles, the students would have a better attitude, more efficient in terms of the learning time and got higher test scores.

Dunn and Dunn (1978) also stated that although the students' learning styles in one class varied, teachers should try to make changes in the teaching and learning process in the classroom that could be beneficial to all learning styles, for example related to the learning model used, the design of the classrooms, the group formation, and the students' learning activities. Gilakjani (2012) stated that good students were those who were able to assess and understand the importance of an information / material presented in the classroom. However, if the students are not interested in the learning material presented, they will not learn the learning material. To achieve the learning objectives, it is essential for teachers to implement a learning model which makes the class environment interactive.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data obtained from the junior and senior high schools in Malang with a total sample of 111 people, it can be concluded that the percentage of the auditory learning styles of students experienced an increase from Junior High school to Senior High School. However, the percentage of the kinesthetic and visual learning styles of students experienced a decrease from Junior High School to Senior High School. Thus, it can be seen that the learning styles at each school level cannot clearly be determined yet. Further researches related to learning styles on each level of education are required. Further researches can use a bigger number of samples and more complete data at various levels of education. It is very essential for teachers to know

their students' learning styles because the students will learn more optimally when learning models implemented are suitable with their learning styles.

REFERENCES

Abidin, M.J.Z., Rezaee, A.A., Abdullah, H.N., & Singh, K.K.BB. 2011. Learning Styles and Overall Academic Achievement in a Specific Educational System. *International Journal of Humanities and Social Science, 1*(10), 143-152.

Barbe, W.B., & Milone, M.N. 1981. What we know about modality strengths. *Educational Leadership, 38* (5), 378-380.

Biggs, J. 2001. *Enhancing Learning: A Matter of Style or Approach? Perspectives on Thinking, Learning and Cognitive Styles, R. J. Sternberg, L. F. Zhang (Eds.).* Mahwah, Lawrance Erlbaum Associates, N. J., ISBN: 0-8058-3431-1, 276.

Brown, H.D. 2000. *Principles of language teaching and learning, (4th ed.)*. White Plains, NY: Longman.

Celce-Marcia, M. 2001. *Teaching English as a second or foreign language, (3rd ed.).* Dewey Publishing Services: NY.

Chuah Chong-Cheng. 1988. Sinar Cendekia. Malaysia, Penang: Universiti Sains Malaysia (USM).

Coffield, F. 2004. *Learning Styles and Pedagogy in Post-16 Learning. A Systematic and Critical Review.* Learning and Skills Research Centre, London, ISBN: 1853389189781853389184.

Deporter, B. & Hernacki, M. 1992. *Quantum learning*. New York: Dell Publishing.

Dunn, R. 1991. Do students from different cultures have learning styles? *InterEd, 15*, 12-16.

Dunn, R., & Dunn, K. 1978. *Teaching Students through their Individual Learning Styles*. A Practical Approach. Prentice Hall, Reston, VA., ISBN: 10: 0879098082, 336.

Dunn, R., & Dunn, K. 1986. The Dunn and Dunn learning style model of instruction. [Online] Available: http://www.unc.edu/depts/ncpts/publications/learnstyles.htm (August 10, 2016).

Dunn, R.J. Beaudry, and A. Klavas. 1989. Survey of research on learning styles. *Educational Leadership March*, 50-58.

Fairhurst, A.M. & Fairhurst, L.L. 1995. *Effective teaching, effective learning*. California: Davies-Black Publishing.

Felder, R. & Silverman, L. 1988. Learning and Teaching Styles in Engineering Education. *Engineering Education, 78* (7), 674-681.

Franzoni, A.L., & Assar, S. 2009. Student Learning Styles Adaptation Method Based on Teaching Strategies and Electronic Media. *Educational Technology & Society, 12* (4), 15–29.

Gilakjani, A.P. 2012. Visual, Auditory, Kinaesthetic Learning Styles and Their Impacts on English Language Teaching. *Journal of Studies in Education, 2* (1), 104-113. ISSN 2162-6952.

Junko. 1998. *Learning styles and error correction: How do learning styles affect students' perceptions towards error correction in a foreign language classroom?* [Online] Available: http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/17/86/35.pdf (June 17, 2016).

Keefe, J.W. 1987. *Learning styles: Theory and practice*. Reston, VA: National Association of Secondary School Principals.

Peacock, M. 2001. Match or mismatch? Learning styles and teaching styles in EFL. *International Journal of Applied Linguistics, 11* (1), 1-20. Plains, NY: Longman. http://dx.doi.org/10.1111/1473-4192.00001.

Reiff, J.C. 1992. *Learning styles. Monograph*. Washington D.C.: National Education Association of the U.S.

Rose, C. dan Malcolm J.N. 2002. *Accelerated Learning For The 21th Century*: Cara Belajar Cepat Abad XXI. Jakarta: Nuansa.

Smith, L. & Renzulli, J. 1984. Learning style preference: A practical approach for classroom teachers. *Theory into Practice, 23*(10), 45-50.

Preparation of Various Type of Medicinal Plants Simplicia as Material of *Jamu* Herbal

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Abstract. The people generally did not know how to stock simplicia as a herb. Usually the people just know how to make the herbs with boiling the material. Simplicia stocking with health requirements still yet to be considered, they lack in how to collect, make, and save. The objective of this research is to describe hygiene simplicia stocking. Descriptive qualitative research method. Research result in simplicia stocking in medical herbs: how to collect the material; and the technique.

Keyword: simplicia, medicinal plants.

Indonesian society has been using medical herbs from times to times in order to improve health (promotive), restore health (rehabilitative), disease prevention (preventive), and curing disease (curative). In this modernization day, plants that used as a medicine is vast in growth. The herbal needs as a medicine is important, that it needs solution on how to provide the medical plant from the environment. Medical plant can be empowered with the local resident in Taman Nasional Bromo Tengger Semeru (TNBTS) in Malang, East Java.

The result of research in 2015 and 2016 indicates that medical plant in TNBTS Malang is rarely used by local resident as a medicine. The herbaceous plants and trees identified as a medical plant from Zingiberaceae and Solanaceae tribe. Total species that has been found is 478 species. Based on the survey from 5 districts in Malang, indicates that the local resident in TNBTS less care about the biological resources around them that has economical value and health value (Indriwati, 2015). The indication that showed local resident's un-involvement for the medical plant is showed by the abandonment of the plants that have potential to be a medicine. For instance in Ngadas village in Poncokusumo district, the leek (*Allium fistulosum*) picked only the biggest one to sell, while the remaining is just wasted (Ella, 2016); *Sizygium polyanthum* is abundant in Wangkalkidul village Poncokusumo district (Restu, 2016; Rimba, 2016); *Codiaeum variegatum* is abundant in Tumpang district (Rosita, 2016); *Hymenocallis littoralis* is abundant in Wagir district (Nabila, 2016); *Cordiline fructicosa* is abundant in Turen district (Puspa, 2016); and *Ixora paludusa* is abundant in Bantur district (Nanik, 2016).

Fact about this un-involvement done by locals with the medical plants, is concluded from the existence of synthetic medicine the locals get from the drug store than using the said medical plants. Moreover, the locals also use a shortcut to go to drug store for a generic drug with affordable price and service. This low public knowledge about local biological resource to overcome various diseases needs to be improved so that the knowledge and culture of the locals of their ancestors about traditional medicine can be used once more and preserved.

The form of the promotion can be start with a simplicia as a raw material for traditional herb. The standardization of simplicia aside from raw material for herb, can also used to overcome the needs of raw material of herb on certain season, for example : rain season, where the weather is not suitable for making of simplicia, because the raw material can only be harvested on the certain season. The making of traditional herb needs certain something so that the herb that consumed by client is healthy. The quality herb is made with a raw material

selection, produced from a simplicia considering the hygienic standard. The quality parameter of simplicia can be based on content of moisture after drying, in this case it is less than 10%.

Several countries in Europe, Asia, America and WHO decided standardization row material for herbal product. The standardization of simplicia that will used for the making of traditional herbs must fulfill the requirements of monograph published by the official Department of Health (Materia Media Indonesia, 2006). Simplicia product that directly consumed must meet the requirements of pharmaceutical products in accordance with applicable regulations (Depkes RI, 2000). Characterization simplicia including macroscopic test, microscopic test and simplicia identification (Depkes RI, 1995). The percentage of water content that is used as a parameter is less than 10% with expectation the simplicia is clean and not overgrown by fungus (Winangsih, 2013). The chemical content should not be damaged due to the drying process (Pramono, 2006).

The quality of herbs is determined by the stock of simplicia from variety of plants that is needed. Simplicia stocking is an important phase in keeping the balance of chemical component in simplicia. Simplicia stocking included how to gather, make, and save. The gathering of the specimen for simplicia depends on the plants, and the age of the plants. The part of the plants that required is the root and rhizomes, bark, leaves and shoots, flowers, fruits, and seeds. Roots and rhizomes are collected when the growth is stopped. Bark is collected when the plant is old enough. Leaves and shoots were collected when the plant is blossom. The flowers is collected when the pollen is formed. The fruit is collected when it is old enough but not too ripe, while the seed is collected when the fruit is old. An agricultural product collected when the plants begin to form a flower, while the woody plant is taken when the plant is old.

How to make simplicia is start from wet sorting, washing, drying, chopping, and dry sorting. Wet sorting is done to remove foreign object from the plants. Washing is done for cleaning the plants from microbe and dust with a flowing water, the duration of washing is different from each different plants. Chopping is done to speed up the drying process, easier for milling, and packing. Chopping sought not too thin to avoid the loss of active substance in the plants. Simplicia drying, must meet the quality requirements in order to keep the simplicia from fungus, the active substance was not damaged by the action of the enzyme and its chemical content is not damaged.

Drying technique can be done naturally and artificially. Drying naturally can be done with direct sun light and with wind. Drying artificially can be done with blower and oven. The place for simplicia drying, is recommended using a woven bamboo with a hole in it for air circulations, and not using metal to prevent the active substance for being damaged. Artificial drying using blower and oven need to pay attention to temperature, pressure and airflow required, to keep the active substance. Dry sorting is done to remove foreign object in dry simplicia, using manual technique and mechanic. Saving is start by packing with a plastic, bottle, or other material. Saving is done to avoid simplicia being damaged by light, oxidation, enzimatic reaction, dehydration, bacteria, bugs, and dirt.

The people generally can make their own herbs, but they are still unable to prepare the simplicia as a raw material that meet the health requirements. They make simplicia as they know from their ancestor, with traditional process. Material that will be used as simplicia usually without sorting, washing, and drying process without regard to the stability of the chemicals and contamination of a wide variety of microbes (Indriwati, 2016). This also goes for the simplicia saving are done without regard to the quality standard simplicia. The objective of this research is to describe hygiene simplicia stocking to help the people in Malang to make traditional herbs from herbal ingredients.

RESEARCH METHODOLOGY

The study was conducted in the laboratory of Biology, State University of Malang in August to October 2016. The material used was Sizygium polyanthum plants (roots, stems, leaves, flowers, fruits), *Cordiline fructicosa* (leaf), *Codiaeum variegatum* (leaves and roots*), Allium fistulosum* (leaves and roots), Hyacinths (*Hymenocallis littoralis*) was obtained from various districts in the regency of Malang. The tools used in the simplicia process is winnowing, knife / scissors, washing tool (bucket), drying tools (blower, oven), tools storage (boxes, plastic bags, bottles, labels), stationary. Sampling method done by purposive sampling based on the abundance of plants in a region. Samples of *Sizygium polyanthum* was obtained from the sub – district of Poncokusumo, sample flowers of *Allium fistulosum* (leek) taken from the sub – district of Poncokusumo, *Codiaeum variegatum* from the sub – district of Tumpang, *Cordiline fructicosa* from the sub – district of Turen, *Hymenocallis littoralis* from sub – district of Wagir, and *Ixora paludusa* from sub – district of Bantur ,

This study used a Completely Randomized Design with 5 treatments and repeated 3 times. The treatments tested were: 1) The water content of each part of the plant, 2) long drying time of each part of the plant, and 3) how to drying. Simplicia quality parameters were analyzed by levels of water that contained after drying is not more than 10%. How determination of moisture content using the dry weight percentage calculations divided to the wet weight multiplied by 100%. This method is done by carefully weighing the dried material simplicia before and after drying. The direct sun drying is done for 3-6 days, the length of time of drying during 3 hours (08.00 to 11:00). Drying using a dry wind, carried out for 4-6 days, the length of time of drying for 3 hours (08.00 to 11:00).

RESULTS AND DISCUSSION

Analysis of the quality parameters simplicia with five drying treatments was observed and showed there are differences among the treatments of drying the moisture content of simplicia. Drying oven showed that the lowest water content (8.16%), then sequentially followed by a combination of sun-blower (8.48%), blower (8.76%), direct sunlight (9.52%), and dry wind (9.81%). Drying oven, the combination of sun-blower, and blower showing a relatively low water content but the significance of test results among the three treatments were not significantly different. In addition, the three treatments showed significantly different from the other two treatments (direct sunlight and dry wind). Drying with direct sun and dry wind showed there was no significantly different results. Analysis of the five drying treatments result showed there was difference among treatments drying towards the long drying time. Drying oven showed the shortest length of time (14.42 hours), the next in succession, followed by a combination of sun-blower (16.37 hours), blower (16.57 hours), the direct sun (87.34 hours), and dry wind (108.04jam).

Simplicia best quality results compared to the way the wind dried, oven, drying in the sun, or the blower only. It can be seen from all the observed variables (Table 1).

Water Content in Different Ways Drying Plants

Table 1 Crude Quality Characteristics Drying In Different Ways

Drying methode	*Simplisia Randement*																																	
	Syzigium polyanthum															*C.fructicosa*			*C. variegatum*						*A. fistulosum*						*H. littoralis*			*I. paludusa*		
	Root			Bark			Leaf			Flower			Fruit			Leaf			Root			Leaf			Root			Leaf			Leaf			Flower		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Sun and Blower	8.56	8.85	7.88	8.59	8.44	8.25	7.94	8.24	8.75	7.88	7.90	8.08	8.06	8.30	8.56	8.24	8.73	7.94	8.14	8.76	8.45	8.04	8.54	8.01	8.20	8.88	8.62	8.22	8.49	8.19	9.90	7.75	7.96	8.49	7.36	8.21
Blower	8.94	9.15	8.11	9.28	8.98	8.75	9.01	8.94	9.90	8.11	8.25	8.30	8.33	8.45	9.32	9.04	8.95	9.01	8.98	8.88	8.05	8.84	8.67	8.31	8.80	8.96	8.97	9.06	8.98	8.37	8.75	7.89	8.23	8.78	7.41	8.33
Oven	8.05	8.16	7.73	8.17	8.18	8.11	7.52	8.11	8.16	7.73	7.83	7.89	7.74	8.18	8.47	8.01	8.25	7.51	8.18	8.16	7.52	7.69	8.22	7.89	8.35	8.77	8.53	7.81	7.73	8.00	8.16	7.50	7.81	7.41	7.25	8.02
Sun	9.44	10.07	8.54	9.60	9.68	10.00	9.58	9.52	9.97	8.54	9.04	8.91	9.32	9.74	10.03	9.62	9.97	9.58	9.38	9.55	10.01	9.52	9.75	8.66	9.40	9.76	9.57	9.48	9.45	9.04	10.07	9.99	9.67	9.03	8.27	8.47
Win	9.90	10.02	9.77	9.94	9.88	10.15	9.82	9.85	10.14	9.77	9.79	9.99	9.74	10.22	10.35	9.83	10.27	9.82	9.58	10.07	9.90	9.72	10.00	9.76	9.50	9.88	9.65	9.44	9.54	9.42	10.02	10.07	9.78	9.26	8.51	8.69

Table 3. DMRT of Water Content in Simplisia Flowers

Flower					
S. polyanthum			***I. paladusa***		
Drying Methode	Water content	Notation DMRT	Drying Methode	Water Content	Notation DMRT
Oven	7.82	a	Oven	7.56	a
Sun & Blower	7.95	a b	Sun & Blower	8.02	a
Blower	8.22	b	Blower	8.17	a
Sun	8.83	c	Sun	8.59	b
Win	9.85	d	Win	8.82	b

Table 4. DMRT of Water Content in Simplisia Root

Root								
S. polyanthum			***C. variegatum***			***A. fistulosum***		
Drying Methode	Water Content	Notation DMRT	Drying Methode	Water Content	Notation DMRT	Drying Methode	Water Content	Notation DMRT
Oven	7.98	a	Oven	7.95	a	Oven	8.55	a
Sun & Blower	8.43	a b	Sun & Blower	8.45	a	Sun & Blower	8.57	a
Blower	8.73	a b	Blower	8.64	a	Blower	8.91	a
Sun	9.35	b c	Sun	9.65	b	Sun	9.58	b
Win	9.9	c	Win	9.85	b	Win	9.68	b

Table 5. DMRT of Water Content in Simplisia Leaves

Leaf												
S. polyanthum			***C. fructicosa***			***C. variegatum***			***A. fistulosum***			***H. littoralis***		
Drying Methode	Kadar Air	Notasi DMRT	Drying Methode	Kadar Air	Notasi DMRT	Drying Methode	Kadar Air	Notasi DMRT	Drying Methode	Kadar Air	Notasi DMRT	Drying Methode	Kadar Air	Notasi DMRT
Oven	7.93	a	Oven	7.92	a	Oven	7.93	a	Oven	7.85	a	Oven	7.82	a
Sun & Blower	8.31	a	Sun & Blower	8.3	a	Sun & Blower	8.2	a b	Sun & Blower	8.3	b	Sun & Blower	8.29	a
Blower	9.28	b	Blower	9	b	Blower	8.61	b	Blower	8.8	c	Blower	8.54	a
Sun	9.69	b	Sun	9.72	c	Sun	9.31	c	Sun	9.32	d	Sun	9.91	b
Win	9.94	b	Win	9.97	c	Win	9.83	c	Win	9.47	d	Win	9.96	b

Table 6. DMRT of Water Content in Simplisia Bark and Fruits

S. polyanthum					
Bark			**Fruit**		
Drying Methode	Water Content	Notation DMRT	Drying Methode	Water Content	Notation DMRT
Oven	8.15	a	Oven	8.13	a
Sun & Blower	8.43	a	Sun & Blower	8.31	a
Blower	9	b	Blower	8.7	a
Sun	9.76	c	Sun	9.7	b
Win	9.99	c	Win	10.1	b

Sequentially parts of plant that occupied the lowest water content: flower, root, leaf, fruit and bark. Drying method which is more effective in a sequence that is oven, sun & blower, blower, sun and win. With oven drying method is more effective in the drying of simplicia in order to obtain the lowest water levels are the flowers of *I. paladusa* amount 7.56% and flower plants *S. polyanthum* amount 7.82%. The water content of simplicia dried in an oven using a temperature of 65 °. Drying the flowers and leaves must be maintained to its original color and aroma of the plants have not changed. In general herb leaves and flowers can be dried only between a temperature of 20 ° - 40 ° C, bark and roots at a temperature of 30 ° - 65 ° C (Manoi, 2006).

The drying method of simplicia on a plant of *I. paladusa* and *S. polyanthum* using the oven, sun & blower and blower did not show the different significantly, but differs significantly by using sun drying methods and wind. Due to the temperature of the environment when done naturally with long drying time of drying for 3 hours (08.00 s.d 11.00), natural drying temperature (wind and solar) has a temperature for almost ranging from 30 ° -35 ° C. Low water content by oven drying method is caused by the higher temperature used, So as to be higher the process of transpiration (Winangsih, et al, 2013). Oven drying method with a faster and give better results in the review of terms of physical appearance (Cahyono, et al, 2011). Flowers of *I. paladusa* has the lowest water levels due to the funnel-shaped petals with a length of 0.5 cm, and compressed while occupying the second position with low water content which *S. polyanthum* flower with petals like a bowl shape, a length of about 4 mm, and quickly fall out, based on the characteristics of the water content at the flower had a lower rate and faster release of water in the form of water vapor. According to Pramono (1985) that the drying of the flowers and leaves must be maintained to its original color and aroma of the plants have not changed. In general herb leaves and flowers can be dried only between a temperature of 200-400 C, bark and roots at a temperature of 300-650 C. Moreover, according to Brotosisworo (1984) the changes that occur during the drying is enzymatic hydrolysis, the browning accompanied by flavor alteration and its activity, fermentation, oxidation and polymerization.

The next part is the root of plant organs, with the sequence of a plant that has the lowest water content by oven drying methods, namely *C. variegatum* 7.95%, 7.98%, *S. polyanthum,* and *A. fistulosum* 8.55%. Root drying method using an oven, sun & blower, and blower did not differ significantly, but differs significantly by using sun drying method, and win. On *C. variegatum* plant species and *S. polyanthum* has a taproot, and light yellow and brown so that the level of water in the two plants are not much different, whereas the roots of the *A. fistulosum* have root fibers, flat, brownish white, and not long. When the roots of the plants *A. fistulosum* dried then the color changes to yellow, the stronger intensity of the yellow color of the root *A. fistulosum* the flavonoids contained in the extract will be higher.

The next plant organ part that leaves, with a sequence of a plant that has the lowest water content by oven drying method is the plant amounted to 7.82% *H. littoralis, A. fistulosum* by 7.85%, amounting to 7.92% *C.fructicosa*, *C.variegatum* amounted to 7.93 %, and *S. polyanthum* amounted to 7.93%. Leaf drying method using the oven, sun & blower, and blower did not differ significantly, but differ significantly from the drying method using the sun, and win. At species *H. littoralis* has a single leaf, lanceolate, length of 32-120 cm, 3-10 cm wide, thick, tapered tip and when the cross section seen green holes, holes that makes the leaves of *H. littoralis* has the level of water is low compared to other plants in leaf organs and accelerate the process of transpiration, *A. fistulosum,* the plant has leaves elliptical leaf-like cavity in the pipe (Sumpena, no year), this plant also has a number of water content not much different from plants *H. littoralis*. *C.fructicosa* plant has a special feature single leaf with warnam brownish red and some are green, oblong-shaped with 20-60 cm long and 5-13 cm wide. Drying with wind aims to prevent the loss of the enzyme and secondary metabolites contained in sempel caused by rising temperatures (evaporate) or reactions that occur due to UV rays from the sun (Gunawan, et al, 2013). *C.variegatum* plants have a single leaf, alternate, petiole rounded, 1-4 cm long leaf shapes vary lanceolate, elliptical, flutter, undulations and circular egg, smooth shiny surface and 25-35 cm long leaves, and plants S. polyanthum single leaf lies opposite, with stems up to 12 mm. Leaf blade elliptic oblong, narrowly elliptic or lanceolate, 5-16 x 2.5 to 7 cm, bald, with 6-11 secondary veins, and inline apparent intramarginal veins clearly seen near the edge of the blade, speckled oil glands which is very soft (Direktorat Bina Perbenihan Tanaman Hutan, 2012), leaves of *S. polyanthum* have a thick leaf meat so that the level of water held much different from *H. littoralis*. Cutting the leaves also affect the speed of the process of transpiration (loss of water in the tissues). Selection of the leaves used are healthy leaves with a characteristic flourish, no black spots and free of insects.

The next plant organ part is the fruit of *S. polyanthum* with the level of water at 8.13% through drying oven method. Fruit ranks fourth in the number of water levels nearing 10%. The laurel is a berry fruit, round, 8-9 mm in diameter, young fruit is green, after cooking to dark red to purple-black, and it feels a bit astringent (Direktorat Bina Perbenihan Tanaman Hutan, 2012), due to larger fruit diameter, causing the amount of water content in the fruit is nearing 10%.

The next part of plants organ namely bark on *S. polyanthum* plant with the amount of water content as 8.15% by oven-drying method. A bark occupies the fourth order in the amount of water content almost 10%. The percentage of the number of water content on fruits and bark are not too different. It caused by the thickness of the bark on the *S. polyanthum* woody plant that categorizes into chelates wood (building material and household furniture) so that the amount of water content obtained is greater, bark contains of tannin which is used as a dye and for preservative nets, the material woven bamboo and others (Direktorat Bina Perbenihan Tanaman Hutan, 2012).

Time of Simplicia Drying (in hours) in the Various Ways of Drying

Table 7.Time of Simplisia Drying in the Various Ways of Drying

Drying methods	LAMA PENGERINGAN DALAM JAM																																						
	Syzigium polyanthum															C.fructicosa			C. variegatum						A. fistulosum						H. littoralis			I. paludosa					
	Root			Bark			Leaf			Flower			Fruit			Leaf			Root			Leaf			Root			Leaf			Leaf			Flower					
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Sun and Blower	25.34	24.55	25.06	26.54	26.55	26.36	24.53	24.45	24.05	18.10	18.25	18.45	20.55	21.05	21.30	19.20	19.35	18.55	11.55	11.50	12.00	13.05	13.10	13.45	11.05	11.10	11.55	12.25	12.55	11.55	16.45	16.30	15.55	7.10	7.50	7.45			
Blower	27.23	26.58	27.15	28.53	27.57	28.55	25.55	25.00	25.08	19.05	19.20	18.50	22.15	22.30	22.45	20.10	20.15	20.30	12.45	12.30	12.35	15.15	15.05	14.55	10.20	10.35	10.55	14.20	13.55	14.05	17.20	17.50	18.00	9.20	9.55	9.45			
Oven	23.20	23.45	22.55	26.42	25.42	24.45	23.55	24.00	24.15	17.30	17.55	18.05	20.10	20.15	19.55	18.45	17.55	18.40	10.45	11.05	11.00	12.20	12.55	13.05	9.40	9.35	9.30	10.25	10.25	10.45	15.15	14.55	15.05	4.05	4.30	3.55			
Sun	90.30	89.50	92.10	128.15	131.25	129.45	95.30	99.00	97.15	108.25	109.05	110.05	118.45	110.55	120.15	144.55	146.20	145.50	99.05	98.15	99.10	94.25	95.20	93.55	72.50	72.35	73.05	76.15	77.05	76.55	128.00	126.55	127.15	23.55	24.05	23.45			
Win	139.35	135.45	140.05	167.45	170.05	169.10	144.05	150.05	149.30	125.15	126.30	124.55	130.20	129.55	131.30	161.15	163.05	162.45	109.55	112.05	111.30	107.30	106.45	107.05	73.40	74.10	73.55	85.45	87.05	87.00	132.25	133.15	132.45	35.15	36.05	35.55			

Table 8. DMRT of Water Content Test on Simplisia Flower

Flower					
S. polyanthum			***I. paladusa***		
Drying Method	Water Content	Notasi DMRT	Drying Method	Water Content	Notasi DMRT
Oven	17.63	a	Oven	3.97	a
Sun & Blower	18.27	a b	Sun & Blower	7.35	b
Blower	18.92	b	Blower	9.4	c
Sun	109.12	c	Sun	23.68	d
Win	125.33	d	Win	35.58	e

Table 9. DMRT of Water Content Test on Simplisia Root

Root								
S. polyanthum			***C. variegatum***			***A. fistulosum***		
Drying Method	Water Content	NotasiDMRT	Drying Method	Water Content	Notasi DMRT	Drying Method	Water Content	Notasi DMRT
Oven	23.07	A	Oven	10.83	a	Oven	9.35	a
Sun & Blower	24.98	a b	Sun & Blower	11.68	a b	Sun & Blower	10.37	b
Blower	26.99	b	Blower	12.37	b	Blower	11.23	c
Sun	90.63	C	Sun	98.77	c	Sun	72.63	d
Win	138.28	D	Win	110.97	d	Win	73.68	e

Table 10. DMRT of Water Content Test on Simplisia Leaf

Leaf														
S. polyanthum			***C. fructicosa***			***C. variegatum***			***A. fistulosum***			***H. littoralis***		
Drying Methode	Kadar Air	Notasi DMRT	Drying Methode	Kadar Air	Notasi DMRT	Drying Methode	Kadar Air	Notasi DMRT	Drying Methode	Kadar Air	Notasi DMRT	Drying Methode	Kadar Air	Notasi DMRT
Oven	23.9	a	Oven	18.13	a	Oven	12.6	a	Oven	10.32	a	Oven	14.92	a
Sun & Blower	24.34	a	Sun & Blower	19.03	a b	Sun & Blower	13.2	a	Sun & Blower	12.12	b	Sun & Blower	16.1	b
Blower	25.21	a	Blower	20.18	b	Blower	14.92	b	Blower	13.93	c	Blower	17.57	c
Sun	97.15	b	Sun	145.42	c	Sun	94.33	c	Sun	76.58	d	Sun	127.23	d
Win	147.8	c	Win	162.22	d	Win	106.93	d	Win	86.5	e	Win	132.62	e

Table 11. DMRT of Water Content Test on Simplisia Bark and Fruit

S. polyanthum					
Bark			**Fruit**		
Drying Method	Water Content	Notasi DMRT	Drying Method	Water Content	Notasi DMRT
Oven	25.43	a	Oven	19.93	a
Sun & Blower	26.48	a b	Sun & Blower	20.97	a
Blower	28.22	b	Blower	22.3	a
Sun	129.62	c	Sun	116.38	b
Win	168.87	d	Win	130.35	c

Drying time is not as much as different with the amount of water content. The organ that experience the fastest time of drying respectively is flower, root, leaf, fruit and bark. Drying time is also influenced by the method in drying. In sequence, the effective method which is used is oven, sun & blower, blower, sun and win. A drying method used by oven and sun & blower is not different significantly, but it will be different when it uses blower, sun and win.

On the organs of flower plant, *I. paladusa and S. polyanthum*respectively have more rapidly process in drying. Moreover, on the organs of root plant, the plant which has a rapidly process in drying are *A.fistulosum C.variegatum,* and *S.polyanthum* by sequence, *A. fistulosum, C. variegatum, H. littoralis, C. fructicosa* and *S. polyanthum* on the organs of leaf plant, *S. polyanthum* on the organs of fruit with the fourth place in drying time, and the last place (the longest time of drying) is *S. polyanthum*on the organs of bark.

The time of drying successively influenced by the part of plants organ have been explained that the flower is a part of plants organ which has more rapidly time in drying. Flower is one of the plants parts which have more than 70% water content, soft and easily broken. After passing a drying process or standing it for little long, so the flower pigment will change due to the oxidation reaction. It is easy to be browning because of theenzymatic process. Flower drying will be better done by withering and do not expose directly to the sunlight to obtain a perfect dry flower (Balai Besar Penelitian dan Pengembangan Pascapanen Pertanian, 2010). The next plant organ is root. A root which is used as simplicia material needs to be washed up from all of clay inherent. The characteristic of root aresolid and less brittle. It is due to the water content reach more than 60%. Directly drying process to the sunlight takes a little longer than a mechanical dryer. If the weather is enabled, it is usually make the materials will likely damage because of fungus. Therefore, it will be better if the material is dried by using mechanical dryer. (Balai Besar Penelitian dan Pengembangan Pascapanen Pertanian, 2010).

The next is leaf. A young leaf that is used usually dried slowly due to the water content is higher. Therefore, it may caused an enzymatic reaction which will continue quickly. In addition, a young leaf has a very soft tissue so that it is easy to shatter and damage. Generally, the old leaf will be given a certain treatment in withering process continued to slowly drying process to obtain an interesting color. Drying leaf as simplicia should not have a direct exposed to the sunlight because it will change the chlorophyll compounds of leaf, therefore the product will become less brownish. In using mechanic dryer, the temperature must be controlled in order to make it stable and does not exceed up to 40º C, because in those stable temperature the chlorophyll compounds will not be damaged (Balai Besar Penelitian dan Pengembangan Pascapanen Pertanian, 2010).

The next part of plants is fruit. Water content in fruit is quite higher between 70%-80%. A drying can be done gradually or directly dried by using mats with the evenly thickness and not too thick, using a mechanical dryer or oven in the temperature of 40-50º C. During drying process, it will be good to always be done the reversal in getting a good result of the product (Balai Besar Penelitian dan Pengembangan Pascapanen Pertanian, 2010). The part of plants which has the longest time in drying is bark. A bark has a similar characteristic that is rigid, solid and tough due to a higher content of cellulose fibers, hemicellulose, and lignin (

Balai Besar Penelitian dan Pengembangan Pascapanen Pertanian, 2010). Bark is dried in the sunlight directly or with oven at the temperature of 50º C with the heap thickness 3-4 cm. The process of drying can be done until a bark is completely dry. It marked from the harshness of the wood. The more solid of a wood, it is easier to be broken; the color is cardinal (light red) up to russet (Guidelines for handling post-harvest technology medical plants, 2011).

The Relation between Drying Time of the Water Content and Drying Method

Simplicia is one of the plants which are used as a medicine that never experience any treatment but drying. Simplicia obtained from home-yard and fields, planted or non-planted. The chemicals in simplicia contains of volatile oil, starch (Davy, 1996), an active substance (tannins, alkaloid, saponins, terpenoids, etc). Based on hypothesis testing of water content which is resulted from F count of 68,438 with *p-value* = 0,000. *p-value*< α (α= 0,05) means, there is an influence between drying method toward the result of water content. The differences between drying method toward the water content needs to be done by DMRT testing in the result of Win method produces the greatest number of water content. Water content which is produced in Win method is not different with the Sun method. For both methods significantly produce more water content than the other three methods. Besides, Oven-drying method significantly produces less than the other four methods. Based on the average of water content from the treatment of each types of leaf, it can be seen that *S. polyanthum* produces the greatest number of water content. Whereas, *A. fistulosum*produces a little number of water content. Yet, although there is the difference in the water content for each treatment distinction of leaf, the differences of the water content is not significantly different each other.

Based on the hypothesis, the time of drying resulted from F count as 5,686 with *p-value* = 0,000. *p-value*< α (α = 0.05) means there is an influence in drying method toward the time of drying. The difference of drying method toward the time of drying needs to be done by DMRT testing, resulting that the Win method is the longest time of drying. The time of drying by Win method is significantly longer than the other four methods. In the other hand, oven-drying method needs the fastest time compared with the other four methods. The interaction of Win method on *C. fructicosl*eaf takes more times in drying and it takes a long time from the other interactions. Besides, the oven-drying method on *A. fistulosun* leaf has the fastest treatment compared to other treatment interactions.

Drying is a method that is used to take out the water in the food ingredients by using heat energy. The use of oven drying for a long time will reduce the water content on its ingredient, but it will cause the water content decrease more slowly (Fadilah and friends, 2010). A drying process with the sun is difficult to control. The combination of drying from the sun and blower result the best quality of simplicia rather than dry it by aerating, a drying by the sun or blower only is more quickly. The use of drying method by aerating simplicia still produces higher water content and if it stored in certain period of time, it will cause a damage in physical as well as chemical (Manoi, 2006).

The water content of simplicia is better less than 10.00%. When the water content is more than 10.00%, it will lead the occurrence of enzymatic process and damage by microbes (Manoi, 2006). The longer drying takes place, hence the evaporation of water in the material/ ingredient happen faster and the water content will on the wane (Martunis, 2002). The time of drying will impacts on the number of water content. The longer time of drying, the more water molecule is evaporated (Fitrian, 2013, Aprilia and friends, 2014). A high and low of an ingredient is determined by bound water and free water which is contained ingredients. Bound water requires a higher temperature in evaporation rather than free water which is required lower temperature to let the evaporation (Fitriani, 2013).

CONCLUSION

The whole method of drying is qualified in the water content of simplicia between 6% - 10%. A method of drying is influential significantly towards the water content of simplicia and drying time on the kinds of plants. The longer time of drying hence the water content will

lower on the plant organ that is used as simplicia. Sequentially, the more effective drying method is using combination method sun and blower, blower, oven, sun and wind.

REFERENCES

Aprilia,S.K.Y., Simamora., Suhaedi, I., & Yusraini, E. 2014. Pengaruh Lama Pengeringan Kentang Dan Perbandingan Tepung Terigu Dan Tepung Kentang Terhadap Mutu Cookies Kentang. *Ilmu dan Teknologi Pangan*, 2(3): 1-10.

Balai Besar Penelitian dan Pengembangan Pascapanen Pertanian. 2010.

BPOM RI, 2010a, *Acuan Sediaan Herbal Volume V Edisi 1*. Direktorat Standardisasi Obat Tradisional, Kosmetik dan Produk Komplemen. Jakarta

BPOM, 2010b, Monografi Ekstrak Tumbuhan Indonesia, Direktorat Standardisasi Obat Tradisional, Kosmetik dan Produk Komplemen BPOM RI, Jakarta.

Cahyono, B., Huda, M.D.K., & Limantara, L. 2011. Pengaruh Proses Pengeringan Rimpang Temulawak (Curcuma xanthorriza ROXB) Terhadap Kandungan Dan Komposisi Kurkuminoid. *Reaktor*, 13(3): 165-171

Davy, H. 1996. Elements of Agricultural Chemistry 5th Edition. London: Green and Longman.

Departemen Kesehatan RI. 1990. *Cara Pembuatan Simplisia*. Departemen Kesehatan Republik Indonesia: Jakarta.

Departemen Kesehatan RI. 1995. *Farmakope Indonesia edisi IV*. Departemen Direktorat Jenderal Pengewasan Obat dan Makanan: Jakarta.Hal 7, 1221-1223.

Departemen Kesehatan RI. 1995. *Materia Medika Indonesia Jilid IV*. Direktorat Jenderal Pengawasan Obat dan Makanan: Jakarta. Hal: 182-185.

Departemen Kesehatan RI. 2000. *Parameter Standar Umum Ekstrak Tumbuhan Obat.*Direktorat Jenderal Pengawasan Obat dan Makanan: Jakarta.

Depkes, 2008, Farmakope Herbal Indonesia, Departemen Kesehatan Republik Indonesia, Jakarta.

Direktorat Bina Perbenihan Tanaman Hutan. 2012. Informasi Singkat Benih, No. 120.

Fadilah, Distantina, S., Pratiwi, D. B., Muliapakarti, R. Danarto, Y. C., & Fahrurrozi, M. 2010. Pengaruh Metode Pengeringan Terhadap Kecepatan Pengeringan Dan Kualitas Karagenan Dari Rumput Laut Eucheuma cottonii. Makalah di Seminarkan pada Seminar Rekayasa Kimia dan Proses, 4-5 Agustus 2010.

Fitriani, S., Ali, A., Widiastuti. 2013. Pengaruh Suhu dan Lama Pengeringan Terhadap Mutu Manisan Kering Jahe (Zingiber Officinale Rosc.) dan Kandungan Antioksidannya. *Sagu*, 12(2): 1-8

Gunawan, A., Daniel., & Purba, R. 2013. Uji Aktivitas Senyawa Antioksidan Dari Daun Andong (Cordyline Frutycosa (L.) A. Chev.) dengan Menggunakan Metode DPPH. *Prosiding Seminar Nasional Kimia*, Universitas Mulawarman

Harvey David. 2000. *Modern Analytical Chemistry*. New York: McGraw-Hill Comp.

Kementerian Pertanian Direktorat Jendral Hortikultura Direktorat Budidaya dan Pascapanen Sayuran dan Tanaman Obat. 2011. Pedoman Teknologi Penanganan Pascapanen Tanaman Obat.

Manoi, F. 2006. Pengaruh Cara Pengeringan Terhadap Mutu Simplisia Sambiloto. *Bul. Liitro*, 17(1): 1-5

Martunis. 2002. Pengaruh Suhu Dan Lama Pengeringan Terhadap Kuantitas Dan Kualitas Pati Kentang Varietas Granola. *Jurnal Teknologi dan Industri Pertanian Indonesia*, 4(3): 26-30

Pramono, 2006.Penanganan Pasca Panen dan Pengaruhnya Terhadap Efek Terapi Obat Alami. Prosiding Seminar Nasional Tumbuhan Obat Indonesia XXVIII, Bogor, 15-18 September 2005. Hal 1-6.

Saifudin, A., Rahayu, V, dan Teruna, H.Y. 2011. *Standardisasi Bahan Obat Alam*. Graha Ilmu: Yogyakarta.

Seabaugh, K. and Smith, M. 1996. *USP Open Conference on Botanicals for Medical and Dietary Uses*: Standars and Information Issues. The United States Pharmacopeial Convention, Inc, Rockvlle, Maryland.

Skoog Douglas *et al*. 2004.*Fundamental of Analytical Chemistry*. Singapura: Thomson Learning.

Sumpena, U. Tanpa tahun. *Budidaya Bawang Daun*. Badan Penelitian dan Pengembangan Pertanian, Kementerian Pertanian

Winangsih, Prihastanti, E., & Parman, S. 2013. Pengaruh Metode Pengeringan Terhadap Kualitas Simplisia Lempuyang Wangi (Zingiber aromaticum L.). *Buletin Anatomi dan Fisiologi*, 21(1): 19-25.

The influences of Determination Choosing of the Department in State Universities and Lecturers' Teaching Style to Students' Learning Motivation

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Abstract: This study aimed to identify the influences of determination choosing of the department in state universities and the lecturers' teaching style to the student's learning motivation. Subjects were obtained by non-random consisting of the students for 1st and 3rd semester at state universities in Indonesia. The theory of self-determination for the determination of the departments, Teaching Style Inventory Anthony F. Grasha to the lecturers' teaching style and Harter Scale to measure student motivation and Multiple linear regression analysis is used. The study was conducted using a questionnaire distributed to 556 students. The results show the number of significance at p = 0.000. which means there is a very significant influence determination to choose the departments and lecturers' teaching style, the learning motivation of students in state universities, with the effective contribution of 21.2%.

Keywords: choosing the departments, lecturers' teaching style, students' learning motivation

Generally when the students learn, they need feedback on the consequences of the institution or teacher who can push to modify their behavior. Motivation can determine how sensitive the students receive feedback, especially for academic achievement [1]. While psychological factors, health and social services do not contribute to academic achievement [2]. Faculty and administrators play an important role in motivating student learning by providing support and advance student academic achievement [2] to plan and pursue academic atmosphere that is supportive, conducive and fun for learning and teaching [3].

Almost 75% of students have intrinsic motivation for academic achievement based on the contributions of demographic and personal characteristics of students. And psychosocial factors (life satisfaction, optimism, perceived social support from family, work status, and age) were significant associations for academic achievement motivation, but then it turns out not significant predictors [3] .

Students looking for educational programs at the university that will prepare them as a success professional that will give them an advantage in the job [2], which will also give them the knowledge of education is typical that they will remain in the minds them all the time. Thus, selecting from the beginning of the university is one of the decisions of life's most important among prospective students [4].

Intrinsic motivation and extrinsic motivation tends to be positive if it is associated with student satisfaction and sense of belonging to the university. Motivation choose the departments can also be caused by economic factors, demographics or a mixture of both [5], racial or ethnic background also helped influence the decision of choosing students' academic departments [6].

In addition to determining choose department at the university that can influence students' motivation to learn, it is a style of lecturers' teaching had a huge impact on student motivation and achievement in the subject. Some students have a pay attention in classes just because of the influence of teaching styles, and conversely some lecturers failed to develop the atmosphere

of learning and student motivation even decreased. Research on the style of lecturers' teaching shows that the teaching style "Delegator" with students at the center and teaching styles "Expert" and "Role Models," in which the lecturer as a center, can affect student learning motivation [7]. Research to identify the relationship between lecturers teaching style using Grasha and academic engagement of students at the university shows that there is a significant but moderate relationship between lecturers teaching style with students' academic engagement. Most lecturers use personal model, followed by style experts, while the style delegator got the lowest score [7].

Based on previous research reference, research on The influences of Determination Choosing of The Department In State Universities and Lecturers' Teaching Style to Students' Learning Motivation has done.

METHODE

The research was using quantitative approach. Linear regression analysis was being used to find out the influence of determining choose the departments and Lecturer's Teaching Style to learning motivation of students in state universities.

Research variable

This study uses three (3) variables, namely two independent variables and the dependent variable. The independent variable (X1), namely the determination of choosing the departements, include no motivation, extrinsic motivation and intrinsic motivation in the decision of choosing departemens. The independent variable (X2), the Teaching Style that includes five aspects, namely Expert, Formal Authority, Personal Model, Facilitator, and Delegation. The dependent variable (Y), includes: a) Intrinsic motivation consists of three aspects, namely like a challenging task, curiosity, and independent mastery. b) Extrinsic motivation consists of three aspects: the job is easy, lecturers is fun, and dependence on the lecturer.

The subject

The subject of research has 556 students of 1st and 3 rd semesters, ages 18-21 years, with details of 305 students at the 1st semester and 251 students at the 3 rd semester. Who's studying in one of the state universities in Jakarta, Indonesia. The sampling technique is non-random sampling, with systematic sampling method.

The Method of Data Collection

There are three kinds of data is to be collected in this study. These include research data of choosing departments based on self-determination theory, lecturers teaching style data based of Teaching Style Inventory [8,9] and data using the students' learning motivation A Scale Of Intrinsic Versus Ekstrinsic Orientation In The Classroom [10,11] to measure student motivation. By filing a statement of 30 regarding the motivation to learn, 40 statements regarding teaching styles, and 28 statements regarding the determination of the departments. This questionnaire was distributed to respondents and statements submitted to each respondent will be analyzed the results quantitatively. Data were analyzed using linear regression.

RESULTS AND DISCUSSION

Result

In this descriptive analysis to know dissemination of data based on intrinsic motivation and extrinsic motivation of students in learning.

Table 1. The Category of Student Motivation in Learning

Category	Frequency	Percentage (%)
Extrinsic Motivation	267	48
Intrinsic Motivation	289	52
Total	556	100

Table 2. The Categories of Motivation in The Decision to Choose a Department

Category	Frequency	Persentage (%)
No Motivation for Choosing Departments	189	34
Extrinsic motivation for Choosing Departments	234	42
Intrinsic Motivation for Choosing Departments	133	24
Total	556	100

Table 2 shows the determination choosing of departments by categories for students: (1) there is no motivation in choosing departments (34%), (2) students with extrinsic motivation in choosing departments (42%), and (3) student with intrinsic motivation in choosing departments (24%). This means that students when making the determination in choosing departments largely on the intrinsic motivation, extrinsic 42% and even 34% no motivation in choosing departments. Only 24% are motivated intrinsically determination departmens. As for the lecturers teaching style has the following categories:

Table 3. Categories of Lecturers' Teaching Style

Descriptive Statistics					
	N	Frekuensi	Persentase (%)	Mean	Std. Deviation
Expert	556	78	14	12.15	1.521
Formal_Authority	556	150	27	23.17	2.801
Personal_Model	556	100	18	14.96	1.822
Facilitator	556	133	24	20.98	2.389
Delegator	556	95	17	14.94	1.542
Valid N (listwise)	556				

Table 3 shows that students are very motivated by the style of teaching faculty formal authority (M = 23:17, SD 2801), followed by a teaching style facilitator (M = 20.98, SD 2389), and the teaching style expert (M = 12:15, SD 1521) is the most little to motivate students to study at state university. While teaching style delegator (M = 14.94, SD 1542) and a personal model teaching style (M = 14.96, SD 1822) is smaller and in a balanced way to motivate.

Table 4 shows the F value is 74.254 with p = 0.000, then the determination of choosing majors and professors teaching styles simultaneously, can predict learning motivation of students in state universities.

Table 4. Multiple Regression

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1368.235	2	684.117	74.254	.000[b]
	Residual	5094.902	553	9.213		
	Total	6463.137	555			
a. Dependent Variable: Learning Motivation						
b. Predictors: (Constant), Teaching styles, Determination Choosing of the Departments						

Table 5 shows the t-test to determine whether the determination to choose the departments and teaching styles influence significantly for the motivation to study at state universities.

Table 5. Partial Regression Coefficients

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	23.238	1.474		15.763	.000
	the determination to choose the departments	.071	.013	.211	5.301	.000
	Teaching Styles	.145	.017	.346	8.672	.000
a. Dependent Variable: Learning Motivation						

In table 5 shows that the t value variable determining the departments (X1) = 5,301, p = 0.000. That is the determination of departments influence significantly on the motivation to study in state universities, and a donation from the determination of the departments of 7.1% in improving the learning motivation of students in state universities. And teaching style variable (X2) = 5,301, p = 0.000, as well as the lecturers' teaching style have a significant effect on motivation to learn at state universities. Donations for lecturers' teaching styles in the 14.5% increase learning motivation of students in state universities.

In Table 6 shows the effective contribution of determination to choose departments and lecturers' teaching styles to students' learning motivation of in state universities.

Table 6. The Coefficient of Determination

Model Summary[b]									
				Std. Error	Change Statistics				
Model	R	R Square	Adjusted R Square	of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.460[a]	.212	.209	3.035	.212	74.254	2	553	.000
a. Predictors: (Constant), Teaching styles, Determination Choosing of the Departments									
b. Dependent Variable: Learning Motivation									

Discuss

The hypothesis in the study, which reads: (1) There is a significant effect between determination in choosing departments and lecturers' teaching style on students' learning motivation in a state university, and then, (2) There is a significant effect between determination in choosing departments on students' learning motivation in state universities, and (3) There is

a significant effect between lecturers' teaching style to students' learning motivation in state universities, three hypotheses are acceptable effect, that is very significant.

This study produced very interesting findings. The effective contribution of the two variables (ie, the determination to choose a departments in state universities and lecturers' teaching style on students' learning motivation) amounted to 21.2% and the remaining 78.8% is influenced by other variables, as shown in Table 6. There are 3 categories of students when they do determining choose departments, namely: (1) there is no motivation in choosing departments with value is 34%, (2) students with extrinsic motivation in choosing departments with value is 42%, and (3) students with intrinsic motivation in choosing departments with value is 24%, students select departments are not based on his own choice. Another point of this research is the presence of students' learning motivation in state universities more influenced by intrinsic motivation (52%) rather than extrinsic motivation (48%). Motivation to learn students supported by their role of teaching style of the lecturer as shown in Table 3, namely formal models authority (27%), facilitators (24%), Personal (18%), a delegator (17%) and expert (14%) ,

Formal authority teaching style is a style of teaching that is centered on lecturers, where the professors take full responsibility in the provision and control students. While the facilitator teaching style is the style of a student-centered teaching, where the professors act as facilitators and students are responsible for achieving the learning objectives using active learning, cooperation among students in problem solving. Both teaching style really help to improve students' learning motivation. Expert teaching style (M = 12:15, SD 1521) are the least motivating students in learning, where certain knowledge and skills of a college professor takes only a little. Lecturer is expected to motivate students to improve their competence through knowledge sharing. While teaching style delegator (M = 14.94, SD 1542) and a personal model teaching style (M = 14.96, SD 1822) is smaller and in a balanced way to motivate. Delegator style using this style of student-centered teaching, lecturers will deploy capabilities of students so that students can move independently. For the style of personal model, lecturer uses himself as an example to be duplicated by the students, such as how they think and act. They tend to steer and deliver a student to do observation and imitation of the method shown thereafter, or in other words 'teaching by example'.

Conclusion

Determination choose departments and lecturers teaching style provides a very significant influence on motivation to learn students at state universities. Although initially, when students choose a department in state universities more due to external factors and lack of motivation. It turned out that the majority of students' learning motivation is strongly influenced by intrinsic motivation. This change occurred because of the role of lecturers teaching style. Students are motivated by formal authority teaching styles and teaching styles facilitator.

Reference

1. Pasque, S.D., Tricomi, E., Effects of intrinsic motivation on feedback processing during learning, Department of Psychology, Rutgers University, 101 Warren Street, Newark, NJ 07102, USA., NeuroImage 119 ; , 2015, 175–186.
2. Ayman M Hamdan-Mansoura et.al., Psychosocial Correlates of Motivation for Academic Accomplishment among University Students, Procedia - Social and Behavioral Sciences 159: 2014, 32 – 36,

3. Abdull Sukor Shaaria et.al., The Relationship between Lecturers' Teaching Style and Students' Academic Engagement, Procedia - Social and Behavioral Sciences 118: 2014, 10 – 20, p.11.
4. Poturak, M. Private Universities Service Quality and Students Satisfaction, globejournal, ISSN: 2302-4593, Vol. 3 (2), 2014, 33-49.
5. Soria, KM, & Stebleton, M., Major Decisions: Motivations for Selecting a Major, Satisfaction, and Belonging. .NACADA Journal Volume 33(2). doi:10.12930/NACADA-13-018, 2013
6. Keshishian, F., et al., Motivating Factors Influencing College Students' Choice of Academic Major. American Journal of Pharmaceutical Education. 2017. Am J Pharm Educ.; 74(3): 46. Apr 12, 2010.
7. Sheikh, A & Mahmood, N. 2014. Effect of Different Teaching Styles on Students' Motivation Towards English Languange Learning at Secondary Level, Sci.Int(Lahore),26(2), 825-830, 2014.
8. Grasha, A.F. 1994. A Matters of Style : the teachers as a Expert, Formal Authority, Personal Model, Fasilitator and Delegor. College Teaching 48 (1) : 21 31
9. Grasha, Personal Model Style See Also Teaching Style Defined And Advantages And Disadvantages,154
10. Harter, S., A Scale of intrinsic versus extrinsic orientation in the classroom (Available from Susan Harter, Departmen of Psychology, University of Denver, CO 80208), 1980.
11. Harter, S. A new self-report scale of intrinsic versus extrinsic orientation in the classroom: motivational and informational components. Developemental Psychology, 17, 300-312, 1981.

Developing Peer-Mediated Social Skills Intervention Model for Children with Special Needs

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Abstract: This research aims to develop a model of social skills training for children with special needs in inclusive elementary schools. Training model involves the normal child as a mediator training is peer-mediated social skills intervention (PMSSI), which developed into seven-step development. Results of development are: (1) the model PMSSI appropriate to meet the needs of children with special needs and normal children's social skills training; (2) The components of the model of the description measures of social skills training, organized, hierarchical sequence, and clear; (3) Model PMSSI also useful for classroom teachers and the special teacher in inclusive elementary schools; and (4) Model PMSSI efficient in terms of cost but is less efficient in terms of time. Based on the results of the development there are two suggestions: (1) the need for training of trainers on the use of models PMSSI before being applied in inclusive elementary schools, and (2) the implementation of social skills training should be done in an integrated manner in academic activities or in a group setting play.

Keywords: PMSSI model, children with special needs, inclusive elementary schools.

Good social skills are the foundation to pursue a healthy and normal life (Meadan & Monda-Amaya, 2008). Inadequate social skills will result in: (1) increasing behavior problems due to the lack of social interaction skills, (2) increasing the possibility of maladaptive behavior later in life, and (3) reduce the positive support to build a good relationship peer (Robertson, et al, 2003; Miller, et al, 2005). Children with special needs who are at risk of problematic elementary schools socially inclusive because of their failure to replicate and understand social situations around it and they are difficult to interpret social initiations undertaken by other children (Klavina & Block, 2008).

Harris, et al (2009) suggest that children with special needs do not experience a complete failure in social interaction, the social skills must be improved. At first, social skills training conducted by adults on children with special needs (Rogers, 2000), but that approach has the disadvantage of their disregard for the child's social interaction in the natural environment and social skills taught are the desire of adults not take place as the children children playing with their peers (Rogers, 2000). The strategy is transformed into a strategy that involves peer (normal child) to teach social skills to children with special needs. Peers as a model for children and can strengthen the social behavior (Bandura, 1977). Harris, et al (2009) suggest that children with special needs do not experience a complete failure in social interaction, the social skills must be improved. At first, social skills training conducted by adults on children with special needs (Rogers, 2000), but that approach has the disadvantage of their disregard for the child's social interaction in the natural environment and social skills taught are the desire of adults not take place as the children children playing with their peers (Rogers, 2000). The strategy is transformed into a strategy that involves peer (normal child) to teach social skills to children with special needs. Social skills peers as a model for children and can strengthen the social behavior (Bandura, 1977).

During this time, social skills are considered as a skill that can be mastered by children themselves. The assumption is not correct, because those skills should be practiced based on the circumstances of the child. In children with special needs who are in the inclusive school, social skills are skills that determines their success as they interact directly with normal friends. Be regarded as decisive, because children with special needs are socially accepted will get a high level of acceptance from peers (Marlina, 2008). Even if no social skills training, are not conducted in a structured and performed on certain types of special needs children. Harris et al (2009) for example, social skills training to children with special needs kindergarten age. Webb et al (2004) examined the social skills in children with autism and Vaughn et al (2001) on children's learning disabilities. Several studies were conducted with the collaboration techniques with children with special needs.

One way to teach social skills is the peer-mediated intervention (PMI), the normal peer teaching social skills to children with special needs (Harris et al, 2009). PMI consists of three types, namely, peer proximity, peer prompting and reinforcement, and peer social initiation. Peer proximity do with the closeness between children with learning disabilities peer mediator. Peer prompting and reinforcement is done by teaching how to start a social interaction (Harris et al, 2009). Based on the concept of Harris et al, (2009), the researchers developed a model of social skills training for children with special needs called peer-mediated social skills intervention (PMSSI).

If seen the conditions in Indonesia and throughout the researcher knowledge, no studies have attempted to develop a model of social skills training for children with special needs, particularly using PMSSI. PMSSI a social skills training strategy that uses peer (normal children), classroom teachers and special teachers are integrated in a training setting (Clikeman, 2007; Harris, et al, 2009). Departing from these problems, the authors propose the formulation of the problem:

1. How to develop a model appropriate social skills training for children with special needs in inclusive elementary schools?
2. How to develop social skills training model is useful when the model is applied in the inclusive elementary schools?

METHOD

Development Method

Model Development PMSSI using methods of research and development (research and development), referring to the Borg and Gall (1989). The development of research procedures are: (1) assess the nature of children with special needs, inclusive schools and social skills; (2) assess the learning models; (3) selecting a learning model that is adapted to be adopted as a model PMSSI; (4) developed the first form PMSSI models for children with special needs, which is done by modifying the model that has been chosen; (5) explores opinion of regular teachers and special teacher about the accuracy, feasibility, appropriateness and usefulness of the first form PMSSI models that have been developed; (6) test the acceptability of the first form PMSSI models through expert testing. Thus social skills training model developed theoretically tested acceptability; and (7) the results of activity (number 4) and (number 5) are used as the basis for revising the first form PMSSI that have been developed.

The First Phase Development

The first phase development procedure includes the following activities: (1) determine whether the model PMSSI is a training model, using the criteria of Harris, et al (2009); (2) determine the suitability of the model components PMSSI when used as a model of social skills training in inclusive elementary schools; (3) determine whether PMSSI model components need to be modified when used in inclusive elementary schools; (4) modify the Model PMSSI become a model of social skills training for children with special needs; (5) develop a Social Skills Training Manual for Classroom Teachers and Special Teachers then develop a Social Skills Training Material Books; and (6) develop a draft example of social skills training for children with special needs.

The Second Phase Development

Development of the second phase is the evaluation of the prototype model of social skills training, using Focus Group Discussion and Delphi Technique. FGD conducted to explore the opinion of a special teacher and classroom teacher about PMSSI Model developed. Delphi technique conducted to collect expert opinion and agreement of the outstanding education and inclusive education experts on the prototype Model PMSSI.

The Subject of Development

Subject development consists of two groups: (1) group of classroom teachers and special teacher (who was involved in FGD) were selected purposively. FGD attended by 25 participants (20 classroom teachers and 5 special teacher). (2) a group of experts who examine the acceptability of the prototype Model PMSSI which consists of five outstanding educational experts and 2 inclusive education experts.

Development Instrument

Data were collected by questionnaire to gather expert opinions on the acceptability of models that include usability, accuracy, and feasibility PMSSI models. Usability, referring to how much PMSSI models developed to benefit the classroom teacher, guidance counselor specialized, and peer mediators in inclusive elementary schools. Feasibility, refers to how real when PMSSI models implemented in inclusive elementary schools. Accuracy, refers to how the right model PMSSI meet the needs of students social skills training. Contents validity of this development instrument determined by using expert judgment.

Data Analysis

Data analysis consisted of two, namely (1) the data analyzed by the technique FGD Cut-and-Paste; and (2) expert assessment data were analyzed by using percentage. To know the difference between the acceptability of the model PMSSI exceptional education experts and inclusive education experts, analyzed with the Kruskal-Wallis nonparametric statistics.

RESULT AND DISCUSSSON

The results of research are grouped in three, which is the result of the development of the model, FGD results, and the results of the expert test.

Model Development

The development phase begins with an assessment of a number of models of learning and teaching models comparing them. Based on the results of the study and comparison of teaching models, found a number of reasons which enables the model PMSSI adapted as a model of social skills training in inclusive elementary schools. *First*, PMSSI models can be used as a model social skills training pedagogical charged, because PMSSI models emphasize the importance of the use of learning objectives as a training base. *Second*, PMSSI models meet the requirements of social rehabilitation and educational function. This is indicated by PMSSI model characteristics, namely: (1) focusing on specific behaviors and ignoring the causes negative behavior; (2) focus attention on academic behavior and social behavior from the standpoint of behavioral, making it easier to take measurements directly. *Third*, the model PMSSI easily used by classroom teachers, subject teachers and special teacher. *Fourth*, the model PMSSI a prescriptive training model, whose components consist of a set of measures of systematic training, so easily implemented by classroom teachers and special teachers.

PMSSI models adapted by modifying components. Modifications were done by adding components: (1) identification and assessment of children with special needs who have problems of social skills; and (2) identification of peer mediator who will mediate learning social skills. The component is added as a first step in the model of social skills training. Social skills training measures are developed based on the model PMSSI, composed of fifteen steps, namely: (1) identify children with special needs who have problems of social behavior; (2) identify the peer mediator; (3) pair of children targeted by the peer mediator; (4) identify the behavior of social skills of children with special needs (children target); (5) to train classroom teachers, special teacher and peer mediator; (6) to formulate the goal of social skills training; (7) selecting and applying measurement techniques of social skills; (8) collecting baseline data the target child's social skills; (9) evaluate the performance targets based on the child's social skills of baseline data; (10) apply intervention techniques; (11) to collect data during the intervention period; (12) evaluates the performance of social skills during the intervention period; (13) implement a maintenance techniques behavioral social skills; (14) collecting data during the maintenance period of social skills; and (15) to evaluate the performance over a period of social skills training. Component model of social skills training is a step-by-step social skills training for children with special needs in inclusive elementary schools.

Results of Focus Group Discussion

Focus Group Discussion begins by discussing about the usefulness PMSSI Model. There are two poles of opinion with regard to the PMSSI Model developed. On the one hand, a number of research subjects assume that social skills training model, which has been described in the form of guidebooks, useful for the implementation of the class teacher assignments. On the other hand, there are participants who seem to doubt the usefulness of social skills training model for teacher specialized counselors. With regard to the ability to use PMSSI Model in school, the teachers want their classroom training before implementing models of social skills training as designed in the guidebooks. On the other hand there is a special tutor who felt unable to carry out social skills training sebagimana designed in the guidebooks. In general, the participants found that social skills training objectives written in the manual is clear and understandable.

While the clarity of the component measures of social skills training model, generally classroom teachers state that the component is sufficiently detailed and understandable. Instead a number of special teacher had difficulty in understanding the description of the application

procedure PMSSI. Regarding the feasibility aspect of social skills training in schools, a participant may doubt the possibility of implementation of such training because of the unavailability of special hours for teachers. In the following discussion, the school obtained a description that no one has time for behavior modification activities of children with special needs, but there are also schools that do not.

With regard to the amount of time to carry out social skills training, nearly all classroom teachers contend that the time required to carry out social skills training has not been effective. Regarding the issue of the cost required to implement social skills training, there are two different opinions. Some participants stated that they would have difficulty if you had to double the guidebook for peer mediators and social skills training materials, some states there is no problem because the principal costs to provide funds for behavior modification activity in school children with special needs. In the focus group discussions, the participants were asked to provide suggestions to improve the Social Skills Training Manual for Teachers Classroom and Special Teachers and Social Skills Training Materials.

Test Results Experts

Here's a description of the results of the expert test analysis accuracy, feasibility and usefulness PMSSI models.

a. Accuracy PMSSI Model

The indicators used to describe the accuracy of the model social skills training is the appropriateness of social skills training procedures when applied by peer mediators to children with special needs.

Table 1. Consensus Degrees PMSSI Model Accuracy

the Questions	Consensus Degrees
The accuracy of measures of social skills training when applied to a peer mediator	58,4%
The accuracy of measures of social skills training when applied to children with special needs	75%

Different test results an expert opinion on the accuracy of the model of social skills training, performed with techniques Kruskal-Wallis nonparametric statistics, showing that the Chi-Square = 3.6070; df= 1; and α obtained at 0.0575. This means that there is no difference of opinion between experts outstanding education and inclusive education experts about the accuracy of the Model PMSSI.

b. Feasibility Model PMSSI

Indicators used to demonstrate the feasibility of social skills training model is a model of practicality and efficiency of the model.

Table 2. The Degree of Consensus Feasibility Model PMSSI

the Questions	Consensus Degrees
Practicality measures designed social skills training in PMSSI manual	71,1%
The amount of power needed to carry out the social skills training as designed in the PMSSI manual	70,5%
The time required to carry out the social skills training as designed in the PMSSI manual	83,3%
How big is the impact of the development of this PMSSI model to choose social skills training approach that "cost-beneficial"?	56%

The results of different test analysis showed that there was no difference in expert opinion on the feasibility of the model of social skills training. This is evident from the results of calculations performed using the Kruskal-Wallis following: Chi-Square = 3.6070; df= 1, and α = 0.4029.

c. Usability Model PMSSI

The usefulness of the model PMSSI indicated by the following indicators: the requirement for users to be able to implement the model, the scope of the model, the model kebernilaian interpretation, the clarity of the components of the model, and the impact of the use of models.

Table 3. The Degree of Consensus User Requirements Model PMSSI

the Questions	Consensus Degrees
Whether or not a special education classroom teachers in the field of social skills training	46,6%
Whether or not special teacher specialized in the field of social skills training	50%
The need for classroom teachers have the technical competence in the field of social skills training	61,3%
Whether or not to have the special teacher specialized technical competence in the field of social skills training	58,3%
Whether or not to have the classroom teacher substantive knowledge in the field of social skills training	62,3%
Whether or not to have the special teacher substantive knowledge in the field of social skills training	58,3%
Whether or not the classroom teacher has interpersonal relationship skills	50%
Whether or not to have the special teacher interpersonal relationship skills	50%

Furthermore, the results of data analysis with respect to the interpretation kebernilaian models showed only 25% of experts who state that social skills training model developed in this study useful for classroom teachers, while 75% of experts stated very useful for classroom teachers.

Table 4. The Degree of Consensus Relevance Model PMSSI

the Questions	Consensus Degrees
Model PMSSI relevance when applied to normal children	75%
Model PMSSI relevance when applied to children with special needs	58,3%

Table 5. The Degree of Consensus Important Benefits and Value Model PMSSI

the Questions	Consensus Degrees
Model PMSSI benefits for classroom teachers	75%
Benefits Model PMSSI for special teachers	58,3%
Model PMSSI important value for classroom teachers	58,3%
Model PMSSI important values for special teachers	75%

Table 6. Degree of Consensus the Clarity of Model PMSSI Components

the Questions	Consensus Degrees
The clarity of description of steps to identify children with special needs who have problematic social skills	58,3%
The clarity of description identifying step of peer mediator	63,3%

The clarity of description of the steps to pair the child target with peer mediator	70%
The clarity of description of steps to identify the target child behavioral social skills	66,6%
The clarity of description of steps to formulate the goal of social skills training	50%
The clarity of description of the steps to select and apply the measurement technique social skills	55,5%
The clarity of description of steps to collect baseline data the target child's social skills	54,6%
The clarity of description of measures to evaluate the performance of social behavior based on baseline data	50%
The clarity of description of the steps to apply intervention techniques	41,6%
The clarity of description of steps to collect data during the intervention period	66,6%
The clarity of description of measures to evaluate the performance of social behavior during the intervention period	66,6%
The clarity of description of the step of applying the techniques of maintenance of social behavior	58,3%
The clarity of description of the steps to collect data during the maintenance period of social behavior	58,3%
The clarity of description of measures to evaluate the performance of students on the behavior of the maintenance period	50%

Table 7 Degree of Consensus General and Special Goals of Social Skills Training in Social Skills Training Material Books

the Questions	Consensus Degrees
Material 1 on Listening Skills	66,6%
Material 2 on Asking for Help Skills	58,3%
Material 3 on Saying Thank You Skills	58,3%
Material 4 on Following the Orders Skills	41,6%
Material 5 on Discussion Skills	58,3%
Material 6 on Helping Friends Skills	39,6%
Material 7 on Asking Questions Skills	36,75%
Material 8 on Making Correction Ownself Skills	31,6%

The result of calculation to see dissent exceptional educational experts and education experts about the usefulness of social skills training model shows that Chi-Square values obtained at 0.9263; df = 1; and α of 0.3358. This shows there is no difference of opinion between expert outstanding education and education experts about the usefulness of social skills training model.

In general, the findings of this study indicate that: (1) the PMSSI model appropriate to meet the needs of special needs children and normal children social skills training; (2) the components of the PMSSI model in the form of measures of social skills training, organized, hierarchical sequence, as well as a clear description of the measures training; (3) the PMSSI models are also useful for classroom teachers and special teachers in inclusive elementary schools; and (4) have developed a model PMSSI efficiency in terms of cost but is less efficient in terms of time required to carry out the social skills training.

The findings of this study are consistent with Kavale & Forness (1996) which states that one way to improve the social skills of children with learning disabilities is a peer intervention. There is an increased social skills at children with learning disabilities who peer-medited than with classroom teachers. This study are supported by Nowicki (2003) which compares social skills among the children with learning disabilities, the average students, and the underachiever students. The results show that after acquiring social skills training, children with learning disabilities obtain higher performance than the average students and the underachiever students. Teaching is mediated by peer influence on children's social skills and participation of the

children with special needs in the overall learning process in the classroom activities. This finding is supported by Robertson, et al (2003) that once applied the inclusion of peers in learning, active in asking, answering questions, and active discussion on children with special needs in inclusive schools increased significantly. Staubitz, et al (2005) confirms the application of the involvement of peers also affect the emotional maturity and behaviors. The patterns shown more controlled emotion, capable of expressing emotions appropriately and be able to understand the emotions of others. Behavior in the classroom is also more adaptive to peers and teachers after the application of the involvement of peers. Vandenberg (2001) adds the involvement of peers also can improve the behavior persist with a task (on-task behavior) in children with attention disorders.

PMSSI model development emphasizes the social skills of children with special needs in elementary schools. PMSSI the model was developed based on peer-mediated intervention (Harris, et al, 2009). At this time, children are required to interact in a neighborhood with good schools. The application of models involvement of peers who normally have done, Meadan & Monda-Amaya (2008) and Robertson, et al (2003), which proves that peer-mediated intervention is a learning strategy effectively for improving social skills in children with special needs elementary school age. Laushey and Heflin (2000) proved the effectiveness of the PMI in improving social interactions in autistic children in elementary school. Research results have shown that children with autism can say hello, greeting, and introduce him/herself after intervention by the PMI. Research Ryan, et al (2004) reported the PMI effectively reduce emotional and behavioral disorders. Research Ryan, et al (2004) in line with research findings that show a change in the behavior of children with special needs for intervention with PMI, such as babbling in class, interrupting teachers and friends, and disrupt the class discussion. Such behavior is reduced after PMI applied in learning.

These results indicate the involvement of peers can help the teacher's role. Peer mediators (normal children) give and provide opportunities for children with special needs to participate fully improve social skills (Estell, et al., 2008; Harris, et al, 2009; Kamps & Barbetta, 1994; Meadan and Monda-Amaya, 2008; Schneider & Goldstein 2008). If the peer mediator given the opportunity to play a role in the learning process, it is the responsibility of learning can be transferred from the teacher to the peer group.

Application of PMSSI by peer mediator to children with special needs a positive effect both for peer mediator and children with special needs. The research findings indicate there is an increase in the attitudes and perceptions of peer mediators for children with special needs. Peer mediators are more accepting, positive outlook, honed his leadership skills, more confidence, feeling self-esteem, and is proud to help a friend. These findings are relevant to the research Staubitz, et al (2005) that the benefits of the inclusion of peer to peer mediator, among others: (1) improve the attitude toward school and reduce the number of dropouts; (2) prevent the social barriers and create friendships; (3) provide emotional support and positive role models; (4) increase the pride of helping others; (5) improve the mastery of academic skills; (6) has a great sense of dedication to the teaching itself so that they can transfer the teaching to children with special needs effectively; (7) increases self-esteem, self-confidence; (8) increases the sense of responsibility and awareness in transferring knowledge; and (9) fosters empathy toward children with special needs.

Application of PMSSI in inclusive schools also affects the child's academic and social progress of normal, these are improving the language skills of children (Harris, et al, 2009); (2) learn to accept and appreciate individual differences among peers (Widerstrom, 2005); (3) increased confidence by being a model of positive behavior (Pretti-Frontczak & Bricker, 2004); (4) build character by giving encouragement to children with special needs when participating in learning activities in the classroom (Morrison et al, 2001); and (5) develop leadership skills

and help teachers improve the social skills of children with special needs (Sandall et al, 2005). Conceptually, this study proved that peers can be a source of learning for other students. Social skills training will work well if applied in an inclusive school is integrated into the academic curriculum. Can be done with a variety of strategies, taught in classes in a particular subject or integrated into the academic curriculum, taught individually, in small groups or big groups (Bond & Castagnera 2008; Clikeman, 2007; Shepherd, 2010; DiSalvo & Oswald, 2002 ; Fenty, et al, 2008; Delano & Snell, 2006).

Viewed from the perspective of educational psychology, PMSSI application provides the flexibility to think and to act in children because of the absence of a psychological burden with a friend. This finding is related to the concept of joyful learning. Atmosphere fun teaching and learning process can focus on learning the child's full attention so that time on task is high. From the perspective of special needs education, which was to develop the potential of individuals and develop independence. This view is understood that although children with special needs have the disorder, but its potential can still be developed through the learning process so as to achieve optimal results. The trick is to develop learning tools that accommodate learning needs of all children both in academic and field social (Wong, 2004).

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REFFERENCES

Bond, R. & Castagnera, E. 2008. Peer Supports and Inclusive Education: An Underutilized Resource. *Theory into Practice*, 45 (3): 224-229.

Clikeman, M.S. 2007. *Social Competence in Children.* Michigan: Springer Science Business Media.

DiSalvo, C.A & Oswald, D.P. 2002. Peer-Mediated Interventions to Increase the Social Interaction of Children with Autism: Consideration of Peer Expectancies. *Focus on Autism and Other Developmental Disabilities,* 17 (4): 198-207.

Estell, D.B., Jones, M.H., Acker, R.V., Farmer, T.W. & Rodkin, P.C. 2008. Peer Groups, Popularity, and Social Preference: Trajectories of Social Functioning Among Students with and without Learning Disabilities. *Journal of Learning Disabilities,* 41 (1): 5-14.

Fenty, N.S., Miller, M.A. & Lampi, A. 2008. Embed Social Skills Instruction in Inclusive Settings. *Journal of Intervention in School and Clinic,* 43 (3): 186-192.

Gonzales-Lopez, A., Kamps, D.M. 1997. Social Skills Training to Increase Social Interactions between Children with Autism and Their Typical Peers. *Focus on Autism and Other Developmental Disabilities,* 12: 2-14.

Gresham, F. M., Cook, C. R., & Crews, S. D. 2004. Social Skills Training for Children and Youth with Emotional and Behavioral Disorders: Validity Considerations and Future Directions. *Behavioral Disorders,* 30: 32-46.

Harris, K.I., Pretti-Frontczak, K. & Brown, T. 2009. Peer-Mediated Intervention: An Effective, Inclusive Strategy for All Young Children. *The National Association for the Education of Young Children.* 1 (1): 1-15.

Kavale, K.A, & Forness, S.R. 1996. Social Skills Deficits and Training: A Meta Analysis of the Research in Learning Disabilities. *Advances in Learning and Behavioral Disabilities,* 9: 119-160.

Klavina, A. & Block, M.E. 2008. The Effect of Peer Tutoring on Interaction behaviors in Inclusive Physical Education. *Physical Activity Quarterly,* 25 (2): 132-158.

Laushey, K.M. & Heflin, L.J. 2000. Enhancing Social Skills of Kindergarten Children with Autism through the Training of Multiple Peers as Tutors. *Journal of Autism and Developmental Disorders,* 30 (3): 183-193.

Marlina. 2008. Dinamika Penerimaan Teman Sebaya pada Siswa Berkesulitan Belajar di Sekolah Inklusif. *Jurnal Pembelajaran,* 30 (2): 1-10.

Meadan, H. & Monda-Amaya, L. 2008. Collaboration to Promote Social Competence for Students with Mild Disabilities in the General Classroom: A Structure for Providing Social Support. *Intervention in School and Clinic,* 43 (3): 158-167.

Miller, M.J., Lane, K.L. & Wehby, J. 2005. Social Skills Instruction for Students with High-Incidence Disabilities: A School Based Intervention to Address Acquisition, Deficits. *Preventing School Failure,* 49 (20): 27-39.

Nowicki, E.A. 2003. A Meta Analysis of the Social Competence of Children with Learning Disabilities Compared to Classmates of Low and Average to High Achievement. *Learning Disabilities Quarterly,* 26 (1): 1-61.

Plumer, P.J. & Stoner, G. 2005. The Relative Effects of Classwide Peer Tutoring and Peer Coaching on the Positive Social Behaviors of Children with ADHD. *Journal of Attention Disorders,* 9 (1): 290-300.

Robertson, Jo, Green, K,. Alper, S., Schloss, P.J. & Kohler, F. 2003. Using a Peer-Mediated Intervention to Facilitate Children's Participation in Inclusive Childcare Activities. *Education and Treatment of Children,* 26 (2): 249-267.

Ryan, J.B., Reid, R. & Epstein, M.H. 2004. Peer Mediated Intervention Studies on Academic Achievement for Students with EBD. *Remedial and Special Education,* 25 (6): 330-341.

Schneider, N. & Goldstein, H. 2008. Peer-related Social Competence Interventions for Young Children with Communication and Language Disorders. In W. H. Brown, S. L. Odom, & S. R. McConnell (Eds.), *Social Competence of Young Children: Risk, Disability and Intervention* (233–252). Baltimore, MD: Brookes.

Shepherd, T.L. 2010. *Working with Students with Emotional and Behavior Disorders: Characteristics and Teaching Strategies*. New Jersey: Pearson Education Inc.

Staubitz, J.E., Cartledge, G. & Yurick, A.L. 2005. Repeated Reading for Students with Emotional or Behavioral Disorders: Peer- and Trainer-Mediated Instruction. *Behavioral Disorders,* 31 (1): 51-64.

VandenBerg, N.L. 2001. The Use of a Weighted Vest to Increase On-Task Behavior in Children with Attention Difficulties. *The American Journal of Occupational Therapy,* 55 (6): 112-134.

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