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.

Labu Djuli
Universitas Negeri Malang, Insonesia
labu.djuli@yahoo.co.id

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

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