The Effect of Cooperative Learning Model Implementation of TPS Type *(Think-Pair-Share)* on Learning Outcomes of Grade IV Students Theme 6 Sub-Theme 2 in Elementary School Muhammadiyah 01 Jember

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Abstract: This study aimed to determine whether or not there is an effect of the implementation of the TPS (Think-Pair-Share) type of cooperative learning model on the learning outcomes of grade IV students of theme 6 sub-theme 2 at Elementary School Muhammadiyah 01 Jember. This is an experimental research. The research design used was a quasi-experimental study with a non-equivalent control group pattern. The sample of this research was grade IV A consisting of 34 students and grade IV B consisting of 35 students. Data collection methods used included observation, interviews, documentation, and tests. The results showed that t-count > t-table (6,586 > 1,977) with a significance level of 5% and db = 136. Then, the results of the relative effectiveness test of student learning outcomes who were taught using the TPS type cooperative learning model compared to students who were taught by lecture and discussion method of 63 ,1% which is included in the high effectiveness category, so it can be concluded that there is an effect of implementing the TPS type cooperative learning model (Think-Pair-Share) on the learning outcomes of grade IV students theme 6 Sub-theme 2 at Elementary School Muhammadiyah 01 Jember.

Keywords: cooperative learning model, Think-Pair-Share, learning outcomes.

1. INTRODUCTION

One of the goals of Indonesia contained in the preamble to the 1945 Constitution of the Republic of Indonesia is to educate the nation's life. To achieve this goal, it can be done through education. This is in accordance with Law No. 20 of 2003 Chapter 2 Article 3 to develop the potential of students to become citizens who believe and fear of God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and responsible. Therefore, education with good quality is needed so that these goals are achieved optimally.

The improvement of the education quality in Indonesia certainly cannot be separated from the applicable curriculum, namely the 2013 curriculum. Learning in the 2013 Curriculum is carried out in an integrative thematic manner aiming to provide meaningful learning to students by connecting the concepts of each subject which can make students understand and think creatively in each learning concepts. Majid (2014: 89) also explained that thematic learning must be student-oriented, while during learning activities, the teacher only acts as a facilitator, however, in fact, there is still a lot of teacher-centered learning.

Teachers must be able to choose an interesting learning model. Teachers must think creatively in creating an active, effective, creative, innovative, and fun learning process so that the material can be absorbed properly. Observations made at Elementary School Muhammadiyah 01 Jember in grades IV A and IV B found that teachers tended to use the lecture method so that the mastery of learning outcomes on thematic tests of theme 1, sub-theme 2 and 3, grades IV A and IV B had a percentage of 22.2% and 38.9%, respectively. The data

showed that each class has not reached the average value that students must achieve.

This can happen because teachers are less creative in choosing learning models so that variations of learning models are needed to overcome this, one of which is the TPS (Think-Pair-Share) type of cooperative learning model. Cooperative learning is a learning system where students have the opportunity to work together with others in structured tasks (Abidin, 2014: 241), while the TPS (Think-Pair-Share) type of cooperative learning model or think in pairs sharing is a type of cooperative learning made to influence students' interaction patterns (Hamdayama, 2015: 201).

This learning model is a learning model that aims to train students to think independently, discuss with friends, and present the learning outcomes they have obtained. Students are trained to think independently related to problems or material given by the teacher which is called the think stage. Then, students are divided in pairs to discuss or exchange ideas with their friends regarding the problems that have been studied called the pair stage. Finally, students are asked to convey the learning outcomes that have been obtained from a discussion process with friends called the share stage.

The use of this type of learning method is expected to have a good effect on student learning outcomes in thematic learning. Not only listening to the teacher's explanation, but also students will be asked to think independently first (think), so that when discussing at the pair stage, students already have answers to the problems given. At the share stage, students with their classmates are trained to be confident in expressing their opinions from the results of

discussions obtained previously. The material will be easier to understand and students will be active in learning because they are given many opportunities to think, respond, and help each other.

The research conducted by Sulianto, et al (2019:129) revealed that the use of the TPS type of cooperative learning model has a significant effect on the learning outcomes of grade V students between the group that applies the TPS type of cooperative learning model and the group of students who apply the conventional learning model of human and animal body organ material. The research was conducted by examining the effect of the TPS type cooperative learning model in one learning theme.

In accordance with the background that has been described, a research is conducted with the title "The Effect of Cooperative Learning Model Implementation of the TPS Type (Think-Pair-Share) on the Learning Outcomes of Grade IV Students Theme 6 Sub-theme 2 at Elementary School Muhammadiyah 01 Jember".

2. RESEARCH METHOD

This is an experimental research. The research design used was a quasi-experimental study with a non-equivalent control group pattern where the grouping of sample members in the experimental group and control group was not done randomly (Masyhud, 2016:166). Below is the research design.

E:	O_1	X	O_2
C:	O_1		O_2

Non-Equivalent Control Group Pattern

Remarks:
E = experimental group
C = control group
O_1 = pre-test
X = treatment on experimental group
O_2 = post-test

(Masyhud, 2016:165-166)

Purposive sampling method was used in determining the place of research. The purposive sampling method is that the place or area of research determined intentionally with various considerations such as limited manpower, funds, and time (Arikunto, 2010:183).

This research was conducted at Elementary School Muhammadiyah 01 Jember with a research population of 104 grade IV students. 34 grade IVA students, 35 grade IVB students, and 35 students in grade IVC. Grades IVA and IVB became the sample of this study.

The homogeneity test was carried out before determining the experimental and control classes with the aim of seeing whether all classes had homogeneous abilities. This is done based on students' Final Exam scores in odd semesters using the Lavene Test using SPSS (Statistical Package for Social Science) software version 22. There were two variables in this study, namely the independent variable and the dependent variable. The use of TPS type cooperative learning model became the independent variable. Meanwhile, the dependent variable in this study was the thematic learning outcomes of theme 6 sub-theme 2 of grade IV students at Elementary School Muhammadiyah 01 Jember. An operational definition is needed to avoid different interpretations. Some terms are explained, among others. Cooperative Learning Model TPS type is a form of learning where students can think individually (think), in pairs (pair), and communicate the results of their discussions to other students (share). Learning Outcomes is the difference between pretest and posttest scores obtained after grade IV students of Elementary School Muhammadiyah 01 Jember took part in learning the theme of My Goals implementing the TPS type cooperative learning model. Aspects that are measured are only cognitive aspects including C1 (remembering), C2 (understanding), C3 (implementing), and C4 (analyzing).

The steps in this research are identifying and formulating research problems, conducting preliminary studies and literature review, making research hypotheses, carrying out homogeneity tests, determining control and experimental groups, conducting pretests, presenting material and treatment of cooperative learning type TPS only experimental group, conducting posttest, analyzing data using t-test data analysis technique, conducting research hypothesis testing, and making conclusions. While the data collection methods include observation, interviews, documentation, and tests. Before the test is examined, the instrument is tested for validity, reliability, analysis of discriminatory power of questions, and analysis of the level of difficulty of the questions to determine the feasibility of the product. The validity test carried out includes the validity of experts consisting of two validators, namely class teachers and lecturers at the University of Jember and field validity which was carried out at Public Elementary School Karangrejo 01. Based on the validity test, it obtained results that there are six invalid questions including questions number 1, 12, 19, 27, 30, and 40.

Meanwhile, the reliability test was carried out using the split-half method with the results of a high reliability category.

The data analysis technique used is the t-test analysis technique for a separate sample. One of the formulas for separate samples is as follows.

$$t = \frac{M_2 - M_1}{\sqrt{\frac{\sum x_1{}^2 + \sum x_2{}^2}{N(N-1)}}}$$

T-test formula for data analysis

(Masyhud, 2016:382)

Remakrs:
M_1 = The average value of the X_1 group (experimental group)
M_2 = The average value of X_2 group (control group)
X_1 = Deviation of each value X_1 from the average value X_1
X_2 = Deviation of each value X_2 from the average value X_2
N = Number of research subjects/samples

In addition, to determine the effectiveness of the learning outcomes of the Cita-Citaku (My dream) theme in grade IV of Elementary School Muhammadiyah 01 Jember, it is necessary to calculate the relative effectiveness level using the formula.

$$\text{ER} = \frac{MX_2 - MX_1}{\left(\frac{MX_1 + MX_2}{2}\right)} \times 100\%$$

Relative effectiveness rate formula

(Masyhud, 2016:384)

Remarks:
ER = The relative effectiveness of the experimental class treatment compared to the control class treatment.
MX_1 = The mean value in the control group
MX_2 = The mean value in the experimental group

3. RESEARCH RESULTS AND DISCUSSION

The homogeneity test was carried out first by using students' Final Exam scores in odd semesters using SPSS version 22 software and the results obtained that the two classes were not homogeneous. Based on the results of the homogeneity test, the experimental class and the control class were determined by cross-treatment. Both classes were given both experimental treatment and control treatment. The experimental class learning outcomes scores were obtained from the combined learning outcomes scores of the two classes after being given experimental treatment, and the control class learning outcomes scores obtained from the combined learning outcomes scores of the two classes after being given control treatment.

The data analyzed was the difference between the pretest and posttest scores in both classes using a t-test using SPSS version 22. Based on the calculations, the t_count value was 6.586, then the t_count value was consulted with the t_table value with a significance level of 5%. It can be seen that the value of the degree of freedom (db) is the total number of samples minus 2, i.e. $138 - 2 = 136$. The t-table score was then calculated by using MS Excel with the formula {=TINV (0.05;136)} and obtained t$_{table}$ 1,977.

The calculation results above show that t-count > t-table $(6.586 > 1.977)$, then the null hypothesis (Ho) is rejected and H_a is accepted. The conclusion obtained is the effect of student learning outcomes implementing the TPS type cooperative learning model in grade IV theme 6 Sub-theme 2 at Elementary School Muhammadiyah 01 Jember. In accordance with the opinion of Hamdayama (2015:203-205) that one of the advantages of the TPS type cooperative learning model is that student learning outcomes are getting deeper, the development of student learning outcomes can be seen gradually, so that optimal learning outcomes are obtained.

On the other hand, the results of the relative effectiveness test in the data analysis showed that the relative effectiveness (ER) value of 63.1% was included in the high effectiveness category. This can happen because compared to using discussion and lecture methods, the use of the TPS type cooperative learning model shows better results.

The difference in treatment causes differences in learning outcomes between the experimental and control groups. The experimental group was given a TPS type learning model in three stages. According to Hamdayama (2015: 202-203), the first stage is the (think) stage, students are given problems or questions related to the learning material, then students solve these problems individually, then the (pair) stage, where students pair up with their classmates to discuss the results of the problems obtained previously. The third stage is the (share) stage where students share the results of the discussions they obtain with their classmates in front of the class.

The three stages have the objectives that students can understand the material better given by the teacher. In the first stage, namely the think stage, the teacher gives problems regarding the animal life cycle which is done individually. Then, in the pair stage, students discuss with their classmates about the results of the answers. At this stage, students no longer rely on their friends because students already have answers that have been obtained previously in the think stage in order to find the right answer. Furthermore, in the share stage with their classmates, students present their answers in front of the class, then other groups respond to each other. Ghe teacher also provides corrections if there are answers from the group that are not correct. This is in accordance with Trianto's opinion (in Winantara and Jayanta, 2017:10) that the TPS type learning model is a type of learning that can make variations in class discussion because knowledge can control the whole class and make students active in discussions.

There are obstacles during the learning process using this method. Obstacles in the form of groups that are formed are too many, so that it takes up a lot of time in the learning process. In accordance with the study of Hamdayama's theory (2015:203-205) that one of the weaknesses of the TPS type learning model is that the number of groups formed is too large. The solution is that the teacher must give time limits to students when doing the tasks given so that learning objectives can be achieved.

Besides, the TPS type learning model also has advantages, namely, increasing empathy. Students will respect other people's opinions and can accept if their opinions are not accepted. In accordance with the study of Hamdayama's theory (2015:203-205) about the advantages of the TPS type learning model, which can increase mutual acceptance and enthusiasm so that students will feel confident to express their opinions in front of the class.

The control class implements discussion and lecture methods. Students are divided into groups of four students after the material has been taught. Then, students are given group worksheets (LKK) to work on together with their groups. Rusman (2014:202) argued that cooperative learning is a learning activity where students form small groups of four to six people, collaborate with each other in learning and work and are heterogeneous. In this stage of group discussion, there are some students who do not participate in

doing the assignments from the teacher. This is because students only rely on their friends who are considered smarter. When learning occurs, students chat with their friends, look bored and less enthusiastic during the learning process.

The holistic analysis results obtained are also in accordance with research relevant to this study. The research results of Sulianto et al. (2019:129) which shows that there is a significant effect on the use of the TPS type cooperative learning model on the learning outcomes of grade V students on the material of human and animal organs, with the results of t_{test} obtained $t_{count} > t_{table}$ namely $4,7312 > 1,72$. The results of Asdar's research (2015: 62) reveal that there is an effect of the implementation of the TPS type cooperative learning model on the Social Sciences learning outcomes of grade IV elementary school students, with the results of t_{test} obtained $t_{count} > t_{table}$ namely $14,113 > 2,552$.

Based on the overall analysis and relevant research obtained, it can be concluded that there is an effect of implementing the TPS type cooperative learning model on the learning outcomes of grade IV students with theme 6 Sub-theme 2 at Elementary School Muhammadiyah 01 Jember.

CLOSING

The conclusion obtained is that there is an effect of the implementation of the TPS type cooperative learning model on the learning outcomes of grade IV students with theme 6 Sub-theme 2 at Elementary School Muhammadiyah 01 Jember. This can be known based on the difference in scores. In the results of the pretest and post-test experimental class and control class which shows the t_count value of 6.586, while the t_table value with a significance level of 5% db = 136, the t_table value is 1.977. The ER value is 63.1%. The conclusion from the explanation above is that the implementation of the TPS type learning model is more effective than the use of lecture and discussion methods.

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