The Effect of TGT Cooperative Learning Model Assisted by Multimedia Learning on Cooperation and Learning Outcomes of Class V Elementary School Students for Social Sciences

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ABSTRACT

The purpose of this study was to determine the effect of the Cooperative Learning Model Type Team Games Tournament (TGT) Assisted by Multimedia Learning on Cooperation and Learning Outcomes of Fifth Grade Elementary School Students in Social Sciences. The design in this study is a quasi-experimental with one group pre-test post-test. The purpose of using this design is to determine whether or not there is an increase in the application of the cooperative learning model of the type of TGT assisted by multimedia learning on the cooperation and learning outcomes of fifth grade elementary school students in social studies subjects. The subjects in this study were the fifth grade elementary school students totaling 30 students. The research instrument consisted of observation sheets and questionnaires to measure cooperation and student learning outcomes. Based on the research that has been done, it is found that cooperative learning of the type of TGT assisted multimedia learning has an influence on cooperation. It was also found that cooperative learning of the type of TGT assisted by multimedia learning had an influence on student learning outcomes. So it is necessary to increase cooperative learning type TGT to improve cooperation and student learning outcomes.

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1. INTRODUCTION

Social Sciences is applied knowledge that is carried out in instructional activities in schools in order to achieve certain educational and learning goals, one of which is to develop students' sensitivity to the social life around them (Fanny & Suardiman, 2013). The purpose of social studies learning is to introduce students to knowledge about people's lives systematically. Thus the role of Social Sciences is very important to educate students to develop knowledge, attitudes, and skills so that they can take an active part in their future lives as members of society and good citizens (Khumairoh, 2017). This goal gives a
great responsibility to the teacher to use a lot of energy and thought in order to teach social studies properly and correctly (Pratiwi et al., 2018).

Social studies learning activities in elementary schools said to be successful theoretically if students able to master social studies concepts in accordance with the applicable curriculum and able to apply them in everyday life (Sukmanasa et al., 2017). This can be an indicator that the learning activities carried out provide meaning for students. The achievement of meaningful learning cannot be separated from the ability of teachers to innovate learning with various strategies, models, methods, or media according to the characteristics of their students (Rosihah & Pamungkas, 2018).

Submission of monotonous material by the teacher in learning activities can make students feel bored and less interested in participating at learning activities (Rohmah & Wahyudin, 2017). This is because teachers are less able to apply a method or learning model that can attract students to be actively involved and easily understand the material being studied, for example in the field of social studies (Durrotul et al., 2017). In addition, teachers are less able to master the class well and do not understand classroom conditioning in achieving the success of a lesson. This condition causes students to have low learning outcomes and levels of cooperation related to social studies subjects. Low learning outcomes related to social studies lessons cause children to not understand and apply the points that the teacher wants to convey. where these points are very useful in social life later. Meanwhile, low cooperation has an impact on solidarity and also concern for others. In essence, cooperation means working together to achieve a common goal (Sanjayanti et al., 2018). Cooperation is one of the most basic social processes. The existence of low cooperation skills can lead to seeds with the character of “want to win alone” and less caring for others (Murfiah, 2017).

Based on this phenomenon, it is necessary to formulate appropriate problem solutions to achieve learning goals, namely the process and student learning outcomes, especially in social studies subjects (Nurrita, 2018). One of the interesting alternative learning models is the cooperative learning model because cooperative learning is based on the idea that students work together in group learning and at the same time each student is responsible for the learning activities of group members, so that all group members can master the material well. In addition, cooperative learning can improve student learning outcomes, as well as improve social relations skills, foster an attitude of accepting shortcomings and increase self-esteem (Wijaya & Arismunandar, 2018).

In the cooperative learning model, its application can be done in various ways. One way is the cooperative learning model of the team games tournament or TGT type (Sulistyo, 2016). TGT combines group learning with team competition, and can be used to enhance learning of various facts, concepts and skills (Parmiti, & Wibawa, 2015). Learning with this model will stimulate student activity, because in the Teams Games Tournament there are no students who are not actively voicing their opinions, students with lower and upper group abilities work together to solve the problems given in learning.

Teams Games Tournament (TGT) is a type of cooperative learning that places students in study groups consisting of 5 to 6 students who have different abilities, genders, and syllables or races (Solihah, 2016). So that students can help each other in solving learning problems faced. The application of the cooperative learning model of the TGT model in social studies subjects is expected to create an active student learning atmosphere with dimensions of joy, which communicate with each other, share, give and receive, which in addition to increasing understanding of the material, it also increases students’ social interactions, because learning is like a game and a competition (Seran, et al., 2019). So that it can improve student learning outcomes, especially in social studies subjects. Learning outcomes are indicators of changes in student behavior or maximum results from something, either in the form of studying or working (Hamalik, 2006). Improved learning outcomes are an efforts, actions, ways to increase or improve learning outcomes (Mahajan & Singh, 2017). Improving learning outcomes is a process of change in the human personality and these changes are shown in the form of increasing the quality and quantity of behavior such as increasing skills, knowledge, attitudes, habits, understanding, skills, thinking power, and others.
However, the achievement of these expectations cannot be separated from the supporting components of the learning process in the classroom, that is learning media. During a pandemic, technology-based media has become a fairly important and reliable tool for teachers (Yahya & Bakri, 2019). The media itself is basically a means to convey messages or information so that it can be received properly and even interestingly. The selection of the right learning media can have an effect in realizing the achievement of learning goals. Multimedia learning can help teachers to design learning creatively and can be accessed on a network so that it really supports virtual learning which is currently being intensively implemented. With creative learning media, the learning process becomes innovative, interesting, more interactive, more effective, the quality of student learning can be improved, the teaching and learning process can be done anywhere and anytime, and students' attitudes and interest in learning can be improved (Amroellah, 2020).

A study on the application of TGT was also carried out by Kusumaningrum, et al. (2015). The application of TGT in this study only purely tested the effect of TGT on Science Learning Outcomes without involving multimedia learning. Other research conducted by Rohmah (2016) where in this study, researchers have integrated technology through the application of online games, but have not involved the cooperation variable. Students who are in the fifth grade of elementary school are individuals in the transition period from children to teenagers. At this age, various activities are needed that can support their ability to recognize themselves. Riyanto & Martinus (2008) revealed that learning activities that develop cooperative abilities can be carried out as an effort so that children know themselves better. When in groups children will learn to solve conflicts. In addition, they also learn to develop a civilized life.

Based on the background of the problems that have been described, this study aims to examine the effect of the cooperative learning model type team games tournament (TGT) assisted by multimedia learning on cooperation and learning outcomes of fifth grade elementary school students in social studies subjects.

2. METHODS

The design in this study used a quasi-experimental one group pre-test post-test. The purpose of using this design is to determine whether or not there is an increase in the application of the TGT type cooperative learning model assisted by multimedia learning to the collaboration and learning outcomes of fifth grade elementary school students in social studies subjects. The subjects in this study were 30 grade elementary school students with 12 male students and 18 female students in one class. The research instrument consisted of observation sheets and questionnaires to measure cooperation and student learning outcomes. The following is the research design used:

\[
\begin{array}{c|c}
O_1 & X \\
\hline
O_2 \\
\end{array}
\]

O1 = Pretest
X= application of cooperative learning model type team games tournament (TGT) assisted multimedia learning
O2= Posttest

The technique used to obtain data in this study is a test. The tests given in this study included pre-test and post-test. The aim is to determine cooperation and learning outcomes in students before receiving treatment and after receiving treatment. In this study, the TGT consisted of 5 stages, that are: class presentation, teams, games, class presentation, and team recognition. In this study, the researchers conducted a test by giving a mock up presentation task of a traditional house and ice breaking for each group. The indicators of cooperation used are: 1) willing to accept responsibility, 2) helping group friends.
in carrying out their duties, 3) respecting the opinions of group mates, and 4) respecting the work of group mates. The learning outcomes were obtained from assignments regarding the material that had been presented which the researchers distributed through the g-form

**Validity and Reliability Test**

The validity test in this study was used assisted by SPSS program by comparing the value of r count (correlated item-total correlations) with the value of r table. If the value of r arithmetic > r table and positive value then the question is said to be valid. Reliability test is conducted to find out whether the measuring instrument designed in the form of a questionnaire is reliable, a measuring instrument can be reliable if the measuring instrument is used repeatedly will give relatively same results (not much different). The decision-making criteria to determine the reliability is if the value of r (Cronbach’s alpha) is greater than 0.6 then the instrument is said to be reliable. On the other hand, if the value of r (Cronbach’s alpha) is less than 0.6 then the instrument is not reliable

**Analysis Prerequisite Test**

The analysis prerequisite test was carried out using the normality test and homogeneity test. The normality test was carried out on the experimental group and the control group both before and after treatment, whether each class was normally distributed or not. The normality test used the Kolmogorov-Smirnov test with a significance level of 0.05. The criteria used are: 1) if the significance value is more than or equal to 0.05, which means that the data comes from a normally distributed population, 2) if the significance value is less than 0.05, it means that the data comes from a population is not normally distributed. Homogeneity test was conducted to determine the similarity of variance to the experimental group and the control group. The homogeneity test used is Levene’s homogeneity test with the help of SPSS software. The level of significance used is 0.05 with the following criteria: 1) if the value or significance value is less than or equal to 0.05, it means that the data does not have a homogeneous variance, 2) if the significance value is more than 0.05, it means that the data has a homogeneous variance.

**Hypothesis Test**

The hypothesis test in this one group pretest posttest research is the t test. The purpose is used to compare the condition before being given treatment and the situation after being given treatment. One group pretest posttest design was carried out 2 times before and after being given treatment.

| Instrument Test | Classic Assumption Test | Hypothesis Test |
|-----------------|-------------------------|-----------------|
| Validity Test   | Normality Test          | Paired t Test   |
| Reliability Test| Homogeneity             |                 |

### 3. FINDINGS AND DISCUSSION

**Instrument Validity Test Result**

Based on the results of the calculation the instrument validity, it is known that all items have an r-count value that is greater than the r-table, so it can be concluded that all items of the instrument are valid and feasible to use. Likewise with the results of the reliability test where the Cronbach Alpha score obtained > 0.6 so that the instrument items are said to be reliable.
Analysis Prerequisite Test Results

Normality test and homogeneity test are prerequisite tests that must be carried out before the hypothesis test. Based on the results of the normality assumption test for the parenting skill and tantrum variables, a value greater than 0.05 (p>0.05) was obtained so that it was normally distributed. Likewise with the results of the homogeneity test which obtained a p value> 0.05 so that it was declared homogeneous.

Hypothesis Test Result

The following presents the results of the pretest and posttest on the variables of the cooperative learning model type team games tournament (tgt), multimedia learning and student learning outcomes.

T-Test

The t-test was used to determine whether or not there was a positive and significant effect on the application of a CTL-based parenting program assisted by a mobile training program compared to a conventional CTL-based parenting program to improve parenting skills of parents and overcome tantrums for children aged 3 years as seen from the average difference. The mean between the pretest and posttest of the two sample groups was analyzed by t-test.

| Variable   | t-count | sig   | Explanation |
|------------|---------|-------|-------------|
| Result     | -231.562| 0.000 | Significant |
| Cooperation| -145.399| 0.000 | Significant |

In the t-test the criteria for accepting the hypothesis are as follows: 1) If t-count > t-table and sig <0.05, then H0 is rejected and H1 is accepted; 2) If t-count < t-table, and sig > 0.05, then H0 is accepted and H1 is rejected. In the t-test table above, the results of t-count > t-table and the overall significance level is 0.000 <0.05 where it is concluded that the overall hypothesis is accepted. Based on the test results, it is known that the TGT learning model assisted by multimedia learning has an effect on student learning outcomes and collaboration.

DISCUSSION

TGT Type Cooperative Learning Assisted by Multimedia Learning on Cooperation

From the results of the tests carried out, it is known that the TGT Type Cooperative Learning Assisted by Multimedia Learning has an effect on Cooperation. This can be seen from the acquisition of the mean score of the cooperation pretest of 23.466. With the T test, it is known that the t-count value > t-table and sig <0.05 so that h0 is accepted that the TGT-type cooperative learning assisted by multimedia learning has an effect on cooperation.

The results of this study are in accordance with research by Yunanda et al., (2018) which was research in the 12th grade science lesson of Senior High School 1 Lengayang. Cognitive, affective and psychomotor learning competencies of students who follow the TGT cooperative learning model are better than students who follow conventional learning, the competence of early high and low cognitive learning abilities of students who follow the TGT cooperative learning model is better than students who follow conventional learning. Other research also states that multimedia learning assistance has an effect on cooperation (Al Fath, 2021; Ardianti & Marlena, 2020; Panggabean et al., 2021).

The TGT learning model is constructivist. This model focuses on extracting students' knowledge; In this learning model, students are expected to explore critical information in their learning materials. The TGT learning model is a type of cooperative learning that places students in study groups consisting of 5 to 6 students with different abilities, gender, and syllables or races (Baktini et al., 2019). According to Slavin (in Primandari et al., 2019), TGT type cooperative learning consists of five stages, that are the class presentation stage, learning in teams, games, tournaments, and teams recognition.
Taniredja (in Christian et al., 2018) This learning model is a student center with advantages (1) students have the opportunity to interact with other students and express their opinions verbally, (2) can increase the confidence of each student, and annoying. The behavior of other students is reduced. In addition to having advantages, of course this learning model has disadvantages, that are, (1) not all students in the active group argue, (2) there is very little time, (3) the possibility of a commotion because it is not conditioned. If this learning model is done frequently, it can make students accustomed and the noise will be reduced.

The Effect of the TGT Cooperative Learning Model Assisted by Multimedia Learning on Student Learning Outcomes

From the results of the tests carried out, it is known that Cooperative Learning Type of Team Games Tournament (TGT) Assisted by Multimedia Learning has an effect on Cooperation. This can be seen from the acquisition of the mean score of the cooperative pretest of 37.3667. With t test, it is known that the t-count value > t-table and sig < 0.05 so that H0 is accepted that the TGT type cooperative learning assisted by multimedia learning has an effect on student learning outcomes.

This research is included in experimental research which aims to improve Student Cooperation and Learning Outcomes through improving also the TGT type cooperative learning model assisted by multimedia learning. This research is similar to the research entitled “the effect of the koop learning model. Tgp type assisted by tts media on student learning outcomes” (2018) this research was conducted on science learning for class V at Tegalgede 01 Jember elementary school which showed that there was an effect of using the TGT type cooperative learning model with the aid of crossword puzzles on the learning outcomes of science class V at Tegalgede 01 Jember elementary school. The results of this study are also in accordance with research by (Azis & Pertiwi, 2021; Rohmah & Wahyudin, 2017; Syaifuddin, Nurlela, & Prasetya, 2020).

According to research by (Maiti et al., 2021), The TGT learning model has a very strong effect on improving learning outcomes at the high school level, reaching 91% with an estimated impact of 0.905 which is included in the very strong category. Then in the classification of subjects the TGT method was very strong, the increase in social studies subjects reached 88% with an estimated impact of 0.877 which was included in the very strong category. The results of research on cooperative learning models, especially the type of Team Game Tournament (TGT) in improving learning outcomes, for example the learning outcomes of students taught using the TGT method are higher than the STAD method (Solihah, 2016) the average percentage of student cooperation increased by 7.09% from the first cycle of 75.08% increased to 82.17% in the second cycle and the average student science learning outcomes increased by 9.28% from the first cycle of 65.30% increased to 75.1% in cycle II (Triowathi & Wijayanti, 2018), TGT can increase student activity and learning outcomes (Nurhidayah, 2018).

4. CONCLUSION

From the research and discussion above, it can be concluded that TGT cooperative learning assisted by multimedia learning has an effect on cooperation. It was also found that the type of TGT cooperative learning assisted by multimedia learning had an effect on student learning outcomes. So it is necessary to increase the type of TGT cooperative learning to improve cooperation and student learning outcomes. If the teacher applies the learning model in class V in social studies lessons, it will be able to increase cooperation and student learning outcomes. The ability of students to cooperate with this learning model will initially cause a commotion in the group but then it will familiarize students to cooperate with fellow friends, especially one group. The research only focuses on one subject and only in one class, so it is hoped that further research can be expanded both in the subject and in the number of students.
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