THE COOPERATIVE LEARNING TYPE OF TEAM GAMES TOURNAMENT (TGT): ITS APPLICATION TO MATHEMATICS LEARNING IN PRIMARY SCHOOLS

Nuril Huda[1], Muhammad Rusli[2], Sonia Yulia Friska[3], Kadiyo[4],
Ferry Gustian Pratama[5], Saman[6]
[1]UIN Maulana Malik Ibrahim Malang, [2]Universitas Negeri Yogyakarta,
[3]Universitas Dharmas Indonesia, [4]STAI Nida El Adabi,
[5]SDN 104/VIII Sumber Sari, [6]Universitas Muhammadiyah Palopo
[1]nurilhuda26@uin-malang.ac.id, [2]muhammad.rusli0318@gmail.com,
[3]soniayuliafriska@undhari.ac.id, [4]kadiyodjumadik@gmail.com,
[5]ferrypratama58@guru.sd.belajar.id, [6]saman@umpalopo.ac.id

ABSTRACT

The paper aims to explore the differences in student learning outcomes between the application of the Cooperative Learning Type of Team Games Tournament model and the science learning outcomes of students using conventional learning methods in class V of elementary schools. The type of research that researchers use is experimental research. The population in this study were all class V students at SDN 48 GKP, Padang, totaling two classes. Of these two classes, one class would be taken as the experimental class and one as the control class, while the sampling technique was carried out using the Total Sampling technique. The results of the research show that the MTK learning results of students who use the TGT learning model, after data analysis, obtained tcount = 3.079 and ttable = 1.6779. It can be seen from the obtained data that tcount > ttable. Therefore, it can be concluded that there is an impact between the MTK learning outcomes of students who adopt the TGT model and the MTK learning outcomes of students who adopt traditional Using learning. That is, the MTK learning outcomes for Class V students , the performance of students using the TGT model is better than the performance of students using conventional learning in MTK learning.

Keywords: kooperatif, TGT, MTK, SD

ABSTRAK

Penelitian ini bertujuan untuk mengeksplorasi perbedaan hasil belajar siswa antara penerapan model Cooperative Learning Type of Team Games Tournament dan hasil belajar sains siswa yang menggunakan metode pembelajaran konvensional di kelas V sekolah dasar. Jenis penelitian yang digunakan oleh peneliti adalah penelitian eksperimen. Populasi dalam penelitian ini adalah semua siswa kelas V di SDN 48 GKP, Padang, dengan total dua kelas. Dari dua kelas tersebut, satu kelas diambil sebagai kelas eksperimen dan satu sebagai kelas kontrol, sedangkan teknik pengambilan sampel dilakukan dengan teknik Total Sampling. Hasil penelitian menunjukkan bahwa hasil belajar Matematika siswa

yang menggunakan model pembelajaran TGT, setelah analisis data, diperoleh tcount = 3,079 dan ttable = 1,6779. Dapat dilihat dari data yang diperoleh bahwa tcount > ttable. Oleh karena itu, dapat disimpulkan bahwa terdapat dampak antara hasil belajar Matematika siswa yang mengadopsi model TGT dan hasil belajar Matematika siswa yang menggunakan metode pembelajaran konvensional. Artinya, hasil belajar Matematika siswa kelas V, kinerja siswa yang menggunakan model TGT lebih baik daripada kinerja siswa yang menggunakan pembelajaran konvensional dalam pembelajaran Matematika.

Kata kunci: kooperatif 1, TGT 2, MTK 3, SD

A. Introduction

Education is the primary need that every human being must have. Education is an organized, planned and continuous effort throughout life to develop students into complete, mature and cultured human beings (Nasser, 2021). To achieve this development, educational principles must be oriented towards developing all aspects of students' potential, including cognitive, affective and psychomotor aspects. For students, learning is a process of interaction between various students' potentials (Amaliyah & Rahmat, 2021). Such as (physical, non-physical, emotional and intellectual). Likewise, interactions of students with teachers, students with other students and the environment with concepts of facts The interaction of various stimuli with various responses directed for change.

The teaching and learning process or learning is an activity of implementing the curriculum in educational institutions so that students can achieve the goals that have been set (Yuhasnil, 2020). The aim of education is basically to lead students towards changes in behavior, both intellectual, moral and socio-cultural. With education, it is hoped that students can live independently as individuals and social beings (Pujianingtias et al., 2019);(Mardapi, 2015). The learning process itself emphasizes the interaction between students, teachers, methods, programs, facilities, environmental aspects related to the acquisition of skills 'learning (Prananda et al., 2021);(Kristiantari, 2014). Competence will be achieved optimally when all components are fulfilled according to their respective

functions. According to Tasya, (2019) Achieving success in learning is impacted by numerous elements, encompassing both internal aspects within the student and external factors originating outside the student. Among these influential factors, interest plays a significant role. Interest can be defined as an individual's inclination towards a preferred object or activity, accompanied by feelings of enjoyment, attentiveness, and proactive engagement. Undoubtedly, interest holds substantial sway over students' learning outcomes. When the learning material fails to align with students' interests, their ability to learn optimally is compromised, as the absence of attraction hinders their motivation and engagement (Matondang, 2018);(Sirait, 2016). Students who are not interested in a lesson have no attention to what is being taught. In the MTK learning process, the teacher uses the lecture method and questions and answers, this is from the beginning, the teacher first conditions the class, prays, presence and makes an appearance. Apart from that, in the learning process many students are noisy, play with their classmates, walk over

to their friends' seats, teachers do not use media to stimulate students' minds, and do not do their assignments seriously. Apart from that, students are also accustomed to receiving lessons without mastering the concepts of the material well, such as students being accustomed to taking notes on material in printed books and not using media in learning, so that the learning process becomes monotonous or lacks variation.

It is found that students' difficulties in working on MTK questions were because students did not understand the material that had been studied in class, during the learning process students were always lazy and preferred to play with their classmates. This is the reason that when the exam is carried out, many students get a score below the Minimum Completion Criteria (KKM), namely 80. Seeing the problems that occur, teachers in schools must make an effort to make changes. Teachers have an important role in improving student activities and learning outcomes. To overcome this problem, researchers have a solution to improve student learning outcomes, namely by using the Team Games

Tournament Type Cooperative learning model, which creates active learning that is student-centered.

Nugroho (2013) The researchers conducted a study titled " to explore the effectiveness of the TGT model in cooperative learning. This particular model is known for its ease of implementation and its ability to create inclusive activities that do not differentiate students based on their identities. Additionally, the TGT model incorporates the use of peer tutors and incorporates elements of game and Shoimin reinforcement "The Influence of the Cooperative Learning Model Type of Team Games Tournament on the Mathematics Learning Outcomes of Grade V Students at SD Negeri 48 Ganting, Padang City".

B. Research Methodology

The paper employs experimental research. It is a research method used to find the effect of certain treatments on others under controlled conditions (Sugiyono, 2020). For this study, two sample classes were utilized: the experimental class and the control class. The experimental class received the Cooperative Team Games Tournament model as a treatment during their Mathematics (MTK) learning process, while the control class followed conventional learning methods. At the conclusion of the research, both classes underwent a final test to assess their learning outcomes. The research design employed in this study was the Randomized Control Group Only Design, which can be visualized in the following table. 1.

Table 1. Research Design

Class	Treatment	Results
Experiment	X	T
Controll	_	T

Population and Sample

The population in this study were all class V students at SDN 48 GKP, Padang, totaling two classes, of these two classes one classes would be taken as the experimental class and one as the control class. For more details, see Table 2.

Table 2. Number of Students

No	Class	Number	of	Average

		Students	
1	VA	24	65.96
2	VB	25	58.77

Samples were selected utilizing the Total Sampling method, which involves selecting a number of samples equal to the population size (Sugiyono, 2009). Judging from the average first semester exam scores for MTK subjects, Class B had a lower average than Class A, so the researchers chose class VB as the experiment and class VA as the control.

C. Research Findings and Discussion

In this section, data obtained from learning outcomes from the final tests in the two sample classes for the cognitive domain are presented. Based on the calculations, the average value ($\bar{x}$), standard deviation (s), highest score (x_max), lowest score (x_min) of the final sample class test is obtained according to the following figure.
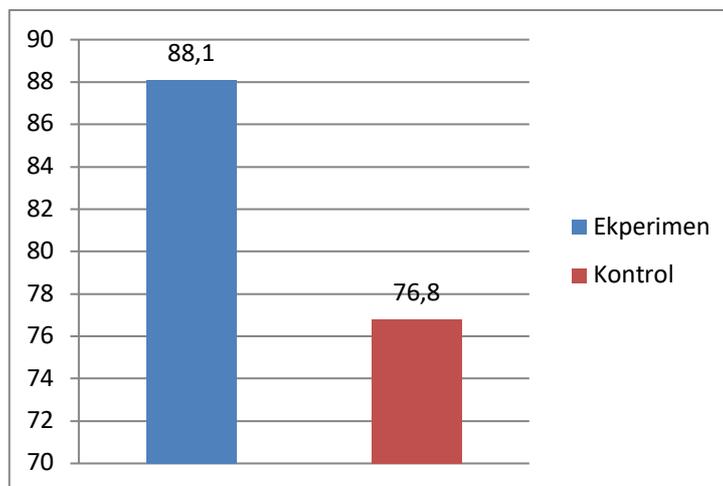

Figure 1. Average Calculation

In terms of average scores, the experimental class outperformed the control class. Additionally, when considering the percentage of students who completed the final test, the experimental class had a higher number of completions compared to the control class.

Data Analysis

Testing of the questions in this research was carried out to determine whether or not an instrument was suitable for application as a data collection tool for student learning outcomes tests. In this test, the author tested 30 questions related to

the material provided, namely regarding objects and their properties and changes in objects that are permanent and temporary. The steps taken to get questions that are applicable.

Question Validity

In this research, to determine whether the test is valid or not, the Product Moment correlation formula is used. So the test validity results were obtained from 30 trial questions. So in this study the researchers used test questions from low, sufficient and high criteria. Based on the results of data analysis, validity results were obtained as in Table 3.

Table 3. Validity Test Results

Number of Questions	Category
2,3,12,14,21	Very Low
1,4,17,19,22,23,26,27,28,30	Low
5,6,8,9,10,11,13,15,16,18,20,24,29	Enough
7,25	High

Question Reliability

In order to test the reliability, the questions were processed using the Kuder Richadson 21 (KR-21) formula. Based on the results of the test questions that have been carried out, the test reliability results obtained are 0.61. Based on table 6 of the reliability coefficient criteria, a value of 0.61 indicates that the reliability of the questions has high criteria.

Final Test Learning Results

Through the research, data on learning were collected by administering final tests on learning activities. The final test, which encompassed 25 multiple-choice questions, was administered to two groups of students: one from the experimental class consisting of 25 students, and the other from the control class consisting of 24 students. The image below illustrates the calculation of the final test learning outcomes.
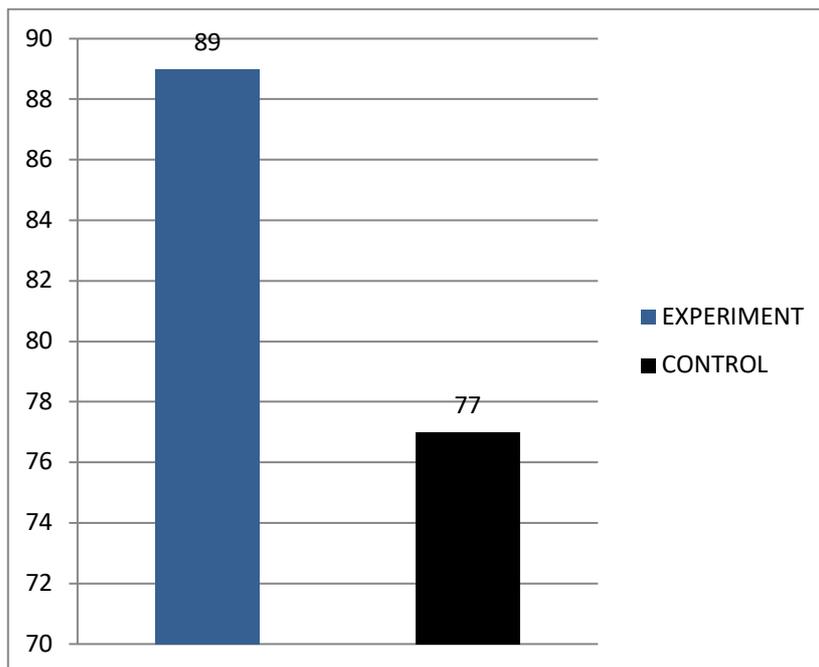
Figure 2. Data of Students' Final Test Results

Based on the analysis of student answers in the final test, student learning outcomes were obtained which can be seen in Figure 3.
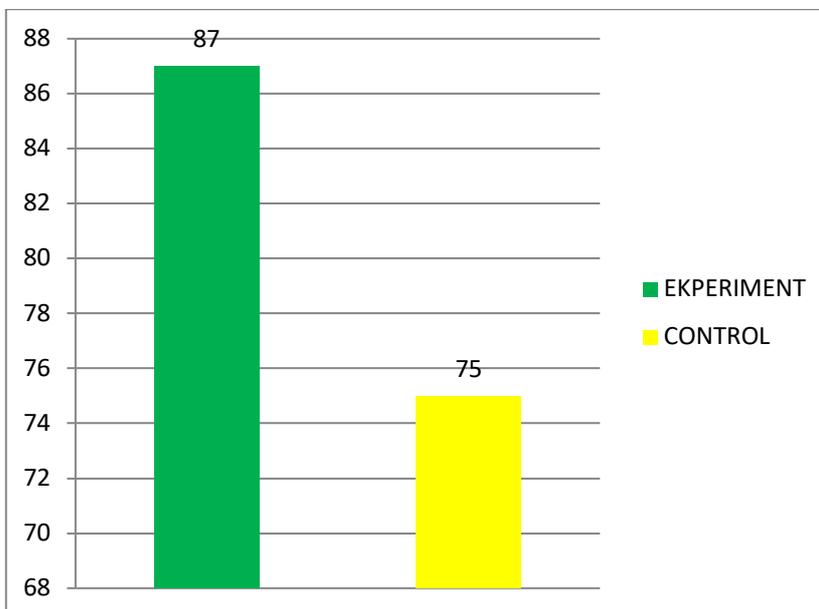

Figure 3. Results of Student Final Test Analysi

The number of students in the experimental class was 25 people with a maximum score of 100 and a minimum score of 60 with an average of 87 with a standard deviation of 10.4 and a variance of 109.16, while

the number of students in the control class was 24 people with a maximum score of 96 and a minimum score of 48 with an average of mean 75 with

standard deviation 15.17 and variance 230.13. The percentage of completeness of students' final test results can be seen below.
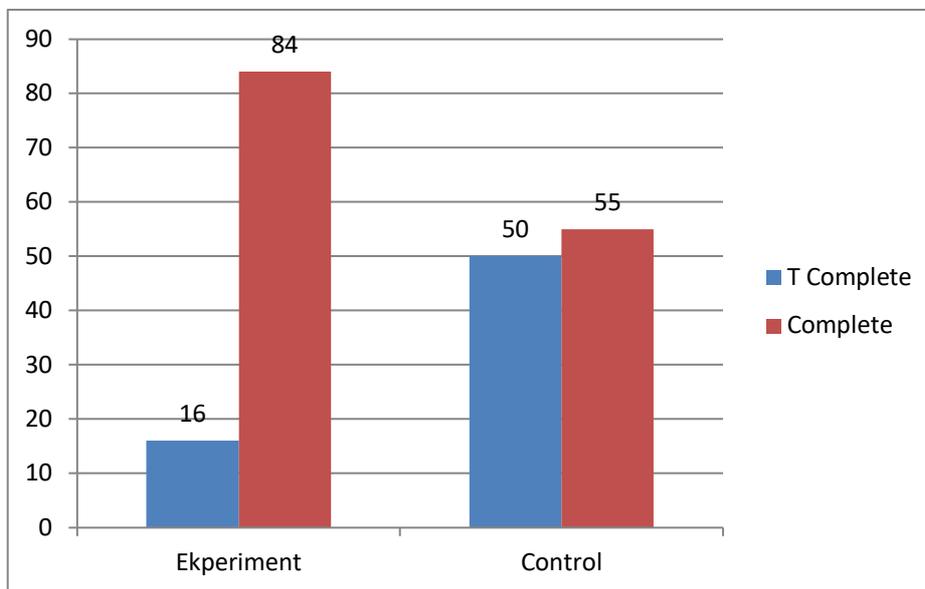

Figure 4. Percentage of Completion of Student Final Test Results

Hypothesis testing

Since the two classes of samples are normally and have

variances homogeneous, hypothesis testing can be carried out using the t-test.

Table 4. Test Results for Differences in Two Final Test Averages

Class	A	Tcount	Ttable	Conclusion
Experiment Control	0,05	3,079	1,6779	Hypothesis accepted

Based on the results of the t-test calculations, the value of tcount is 3.079 and at a real level of 0.05, the value of ttable is obtained at 1.6779. Thus, H1 is accepted because tcount > ttable and H0 is rejected because ttable <tcount. It can be concluded that there is an influence on student learning outcomes between the experimental class which uses the

Cooperative Learning Type of Team Games Tournament model and the control class which uses conventional learning.

Discussion

Mathematics learning results for students who use the Cooperative Learning Type Of Team Games Tournament learning model, after data analysis, obtained tcount =

3.079 and ttable = 1.6779. From the obtained data, it can be seen that tcount > ttable, so it can be concluded that there is a relationship between the MTK learning outcomes of students using the cooperative learning team game tournament model and the MTK learning outcomes of students using the cooperative learning team game tournament model. Influence. Traditional learning model, for students using V type, the MTK learning performance of students using cooperative learning team game tournament mode is better than the MTK learning performance of students using conventional learning.

The mathematics learning outcomes of students using the cooperative learning team game tournament model are better than the learning outcomes of MTK students using traditional learning because applying the cooperative learning team game tournament model can improve students' knowledge and understanding of learning. The advantage of the team game tournament mode of cooperative learning is that the material taught is better, because at the beginning of learning, the teacher first briefly explains the skills and materials to be mastered, and the students quickly understand the material being taught. Encourage students to memorize and understand material on the spot. Taught, as well as an increasing motivation to read books at home so that when studying at school, there is no feeling of fear of not responding when asked a question. Meanwhile, the learning that takes place in the control class is conventional learning. In this lesson the teacher only explains the learning material and the learning process is only teacher-centered. After the teacher explains the lesson, students are given the opportunity to take notes, then the teacher asks students to do an exercise. After the time is up, students are asked to collect the exercises. The thing that causes low student learning outcomes in the MTK learning process in the control class is because learning is still centered on the teacher so that the MTK learning outcomes of control class students are lower than those in the experimental class.

Cooperative Learning The type of GT team game tournament is a cooperative learning model that places students in study groups

composed of 5 to 6 of varying abilities, genders and different syllables or races (Munawaroh, 2023). This model is very appropriate for getting class participation as a whole and individually. With this learning model, students who have not wanted to be involved will participate in learning effectively.

Hamdani (2019) The results show that the benefits of the TGT learning model not only make bright students (with high academic ability) more prominent in their studies, but also enable students with lower academic ability to become active and play an important role in the group. b) This learning model promotes a sense of belonging and mutual respect among other group members. c) This learning model improves students' enthusiasm for participating in learning. Because in this study, the teacher promised to give awards to the best students or groups. d) In this type of student learning, students are more willing to attend classes because of the tournament-style game activities in the model. The application of TGT to learning is purposeful. Slavin (2010, p. 14) states that TGT has a dimension of joy that is obtained from

the use of games. Furthermore Junaeni, (2022) posits that TGT is a cooperative learning model developed Slavin to help students review and review learning materials. TGT also improves basic skills, achievement, positive interactions between students, self-esteem and accepting attitude towards other different students.

D. Result

It can be concluded that the MTK learning outcomes of students who use the Cooperative Learning Type of Team Games Tournament learning model, after data analysis, obtained tcount = 3.079 and ttable = 1.6779. From the data obtained it can be seen that tcount > ttable. Therefore, it can be considered that the MTK learning outcomes of students who adopt the team game tournament type "cooperative learning" are affected, and the game tournament mode is better than the MTK learning outcomes of students who adopt conventional learning in Class V. The advantage of the TGT learning model is not only that it can promote the learning of bright students, but students with lower academic abilities can also participate

and play an important role in their group.

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