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# EFFECTIVENESS OF MATHEMATICS LEARNING THROUGH THE APPLICATION OF THE THINK PAIR SHARE (TPS) TYPE COOPERATIVE MODEL FOR GRADE VII STUDENTS OF SMPIT AL-ISHLAH MAROS

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**ABSTRACT**

This type of research is a pre-experimental study involving only one group as the experimental class and was conducted in six meetings. The experimental unit in this study was the seventh grade students of SMP IT Al-Ishlah Maros in the 2019/2020 academic year, consisting of 122 students. The design of this study was the one group pretest-posttest design. The instruments used to collect data were learning outcome tests with pretests and posttests in the form of essays, student activity observation sheets, and student response questionnaires. The results of data analysis show that the average score of the student's pretest learning outcome test is 22.65 from the ideal score with a standard deviation of 10.38, the minimum value is 9 and the maximum value is 48. While the average score of the student's posttest learning outcome test is 88.65 from the ideal score of 100 with a standard deviation of 7.16, the minimum value is 76 and the maximum value is 100. From the posttest results, it was obtained that 29 students or 100% achieved individual mastery and this means that classical mastery was achieved. For the results of observations on student activities, 84.10% of students were active in learning, and students' positive responses after the implementation of learning were 96.55%.Based on the results of the study, it can be concluded that mathematics learning through the Think Pair Share (TPS) cooperative learning model is effective for seventh-grade students of SMPIT Al-Ishlah Maros. In addition, there was a significant increase after being given learning through the Think Pair Share (TPS) cooperative learning model in seventh-grade students of SMPIT Al-Ishlah Maros.

**Keywords: Effectiveness, Cooperative Model, Think Pair Share Type, Mathematics Learning**

## INTRODUCTION

Education is an activity aimed at achieving a predetermined goal. Education transforms thinking into a more active and practical way, transforming those who don't know into those who know and those who already know into those who understand. Mathematics is a crucial field of study in education, as evidenced by the fact that it devotes more hours to school than other subjects (Mufidah et al., 2013:118).

Mathematics is a subject studied at every level of education. This is because it is essential and useful in everyday life. Mathematics develops the ability to calculate, measure, and solve problems in everyday life. All of these skills are intended to enable students to play an active role, both in learning and in their daily lives. Students' active role in mathematics learning should be firmly established from an early age (Verowita et al., 2012:48).

Based on the results of observations in class VII.A1 SMPIT Al-Ishlah Maros on September 12, 2019, the problem faced by students is the low ability of students to solve math problems. This is because the way they obtain information and self-motivation has not been touched by methods that can help them. Students have difficulty understanding academic

concepts (such as mathematics, physics, or biology). Although many students are actually able to present a good level of memorization of the teaching material they receive, in reality they do not understand it. Many teachers when teaching concepts only focus on remembering and memorizing, and do not direct students to the level of development of higher-level thinking when facing facts, the way students learn about concepts is only theoretical and learn without practicing concepts. This method is a way of learning that is receptive so that students cannot build their own knowledge or skills.

This is caused by the lack of direct student involvement in the learning process, where students are only listeners and note-takers of what the teacher says, and dictated by the teacher in class so that students only memorize concepts and facts without knowing what, how and for what the concept or fact is studied and teachers do not provide students with enough opportunities to develop their knowledge by connecting it with phenomena that exist in their surrounding environment.

On the other hand, if students understand what they're learning now, it will be very useful for their future lives, both in society and in the workplace. Therefore, teachers need to design learning that can improve students' mathematics learning outcomes.

Based on these facts, the author intends to conduct research with the title "Effectiveness of Mathematics Learning through the Application of the Think Pair Share (TPS) Cooperative Model for Class VII Students of SMPIT Al-Ishlah Maros".

## RESEARCH METHODS

This type of research is a pre-experimental study involving one class. The research design used is a One Group Pretest-test. In this design, a pretest is administered before the treatment is given. This allows for more accurate results because it can be compared with the original situation.have not been given treatment. The implementation of this research was carried out in class VII SMPIT Al-Ishlah Maros. The sample in this research was class VII A.1. Which consists of 29 students. The data collection techniques in this research are (1) Data on student learning outcomes were obtained from the pretest before being given treatment and the posttest which was carried out at the end of the research meeting. (2) Data on student activities during the research were taken using an observation sheet. (3) Data on student responses were taken from a questionnaire. Furthermore, the data obtained were analyzed using descriptive statistics.

## RESEARCH RESULT

Student Mathematics Learning Outcomes Data before Treatment (Pretest). To provide an initial overview of student learning outcomes in class VII A.1 SMPIT Al-Ishlah Maros before treatment (Pretest) is presented in full in Appendix (D). Furthermore, based on the results of descriptive analysis of student mathematics learning outcomes before treatment (Pretest) in Table 1.

**Table 1.**Statistics of Students' Mathematics Learning Outcomes before being given Treatment (Pretest) and after being given Treatment (Posttest)

| **Statistics** | **Pretest** | Posttest |
|---|---|---|
| Number of samples | 29 | 29 |
| Ideal Score | 100 | 100 |
| Maximum Score | 48 | 100 |
| Minimum Score | 9 | 76 |
| Average Score | 22.65 | 88.65 |
| Standard Deviation | 10.38 | 7.16 |

Based on Table 1 above, it is obtained that from 29 students, the average pretest score before treatment was 22.65, with a standard deviation of 10.38. The average posttest score was 88.65, with a standard deviation of 7.16. The highest pretest score obtained by students was 48 and the lowest score was 9, while the highest posttest score was 100 and the lowest score was 48.

**Table 2**Frequency Distribution and Percentage of Mathematics Learning Outcomes Values through
Cooperative learning model type Think Pair Share (TPS)

| Score Interval | Category | Frequency | |
|---|---|---|---|
| | | pretest | posttest |
| 0 – 54 | Very Low | 29 | 0 |
| 55 - 64 | Low | 0 | 0 |
| 65 – 79 | Currently | 0 | 1 |
| 80 – 89 | Tall | 0 | 14 |
| 90 - 100 | Very High | 0 | 14 |
| Amount | | 29 | 29 |

Based on table 2 above, it can be concluded that the frequency distribution and percentage of mathematics learning outcomes for the pretest and posttest show that in the very low category from 29 students (100%) decreased to none, in the low category there were none, in the medium category from none increased to 1 student (3.44%), in the high category from none to 14 students (48.27%), and in the very high category from none to 14 students (48.27%).

**Table 3.**Description of Students' Mathematics Learning Outcomes

| Mark | Category | Frequency | |
|---|---|---|---|
| | | *Pretest* | *Posttest* |
| 0 – 69 | Not Completed | 29 | 0 |
| 70 – 100 | Completed | 0 | 29 |
| Amount | | 29 | 29 |

Based on the Minimum Completion Criteria (KKM) used at SMPIT Al-Ishlah Maros, which is 70. This means that students are said to have completed learning if their learning outcomes have reached a minimum of 70 (≥70) and classical completeness is achieved 75% of students have achieved a score of ≥70. Based on Table 4.3, it shows that 0 out of 29 students or 0% did not complete and 29 students or all students or 100% of students have achieved learning completeness.

**Table 4.**Descriptive Study of Improvement in Students' Mathematics Learning Outcomes after Implementing the Model Cooperative Learning Type Think Pair Share (TPS)

| Gain Value | Category | Frequency | Percentage (%) |
|---|---|---|---|
| $g < 0.3$ | Low | 0 | 0 |
| $0.3 \leq g < 0.7$ | Currently | 1 | 3.45 |
| $g \geq 0.7$ | Tall | 28 | 96.55 |
| Amount | | 29 | 100 |

Based on table 4 above, the description of the improvement in students' mathematics learning outcomes after the implementation of the Think Pair Share (TPS) cooperative learning model shows that 28 out of 29 students or 96.55% whose learning outcomes are in the high category, 1 out of 29 students or 3.45% whose learning outcomes are in the medium category, and no students whose learning outcomes are in the low category. If the average normalized gain of students of 0.85 is converted into the 3 categories above, then the average normalized gain of students is in the interval $g \geq 0.70$. Thus, the improvement in mathematics learning outcomes of class VII students of SMPIT Al-Ishlah Maros after the implementation of the Think Pair Share (TPS) cooperative learning model is in the high category.

In general, most students were actively involved in the learning process. This was demonstrated by an average student activity of 84.10%, which met the criteria for student activity effectiveness, which was at least 75%. Therefore, the Think Pair Share (TPS) cooperative learning model was effective in terms of student activity indicators.

In general, mathematics learning through the Think Pair Share cooperative learning model received a positive response from students. This is indicated by an average percentage of positive

student responses of 96.55% and negative student responses of 3.45%. In accordance with the indicator of student response effectiveness, which is at least 70%, it can be concluded that the Think Pair Share (TPS) cooperative learning model is effective in terms of student response indicators.

## DISCUSSION

After going through the Think Pair Share (TPS) cooperative learning model, the results of the analysis of student learning outcomes data showed that 29 students or 100% achieved individual mastery and no students or 0% did not achieve individual mastery. This means that the Think Pair Share cooperative learning model is effective because it has met the classical mastery criteria.

After observing student activities in mathematics learning through the application of the cooperative type model*Think Pair Share*(TPS)in class VII SMPIT Al-Ishlah Maros shows that the percentage of student activity in learning mathematics through the cooperative learning model type Think Pair Share (TPS) is 84.10%. This is because students are encouraged to learn actively through their own active involvement with the concepts, the teacher encourages students to have experiences that allow them to discover, and all students have the same responsibility in their groups. So, it can be concluded that most students have actively participated in the mathematics learning process and have met the criteria for student activity.

Based on the results of the analysisThe results of the analysis showed that 96.55% of students responded positively to the implementation of mathematics learning through the implementation of the Think Pair Share (TPS) cooperative learning model. The results of this analysis indicate that learning through the Think Pair Share (TPS) cooperative learning model has achieved the effectiveness indicator used as a benchmark, where a positive response of at least 70% of all respondents.

The descriptive analysis results were found to support the theory presented in the literature review. Therefore, it can be concluded that the Think Pair Share (TPS) cooperative learning model is effective in mathematics learning for seventh-grade students at SMPIT Al-Ishlah Maros.

## CONCLUSION

Based onresearch results, it can be concluded as follows.

1. Effective mathematics learning through the cooperative learning model of the Think Pair Share (TPS) type for class VII students of SMPIT AL-ISHLAH MAROS, which is reviewed from:
   a. The mathematics learning outcomes of seventh grade students of SMPIT AL-ISHLAH MAROS after participating in the Think Pair Share (TPS) cooperative learning model had an average score of 88.65. From this study, 100% of students achieved the Minimum Completion Criteria (KKM). And there was an increase in mathematics learning outcomes after being taught using the Think Pair Share (TPS) cooperative learning model for students of 0.85, so the average normalized gain was in the interval $g \geq 0.70$.

b. Student activities during mathematics learning have met the effectiveness criteria with an average of 84.10% (75%).≥
c. Students' positive response to mathematics learning through the TPS type cooperative learning modelhas met the effectiveness criteria with an average of 96.55%(70%).≥

2. There was an increase in mathematics learning outcomes in class VII students of SMPIT Al-Ishlah Maros after being given mathematics learning through the Think Pair Share (TPS) type cooperative learning model.

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