

THE IMPLEMENTATION OF THINK PAIR SHARE TYPE IN LEARNING COMPILATION MATERIAL TO IMPROVE STUDENTS' COOPERATION

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ABSTRACT

Students' cooperation is still low. Students prefer to work individually in the learning process. The objective of this research is to improve students' cooperation by implementing cooperative style 'Think Pair Share' Class VII at Islamic Junior High School (MTS) Muhammadiyah Karangajen First Semester in Academic Year 2017/2018. This is a classroom action research in which took Students' Class VII A at MTS Muhammadiyah Karangajen as the object to implement cooperative learning style Think Pair share in learning mathematics. This research was conducted in two cycles, and each cycle had two meetings. The data collecting technique used observation and interview. The Data was analyzed by using qualitative and quantitative descriptive analysis. This research showed that cooperative learning style 'Think Pair Share' could improve the students' cooperation in Class VII A at MTs Muhammadiyah Karangajen First Semester in Academic Year 2017/2018. It is proved in the result of observation in each cycle. The first cycle showed 42% (Average), and the second cycle increased to be 74% (High). Moreover, students' interviewing showed students' cooperative improvement from the first cycle to the second cycle.

Keywords: Cooperation, Cooperative Learning, Think Pair Share

INTRODUCTION

Education is a necessity for humans, both as individual and social beings. In the life of a nation, education plays a vital role in guaranteeing the nation's life. One of them through formal education is education held at school.

Mathematics is the science of logical thought patterns and problems related to numbers, symbols, and interconnected concepts. It helps humans understand and mastering social, economic, and natural problems. Mathematics emphasizes more activities in the world of the reason (reasoning), rather than emphasizing the results of experiments or the results of mathematical observations formed because of human thoughts, which are related to ideas, processes, and reasoning (Russeffendi ET, 1980: 148), with the existence of these mathematical quotations, interprets that science which covers various aspects of ideology to emphasize the development of humanity itself.

School mathematics, according to Suherman (2003: 55), is mathematics taught in schools, namely mathematics taught in Primary Education (SD and SLTP) and Secondary Education (SLTA and SMK). Ibrahim and Suparni (2008: 34) state that in school mathematics in Indonesia, five main things become the main fields of study, namely arithmetic, algebra, geometry, trigonometry, and data, and probability analysis. The five main points are interrelated with one another. Therefore, the provision of mathematics material in schools must be made sequentially to increase students' understanding of mathematics. In everyday life, mathematics is essential because mathematics is a basic science vital role in human life. Realizing the importance of learning mathematics, mathematics learning must be improved to be adequately achieved. The achievement of the objectives of learning mathematics can be seen from the results of learning mathematics. The purpose of this learning will achieve maximum results if learning runs effectively, which can actively involve all students (Ahmad Susanto, 2013: 187).

Based on these conditions, a teacher must choose and apply a suitable learning model to improve student collaboration so that learning mathematics can be carried out correctly. One learning model widely used to enhance students' active learning role is the cooperative learning model. Cooperative learning refers to various teaching methods where students work in small groups to learn. In cooperative classes, students are expected to help each other, discuss each other, and argue to hone the knowledge

mastered at that time and close the gap in their respective understanding. According to Isjoni (2010: 140), Cooperative learning is one form of learning based on constructivist ideology. Cooperative learning is a learning strategy with some students as small groups with different levels of ability.

During this time in the learning process, the teacher is always actively explaining the learning material while students only passively listen. How to overcome this can use innovations in learning. One of them is by applying the Think Pair Share type of cooperative learning model. The Think Pair Share cooperative learning model is expected to overcome student cooperation problems in the school. Because basically, the Think Pair Share type of cooperative learning model is a group-based learning model. The group in question is paired to allow students to collaborate more quickly because they consist of only two members. Based on this understanding, several attempts were made to learn through the Cooperative Learning Model Type of TPS (Think Pair Share). According to Aris Shoimin (2014: 208-209): Think pair share is a cooperative learning model that gives students time to think and respond and help one another. The stages of implementing the Think Pair Share cooperative learning model are as follows:

1. The teacher provides questions for students to think about.
2. The teacher allows students to think about the answer.
3. The teacher asks the students to pair up.
4. The teacher allows the couples to discuss.
5. The results of the discussion of the pair are discussed with the whole class pair.
6. It is expected that questions and answers on the activity.

Cooperation in the learning process is one of the important things in the learning process. Collaboration is needed to learn mathematics because collaboration can make students active and comfortable to solve various learning problems. However, in reality, learning is still lacking in implementing student-to-student collaboration. According to Darmiyati (2012: 128), the ability of cooperation can be seen from several aspects, namely: How to submit ideas or opinions, how to ask questions, how to submit answers, how to respond to the opinions of others. According to Yamin and Ansari (2009: 14), students have differences with each other that are different in interests, abilities of pleasure, experience, and ways of learning and collaboration. Also, in teaching and learning activities in the school environment often encountered several problems. Lack of student participation in learning mathematics is an obstacle to establishing cooperation.

Based on interviews with some VIIA MTs Muhammadiyah Karangkajen students on July 1, 2017, students consider mathematics a problematic subject, unable to properly understand the teacher's lessons. They feel more like working individually in learning activities. This is indicated by the group activities that are not running. There has not been a good collaboration between group members, thus causing low student cooperation.

Based on the description above, it can be obtained the problem formulation, namely: can applying the Think Pair Share type of cooperative learning model to the learning material of the set improve student cooperation in the VIIA MTs Muhammadiyah Karangkajen class in the odd semester of the academic year 2017/2018?

METHODS

This type of research is a classroom action research (CAR) or Classroom Action Research, research conducted by teachers and collaborating with researchers in the classroom using designing, implementing collaborative action-reflection to improve or improve the quality of a learning process. According to Arikunto (2010: 4), Classroom Action Research is an activity raised to improve the classroom learning situation, which is the core of educational activities. The researcher collaborated with the mathematics teacher at VIIA MTs Muhammadiyah Karangkajen. This study's design uses a class action research design that refers to Kemmis and Mc Taggart's action process. One cycle consists of four steps, namely (1) planning, (2) implementation, (3) observation, (4) reflection (Suharsimi Arikunto, 2014: 16)

The study was conducted at MTs Muhammadiyah Karangajen when the research will be conducted in the odd semester of the academic year 2017/2018. This research was conducted according to school mathematics hours. The number of students in class VIIA is 24 students, and all are female. This study's setting is the VIIA grade students of MTs Muhammadiyah Karangajen 2017/2018 and student collaboration by applying the Think Pair Share (TPS) cooperative learning model. Research procedure:

1. Planning. After learning about the school's problems through interviews with subject educators, and an agreement was reached between the researcher and a mathematics teacher in class VII A at MTs Muhammadiyah Karangajen, the researcher began to compile an action plan. The planning activities include the preparation of Learning Implementation Plans (RPP), Group Activity Sheets (LKK), observation sheets, interview guidelines, and cycle tests.
2. Implementation. The things done at the implementation stage of the action are implementing the previous researcher's plan at the planning stage. Educators carry out learning activities by the lesson plan, while researchers and observers observe the learning activities. The action taken is flexible in the changes that occur in class. These changes are noted in the observation sheet.
3. Observations. The observation phase is carried out together with the implementation phase of the classroom activities. The observation activities are carried out by the researcher and the observer using the observation sheet that has been made to determine the students' ability to collaborate during the learning process.
4. Reflection. At this stage, the researcher collects and analyzes the data obtained during the observation, which includes data from the observation sheet. The implementation of this reflection can be done through discussion between researchers and mathematics teachers. At this stage, the results are obtained at the observation stage, and the results are identified according to the problem. Then the problem will be explored in increasing the ability of students to collaborate. If the targets have not been met, and the goals have not been achieved, the research will continue to Cycle II. Deficiencies that occur in cycle I will be corrected in Cycle II.

Data collection techniques in this study are to use observation, interviews, and triangulation. Data collection instruments in this study were using observation sheets, questionnaire guidelines, and interview guidelines. Analysis of observation sheet data. Analysis of interview data. Test. The interviews' results were analyzed descriptively qualitatively to complete the observations' results. Data obtained about student collaboration in learning mathematics more accurately. Cycle test results are analyzed quantitatively to complement and strengthen research results. Data obtained from the increased collaboration are strengthened by increasing test results per cycle.

By the characteristics of classroom action research, classroom research success indicators are marked by changes towards improvement, both related to the implementation of learning and learning outcomes. This study to determine the success of the action is characterized by an increase in students' collaborative abilities for each indicator, namely a minimum percentage of students $\geq 60\%$ (in the high / very high category).

RESULTS AND DISCUSSION

This class action research was carried out in 2 cycles. Each cycle consisted of 4 stages, namely, planning, implementing, observing, and reflecting. The results of classroom action research consisting of two cycles, namely cycle I and cycle II using the TPS type of cooperative learning model are as follows:

In the first cycle of meeting 1, student cooperation was not optimal, and most students instead chatted with other group friends. Besides that, they tend to work on LKK individually, not cooperating. While at meeting two, there was a slight increase in terms of their collaboration. Students begin to discuss with their partner groups because observers always encourage them to return to discussions when working on LKK.

While the first meeting of student cooperation was optimal in cycle II, it just had to be increased again at the next meeting. They are already active in working together in groups of couples and between

partners. Whereas at meeting two, the learning process was optimal, and students' collaboration at this meeting also increased from previous learning. As seen when working on LKK questions, they always work together with their partner friends. At class discussion forums, they are already very active.

Based on the student collaboration observation sheet, the percentage of students' learning motivation in TPS type of cooperative learning is as in Table 1.

Table 1. Analysis of Observation Results of Collaboration of Students Cycle I and II

No	Indicator	Percentage		Information
		Cycle I	Cycle II	
1	Students express ideas/opinions to their partners	29,5% (Low)	73% (High)	Increase
2	Students ask questions to their partners	52% (Low)	77% (High)	Increase
3	Students deliver answers to their partners	56% (Low)	73% (High)	Increase
4	Students submit their opinion responses to their partners	46% (Medium)	73% (High)	Increase
5	Students convey ideas/opinions to other pairs	39,5% (Low)	69% (High)	Increase
6	Students ask questions to other pairs	35,5% (Low)	79% (High)	Increase
7	Students convey answers to other pairs	35,5% (Low)	77% (High)	Increase
8	Students submit their opinion responses to other pairs	43,5% (normal)	71% (High)	Increase

Based on the student collaboration observation sheet results, student collaboration has increased after implementing the TPS type learning model with an average criterion of the cycle I 42% and cycle II increasing to 74%. More details will be presented in the following as in Figure 1.

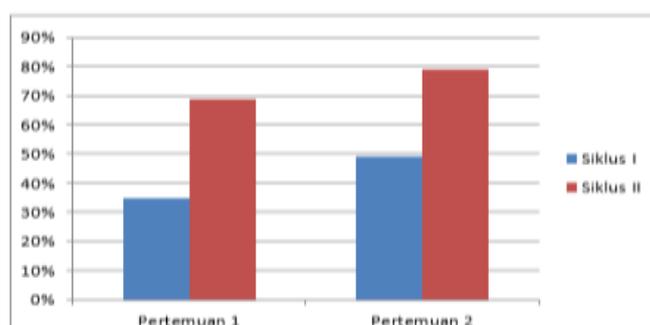


Figure I. Percentage Graph Analysis Results of Student Cooperation Observation Sheet

In this study and using observational data, researchers also used data in the form of interviews conducted both with teachers and students. Interviews were conducted in each cycle. The results of interviews conducted with teachers can be concluded as follows:

1. Cycle I

- Some students have not shown an interest in learning by applying the TPS type of cooperative learning model.
- Student cooperation has not been evident after implementing the TPS type of cooperative learning model. Some students still choose to work on LKK individually, but some students have begun to collaborate.
- During the learning process with the TPS type of cooperative learning model, several obstacles, including the students still busy chatting instead of discussing, not paying attention when

explaining the material, and not seriously doing the researcher's assignment. The way to overcome this is by approaching the student and asking about the student's difficulties during the learning process.

- d. The application of the type of TPS cooperative learning model is by the characteristics of students.
- e. TPS type cooperative learning models can be applied to further learning, but only certain materials.

2. Cycle II

- a. Students have shown an interest in learning by applying the TPS type of cooperative learning model.
- b. After implementing the TPS type cooperative learning model, student cooperation has been seen because some students have chosen to work on LKK with partner collaboration. However, some students have not been able to work together.
- c. In cycle II, compared to cycle I, only had a few obstacles. Namely, there were at least students who still did not want to cooperate. Efforts to overcome these obstacles can be made by giving rebukes continuously to be interested in cooperation.
- d. The application of the type of TPS cooperative learning model is by the characteristics of students.
- e. TPS type cooperative learning models can be applied to further learning, but only certain materials.

Based on the first cycle test results and the second cycle test, an increase in student learning outcomes in class VIIA after implementing the type of cooperative learning model TPS with an average value of 66.91 and the second cycle increased to 77.29. The results of the Cycle Test, in this case, are only complementary.

CONCLUSION

From the results of the study, it can be concluded that mathematics learning by applying the TPS type of cooperative learning model can improve the cooperation of students of the VIIA MTs class at Muhammadiyah Karangjajen in the academic year 2017/2018. This is indicated by increased student collaboration observations' average results, namely the first cycle, 42%, and the second cycle percentage, 74%.

REFERENCES

- Arikunto, Suharsimi. 2014. *Penelitian Tindakan Kelas*. Jakarta: PT Bumi Aksara.
- Arikunto. 2010. *Prosedur Penelitian: Suatu Pendekatan Praktek*. Jakarta: Rineka Cipta.
- Aris Shoimin. 2014. *68 Model Pembelajaran Inovatif dalam Kurikulum 2013*. Yogyakarta: Ar-Ruzz Media.
- Darmiyati Zuchdi,dkk. 2012. *Pendidikan Karakter Konsep Dasar dan Implementasi di Perguruan Tinggi*. Yogyakarta: UNY Press.
- ErmanSuherman,dkk. 2003. *Strategi Pembelajaran Matematika Kontemporer*. Bandung: Universitas Pendidikan Indonesia.
- Ibrahim, Suparni. 2008. *Startegi Pembelajaran Matematika*. Yogyakarta: Bidang Akademik UIN Sunan Kalijaga.
- Isjoni. 2010. *Pembelajaran Kooperatif Meningkatkan Kecerdasan Komunikasi Peserta Didik*. Yogyakarta: Pustaka Pelajar.
- Yamin, Ansari. 2009. *Taktik Mengembangkan Kemampuan Individual Siswa*. Jakarta: Gaung Persada press.