EFFORTS TO IMPROVE MATHEMATICAL LEARNING ACTIVITIES USING THE THINK PAIR SHARE (TPS) COOPERATIVE LEARNING MODEL IN CLASS VII

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ABSTRACT

Student learning activities in mathematics are still not good. This is indicated by the small number of students who are actively involved in the learning process, for example, when the teacher asks questions. This study aims to improve mathematics learning activities using cooperative learning models Think Pair Share in class VII students of State Junor High School (SMP Negeri) 1 Imogiri Bantul 2018/2019 academic year. This study is a classroom action research conducted in even semester of class VII B. This research is conducted in two cycles, where each cycle consists of action planning, implementation, observation, and reflection. Data collection techniques are in the form of observations, interviews, and field notes. The research instruments used are observation sheets, interview guidelines, and field notes. While the research instrument test conducted is the validity test. The data analysis technique uses a descriptive qualitative technique. The results showed that Think Pair Share's cooperative learning model could improve students' mathematics learning activities in class VII B in SMP Negeri 1 Imogiri Bantul. This is evidenced by the results of the observation sheet in each cycle that increased significantly. The average percentage of student activities in cycle 1 is 57,48% with satisfactory criteria. After that, the percentage in the second cycle increased to around 74,92%, indicating good criteria.

Keywords: Classroom Action Research, Learning Activity, Think Pair Share.

INTRODUCTION

Mathematics is one of the basic sciences to train critical thinking, creative, logical, and systematic. So that mastery of mathematics is very important for the knowledge needed in everyday life. In learning mathematics, students assume that mathematics is a tedious and challenging subject. So that students become lazy, bored, and not interested in taking mathematics lessons, and ultimately affect the learning outcomes. Based on the results of researchers' observations on October 23, 2018, it shows that the teacher explains the material with a direct learning model during the learning process. Students learn more to listen to the teacher's explanation. Students tend to focus less on learning in learning that takes place, and students pay less attention to the teacher's explanation. So students do not play an active role in ongoing learning. When the teacher gives questions, students tend not to be able to answer. Learning activities are still shallow. Based on the results of interviews with students, students assume that mathematics is a tricky subject. Students feel ashamed to express their opinions and ask the teacher or friends. The low completeness of learning mathematics results can be shown from the Mid-Semester Assessment 2018/2019 school year results.

Student mathematics learning outcomes can be maximized by the learning process well. For this reason, teachers need to pay attention to the role of all students in learning activities. Therefore, teachers must create interesting teaching and learning conditions, provide students with opportunities to be more active in building knowledge, and increase student learning activities. There are various kinds of learning models, one of which is a cooperative learning model. There are many types of cooperative learning, one of which is Think Pair Share (TPS). Frank Lyman developed this TPS. This learning requires discussion that needs to be done in the settings of the whole group. Think Pair Share has a straightforward procedure to give students more time to think, answer, and help one another (Majid, 2014: 191).

METHODS

This research activity took place at SMP 1 Imogiri, Bantul Regency Academic Year 2018/2019. The activities carried out in the framework of this final project research took the research setting of class VII B with 32 students by applying the Think Pair Share type of cooperative learning model to enhance students' mathematics learning activities. This Classroom Action Research (CAR) includes four steps: Action Design, Action Implementation, Observation, Reflection (Arikunto, 2014: 17-20). Classroom action research procedures were carried out in two cycles—data collection techniques: observation, interviews, and field notes. Data collection instruments used were: (1). The observation sheet contains notes describing how students' learning activities are carried out during class (2). Student interview guidelines as guidelines when interviewing students to obtain data on student learning activities, (3). Field notes contain information about student learning activities and the process of learning activities implemented by the teacher. Analysis of the data used includes observation data analysis and interview results where the interview results are reduced and triangulated. Indicators of success of this study if the learning activities are obtained with good minimal criteria.

RESULTS AND DISCUSSION

Learning activities consist of two cycles. It was done in cycle I in two meetings, and cycle II was done in two meetings. This is done, hoping that the actions taken in learning will result in minimal suitable learning activities. Every action is carried out by applying a Think Pair Share type of cooperative learning model. At each meeting, an action is taken to correct the deficiencies that existed in the previous meeting, so that the action leads to increasing student learning activities. During the learning process, students' learning activities have been observed. The results of student learning activities for two cycles obtained the following results.

Table 1. Increased Student Learning Activities in Cycle I and Cycle II

No	Aspects / Indicators	Percentage		Information
		Cycle I	Cycle II	
1.	Enthusiastic students participate in learning.	68,35%	81,24%	Increase
2.	Interaction between students and teachers	55,46%	75,38%	Increase
3.	Interaction between students	55,85%	74,99%	Increase
4.	Group collaboration	55,85%	80,85%	Increase
5.	Student activities in groups	48,43%	67,57%	Increase
6.	Student participation in concluding the results of the discussion.	51,56%	69,52%	Increase
Average		**57,48%**	**74,92%**	**Increase**

From the data of the results of the learning activities above, if critiqued by using table 2, the student learning activities obtained in the first cycle of the criteria are suitable and sufficient. In the second cycle, the criteria are good and very good.

Table 2. P-Value Criteria

No	Percentage	Category
1.	$80\% < P \leq 100\%$	Very good
2.	$60\% < P \leq 80\%$	Well
3.	$40\% < P \leq 60\%$	Enough
4.	$20\% < P \leq 40\%$	Less
5.	$0\% < P \leq 20\%$	Very less

Source : Modifikasi dari Arikunto, Suharsimini dan Cepi Safrudin A.J, (2009:35)

Before starting learning, the teacher has prepared by compiling: Curriculum analysis, Learning Implementation Plan (RPP), Student Worksheet (LKS), observation sheet, and student interview guidelines. In the implementation of learning, teachers perceive learning with the surrounding environment. The teacher divides the groups and tells students to sit according to their groups. The teacher implements learning according to the steps of the Think Pair Share type of cooperative learning model. The implementation of learning has received a good response from students. Based on the interview results, students say that they can be actively involved in implementing cooperative learning models Think Pair Share type and work together in groups. The results of observations in the first cycle obtained results that some students are less enthusiastic in following the lessons, the questions and answers between students and teachers are sufficient, students tend not to ask friends in a group, some students also do not do group work and do not express their opinions, and most students do not conclude the results of the discussion. Data from student interviews have strengthened the results of observation. Some students are still confused with the Think Pair Share type of cooperative learning models because they are not used to it, but feel happy with the learning methods used because they can work together in groups and exchange ideas with classmates.

Before proceeding to the second cycle phase, the first cycle of the teacher is reflected, and the results are obtained: The teacher provides guidance, motivation to improve students in following further learning; give students the direction to ask when having difficulties and dare to answer questions; give direction to students in doing group work, must do question and answer between groups to discuss learning; motivate students to do assignments by collaborating and holding assignments for each student; encourage students to dare to express opinions and explain their opinions; encourage students to be enthusiastic in participating in learning to conclude the results of the discussion.

Deficiencies found in cycle I have been corrected in cycle II. The planning stage, in the planning cycle II activities carried out to make: lesson plans, worksheets, observation sheets, and student interview guidelines. The action phase provides motivation and guidance to each group that has difficulty in completing the worksheet. Students who ask researchers do not answer directly when completing student worksheets, but researchers ask students to ask friends in their groups first. If in one group of students, students can not only provide critical questions, so students better understand. At the end of learning, students always present their work results until with a quarter group. The learning implementation still uses the Think Pair Share type of cooperative learning model.

From the observations, there has been an increase in student learning activities. Students have begun to ask the teacher if there is a subject matter that is not yet understood. Students have also asked their groupmates. Students are excited when students are given time to discuss the results of their thinking as a group after thinking individually; they are grouped and help each other if they encounter problems. After that, students discuss with each other classmates and complement each other's opinions. So that teamwork can be seen. The classroom atmosphere also looks calmer compared to meetings in the first cycle. Learning activities run well because students are getting used to the Think Pair Share type of cooperative learning model.

The reflection from the implementation in this second cycle is that students' activities in learning mathematics using cooperative learning models Think Pair Share types have increased. Some students still tend not to express their opinions out of shame. Improved student learning activities can be presented in the following graphical form:

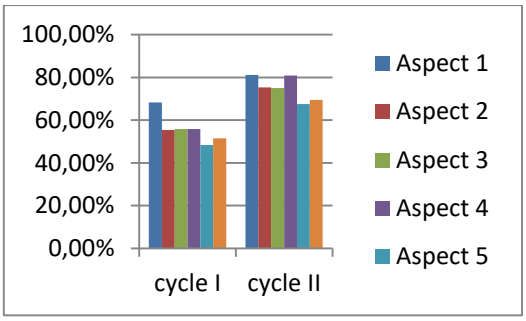

Figure I. Increased student learning activities

From the graph above, it can be seen that indicators of student learning activities have increased. From the results of the study, it can be said that the application of Think Pair Share type of cooperative learning models can increase student learning activities on comparative material.

CONCLUSION

Based on the study results, it can be concluded that learning mathematics using cooperative learning models Think Pair Share (TPS) can increase mathematics learning activities for seventh-grade students of the even semester of SMP Negeri 1 Imogiri Bantul Regency in the 2018/2019 school year. This can be shown from the results of student activity observation sheets. In the first cycle, the average percentage of student activities amounted to 57.48% with sufficient criteria and increased to 74.93% in the second cycle with good criteria.

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