ENHANCEMENT VERBAL ABILITY OF STUDENTS ON MATHEMATICS LEARNING USING GROUP LEARNING MODELS OF STUDENTS CLASS VIII IN MTs AL MU'MIN

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ABSTRACT

The verbal ability of grade VIII students of MTs Al Mu'min Temanggung Islamic Junior High School Academic Year 2017/2018 on learning mathematics was still lacking. This research aimed to increase students' verbal ability on mathematics learning using group learning models of students class VIII in MTs Al Mu'min Temanggung on even semester in 2017/2018. This research is a Classroom Action Research. The setting use class VIII-A with 30 students. The research was conducted two cycles by using group learning models. The method of data collection using observation, interview, and documentation. The instrument research using observation sheet and interview guidelines. The instrument analyzes using content validity. The analysis used in the research is a qualitative descriptive analysis. This research showed that learning by using group learning models can increase students' verbal ability to learn mathematics in class VIII-A of MTs Al Mu'min Temanggung Islamic Junior High School Academic Year 2017/2018. These things were proven by observing the student's verbal ability to learning in every cycle has increased. The average percentage of observations resulting from students' verbal ability on the first cycle was 43.33% with enough criteria, and on-cycle II, it increases to 62.33% with good criteria. The results of interviews with students showed a positive response to the student's verbal ability. **Keywords:** Classroom Action Research(CAR), Group Learning Models.

INTRODUCTION

Education is an attempt to provide specific knowledge, insights, skills, and expertise to individuals to develop their talents and personalities with human education to develop themselves to face any changes that occur due to advances in science and technology. Therefore, education needs to get attention and better handle various issues relating to the quantity, quality, and relevance. In general, education is carried out for positive and structural purposes. Its format and implementation are directed to guide, foster human life. Humans are naturally gifted with necessary abilities that are spiritual and physical. With this potential, humans can maintain life and prosperity. When observing at MTs Al Mu'Min, in the classroom the researcher observed students during the teaching and learning process in class, that when learning took place, most of the students tended to ignore or not pay attention to the material taught by the teacher, when learning took place rarely there were questions from students to teachers about teaching material, students also rarely respond when there are friends who work on questions and explain the questions on the board.

Also, most students tend to chat when learning takes place. Thus, students' verbal ability is not in learning mathematics but for other things, students are less participating, and students are also not actively involved in learning mathematics. Thus it needs a variation s,o that students are interested in the following mathematics through group learning models. A learning process requires a method that involves students actively in teaching and learning activities to improve students' verbal abilities in learning mathematics and mathematics learning outcomes. One learning model that involves students actively. According to Ngalimun (2016: 27-28), in learning a specific material (goal/competency), no one learning model is better than other learning models. Each learning model must be adapted to a more suitable concept and integrated with other learning models to improve student learning outcomes. There are several types of learning models, including group learning. Group learning is carried out in a group process where the members are interconnected and achieve a common goal (Oemar Hamalik, 2009: 154). According to Slavin (2008: 10), group learning makes students work together in learning and is responsible for their groups to learn equally. In group learning, students can also share abilities, help each other learn. In group learning, all members can express their opinions. For this reason, good interaction within the group is needed, along with giving and receiving answers.

A study related to this research is a study conducted by Prasetyo Dwi (2011), showing an increase in mathematics learning outcomes in algebra material through group learning models. Based on the research results, Sriyanto Agus (2008) showed that learning outcomes increased after applying the group discussion model. The purpose of this study was to improve students' verbal abilities in learning mathematics by using a group learning model in class VIII-A class VIII-A MTs Al Mu'min Temanggung Even Semester 2017/2018 Academic Year on the subject Pythagoras.

METHODS

This type of research is Classroom Action Research (CAR). The research design used is as follows:



Figure 1. Classroom Action Research Design

(Arikunto, Suharsimi, 2012:16)

This class action research was carried out in class VIII-A MTs Al Mu'min Temanggung Even Semester 2017/2018 Academic Year by adjusting class hours in the class. This study's subjects were class VII-A students at MTs Al Mu'min Temanggung Even Semester 2017/2018 Academic Year. The number of class VIII-A students is 30 male students. The object examined in this study was applying the group learning model in mathematics learning to improve verbal skills in students of class VIII-A MTs Al Mu'min Temanggung Even Semester 2017/2018 Academic Year. Classroom action research procedures were carried out in two cycles. There are 4 data collection techniques: observation method, interview method, test method, and triangulation. The instruments used for data collection purposes in this study were: observation sheets, interview guidelines, and test questions. This observation sheet consists of several items used to evaluate all learning actions to fit the research objectives. Interview guidelines are arranged to find out things that are not observed at the time of observation and know students' responses regarding implementing mathematics learning. Test questions contain questions in the form of descriptions that students work on individually and are given at the end of each cycle. The data analysis technique used is the analysis of the data from observations and analysis of interview results. This study's success is that students' learning activities in learning mathematics increases, and the percentage of student learning activities reaches the minimum criteria of good value (P> 60%).

RESULTS AND DISCUSSION

In this study, the researcher acts as a mathematics teacher in class VIII-A and is assisted by a UAD student who acts as an observer. Researchers carry out this research by the steps in the CSP. The following is a description of its activities:

| Table 1. Schedule of Wathematics Class VIII | | |
|---|---------------|--|
| Day | Time | |
| Rabu, 21 March 2018 | 07.00 - 09.20 | |
| Rabu, 28 March 2018 | 07.00 - 09.20 | |

Table 1. Schedule of Mathematics Class VIII

1. Cycle I

a. Planning

In the planning stage, the researcher begins the research by determining the material for even semester VIII-A that will be the research object with the mathematics subject teacher concerned. The activities carried out in this planning stage include drafting the design to be carried out, namely: (1) preparing learning tools, including the Learning Implementation Plan and Student Activity Sheets. The lesson plans are prepared by researchers and consulted with classroom mathematics teachers VIII-A. The RPP compiled consists of one RPP for two meetings. Researchers compile student Worksheets then consulted with mathematics teachers. (2) preparation of research instruments, including observation sheets, student interview guidelines, group divisions, and tests I. Observation sheets are prepared, which are observation sheets of students 'oral abilities used to observe students' oral abilities. The observation sheet of students' oral abilities contains indicators of students' oral abilities observed during the learning process. Interview guidelines are prepared to make it easier to find out responses to the implementation of learning. The questions raised by students were six questions. In this cycle, six groups are formed which consist of 5 members

b. Implementation

At this stage, researchers carry out actions by the lesson plans that have been prepared by researchers and have been approved by mathematics teachers in class VIII-A. Mathematics learning is done by applying a group learning model. Learning activities are divided into initial activities, core activities, and closing activities. The stages in group learning lie in the core activities. Researchers deliver material on understanding the Pythagorean theorem and its application to triangles. Researchers begin learning by telling students to concentrate and focus when they have begun to look focused, concentrate on material delivery, explain the material, and give examples of the next activity group discussion. The researcher distributes the Student Activity Sheet. The researcher gives direction to the students in doing the LAS discussed in groups. Each group is asked to write the answers on the answer sheets provided.

After the allotted time is up, the researcher calls the group representative to present the discussion results after finishing the discussion and presentation activities before the game starts. The researcher gives direction to the students that the researcher is the speaker, so students must have the courage to ask the speaker if there are difficulties. Some students have dared to ask about material that is not yet understood, and some students want to ensure that the material understood is correct. Next, the researcher gave a game. The game progressed into two sessions, namely group sessions, and seizure sessions. Group games begin with group 1 representatives coming forward to choose the teacher's question cards and read aloud the questions that have been selected. Each group is given 2 minutes to work on each question and immediately answer. After the first group is finished, continue with the other groups in sequence. The fighting game is carried out after all groups have a turn to work on compulsory questions. The question in the game of teacher competition that reads every question. Each question that is answered successfully will get 10 points. After the game is finished, the group reads the scores for each group, and the teacher invites students to ask questions after completing the game. After the game is finished, the teacher prepares tournament questions that will be distributed to students. After the students are ready, the researcher and the observer share the tournament questions in groups.

The researcher explained the material about the Pythagorean Theorem, the researcher explained on the board. Researchers provide examples relating to the Pythagorean theorem. The next activity

is group discussion. The researcher distributes the Student Activity Sheet. The researcher gives direction to the students in doing the LAS discussed in groups. Each group is asked to write the answers on the answer sheets provided. After the allotted time is up, the researcher calls the group representative to present the discussion results. Researchers give praise to the group who have presented the results of the discussion. Researchers provide students with opportunities to ask the material being studied, namely an understanding of Pythagoras if there is unclear material.

c. Observation

Observations were made based on guidelines for observing learning activities that had been prepared by previous researchers. In the observation phase, the researcher is assisted by an observer to observe student learning activities in mathematics learning using a group learning model. There are five aspects to be observed: expressing the facts in following the lesson, asking questions to the teacher and his friend, giving advice to his friends, expressing opinions, and discussing.

d. Reflection

Based on the implementation of actions and observations in Cycle I, students can already receive learning by using a group learning model in following the learning process. The implementation is not optimal, so there is a need to reflect on the results of observations that have been made as input to determine the actions in the second cycle.

- 2. Cycle II
 - a. Planning. The learning actions are planned again as in Cycle I to correct and correct deficiencies in Cycle I.
 - b. Implementation. The action's implementation is not much different from implementing the cycle I action. Only many revisions were made based on Cycle reflection to enhance further students' oral abilities in learning mathematics.
 - c. Observation. This stage is almost the same as Cycle I's observation, but it focuses more on observing students' verbal abilities during the learning process.
 - d. Reflection. Data processing and discussion were conducted between researchers and mathematics subject teachers. This reflection will determine how much an increase in students' verbal abilities in learning mathematics.

This can be seen from the results of observations and results of student interviews that show an increase. Increasing the percentage of students' verbal abilities in learning mathematics by using a group learning model from Cycle I to Cycle II can be seen in Table 2 below:

| The observed aspect | Percentage of cycle 1 | Percentage of cycle 2 | Info. |
|--|--------------------------|--------------------------|----------|
| Present a fact | 34,44% | 56,67% | Increase |
| Asking questions to teachers and friends | 42,22% | 57,78% | Increase |
| Advise his friends | 53,33% | 73,33% | Increase |
| Express opinions | 40,00% | 60,00% | Increase |
| Have a discussion | 46,67% | 63,89% | Increase |
| Average Percentage | 43,33% | 62,33% | Increase |

Table 2. Analysis of students' verbal abilities in learning mathematics

Based on Table 2, it can be seen that all indicators have increased from Cycle I to Cycle II. In Cycle I, students' verbal ability in learning mathematics, 46.67% in the criteria is sufficient. In Cycle II, the verbal ability of students in learning mathematics increased to 62.33% in good criteria. So it can be concluded that there has been an increase and have succeeded in achieving good criteria. The results of classroom action research consisting of two cycles namely Cycle I and Cycle II in mathematics learning using group learning models showed an increase in students' verbal abilities in learning mathematics.

An increase in verbal students 'oral abilities is characterized by students more enthusiastic in learning mathematics and stud verbal' verbal abilities increase. Students can learn independently and

increase student collaboration in groups; students are more daring to respond to teachers' use of learning models during the learning process. The success of the action in Cycle I is seen in the observations of students' oral abilities. The average percentage of students' verbal abilities still meets the sufficient criteria that are 43.33%. The researcher decides to continue the action in Cycle II because it has not reached good criteria. In Cycle II, it is expected that there will be an increase and meet the criteria well. After being given Cycle II action, there was an increase and a change in the criteria, which was 62.33% included in the good criteria. Even all indicators of students' verbal ability showed good criteria. From all the above data, the learning objectives have been achieved in the second cycle, so the research is considered complete, and the results of the study indicate an increase in students' verbal abilities in learning mathematics using group learning models in class VIII, Even Semester MTs Al Mu'min Muhammadiyah Temanggung 2017 Academic Year 2018. Thus the action hypothesis is proven.

CONCLUSION

Based on the results of classroom action research using a group learning model in class VIII, even semester MTs Al Mu'min Muhammadiyah Temanggung, it can be concluded that there is an increase in students' verbal ability after using a group learning model in mathematics learning. Based on the observation sheet results, the percentage of students' verbal abilities in the first cycle was 43.33% with sufficient criteria. In cycle II, an increase in students' verbal abilities was 62.33% with good criteria.

REFERENCES

Arikunto, Suharsimi. 2006. Penelitian Tindakan Kelas. Jakarta: Bumi Aksara.

- Agus, Sriyanto. 2008. Upaya meningkatkan prestasi hasil belajar matematika dengan menggunakan metode diskusi kelompok pada siswa kelas VIII semester ganjil SMP Negeri 2 Kalasan Kabupaten Sleman Tahun Ajaran 2008/2009. Skripsi UAD
- Dwi, Prastyo. 2011. Upaya Meningkatkan Hasil Belajar Matematika Dengan Menggunakan Media Komik Dan Model Pembelajaran Kelompok Pada Siswa Kelas VIII MTsN 2 Yogyakarta Tahun Ajaran 2011/2012. Skripsi UAD

Hamalik, Oemar. 2006. Proses Belajar Mengajar. Jakarta: Bumi Aksara.

Ngalimun. 2016. Strategi dan Model Pembelajaran. Banjarmasin: Aswaja Pressindo.

Slavin, R. E. 2008. Cooperative Learning. Bandung: Nusa Media.