



Application of SQ3R Learning Method in Improving Mathematics Learning Outcomes in Quadrangular Basic Competencies Class VIIB students of MTs Alkawaddah Warahmaah Kolaka

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Abstract

The purpose of this study was to find out that the application of the SQ3R learning method can improve mathematics learning outcomes in the quadrilateral basic competencies of class VIIB students at MTs Alkawaddah Warahmah Kolaka. This research includes classroom action research (CAR) or classroom action research. The procedure of this research is planning, action implementation, observation and evaluation, and reflection. The sources of data in this study were mathematics teachers and students. The type of data obtained is quantitative data, namely student learning outcomes and qualitative data, namely observation sheets. This research was conducted in class VIIB of MTs Alkawaddah Warahmah Kolaka in the 2010/2011 academic year even semester. with the number of students 12. From the results of data analysis concluded: (1). The activity of the teacher (researcher) experienced a significant increase from cycle I to cycle II where the learning process was in accordance with what was contained in the lesson plans and observation sheets, (2). Student activities showed a significant increase where they became more active during the learning process and dared to show off their work/reports in front of the class, (3) The application of the SQ3R learning method could improve student learning outcomes for class VIIB MTs Alkawaddah Warahmah Kolaka, where the average results learning during the first cycle of 43.33 or completeness of 41.66% increased in the second cycle of 67.5 or completeness of 83.33%.

Keywords: SQ3R Learning Model, Learning Outcomes

A. Introduction

Educational Methodology is basically a conscious effort to develop the potential of students' resources by encouraging and facilitating their learning activities. In essence, education provides an environment that allows each student to develop talents, interests, and abilities optimally and intact (covering the cognitive, effective and psychomotor dimensions) of students (Syah, 2010). Therefore education needs attention from the government, community and education administrators in particular.

Mathematics is one of the main subjects in every level of education. The educational process includes the teaching process, the learning process and also the creative thinking process. The teaching process is carried out by the teacher, while the learning process is carried out by the students.

Some of the reasons for the need to learn to master mathematics that: Mathematics need to be taught to students because, 1) it is always used in everyday life, 2) all fields of study require appropriate skills, 3) are a means of communication strong, clear, and concise, 4) can be used to present information in a variety of ways, 5) improve logical thinking skills, accuracy, and spatial awareness, 6) give satisfaction to efforts to solve future problems (Syaripah, 2016).

Students' views about mathematics as a scourge are still widely encountered or Students' views about mathematics as a scourge are still widely encountered or obtained, views like this that result in students being less active and their learning outcomes are less than satisfactory. Students feel that they respond to every lesson taught, especially in mathematics as a frightening specter, this may be due to various things such as the way the teacher delivers material from the monotonous (Suryaningsih, 2010). Therefore the teacher's method also plays a role in this.

The method is the method used to implement the plans that have been prepared in real activities so that the objectives that have been prepared are achieved optimally. The method is used to realize the strategy that has been set. In learning the method plays an important role in the learning strategy (Sanjaya, 2006). With the right method so that it can affect learning outcomes. Learning outcomes are the abilities that children get after going through learning activities. Learning itself is a process of someone trying to obtain a form of behavior change that is relatively permanent (Khadijah, 2013).

One of the variables that determine student learning outcomes in participating in the mathematics learning process is the way of learning. Therefore, teaching mathematics at every level of education requires the professionalism of a mathematics teacher so that the quality of mathematics education can increase. According to (Suparni, 2016) a professional teacher is a teacher who has special abilities and expertise in the field of teaching so that he is able to carry out his duties and functions as a teacher with maximum abilities.

Based on the information obtained from the mathematics teacher, the real condition of mathematics learning achievement in the class has not yet achieved the maximum KKM results, especially in class VII B of MTs Almadawaddah Warahmaah which will be studied. Based on direct observations in class VII MTs Almadawaddah Warahmah, the authors conclude that several phenomena encountered are related to the low mastery of students on mathematics subject matter, namely the lack of students responding to the explanation given by the teacher. This is due to several facts including the lack of students' basic mathematical abilities and the methods taught by the teacher are not appropriate. The solution to solving these problems, then the right step is to change the way students learn where it is sought so that students are actively involved in the teaching and learning process and educators must have the right or appropriate method.

Applying a learning method as an alternative to improve mathematics learning outcomes. Maximizing learning activities as one of the educators' efforts by using one of the learning methods as a tool to achieve the planned learning objectives, so that all potential students can finally optimize mathematics learning outcomes (Ramlan, 2017). So to improve student learning outcomes, teachers can apply the SQ3R learning method. It is hoped that after applying the steps in the SQ3R method students can better understand the learning material and increase student learning outcomes. The SQ3R learning method was developed by Francis P. Robinson at Ohio State University, United States (Syah, 2010). Are basically concerned with understanding the main idea of the reading content or message (Tarigan, 2008), meaning that the reader is required to understand the main idea of the reading, not the entire content of the reading. With the application of this method, it is expected that students are fully involved to be able to find the material being studied and relate it to real life situations so as to encourage students to be

able to apply it in their lives. (Rahmawati, 2018) explain through group work students can compose and answer questions that are not difficult.

According to (Amir, 2014) the advantages of the SQ3R method are: 1) Students are directed to get used to thinking about reading material so that students are more active and trained to be able to make questions; 2) Students can work together in groups to exchange opinions in understanding the concept of the material presented in the text description; 3) create and motivate linkages between readers' work to get good material; 4) Learning will be more effective because all of our senses are working.

B. Methodology

This research was conducted in the even semester/school year 2010/2011 in class VIIB MTs Almadawaddah Warrahmaah Kolaka. With the research subjects as many as 13 people.

This research includes classroom action research (CAR) or classroom action research. Experts come up with research plans with different graphs, but generally there are four steps as follows:

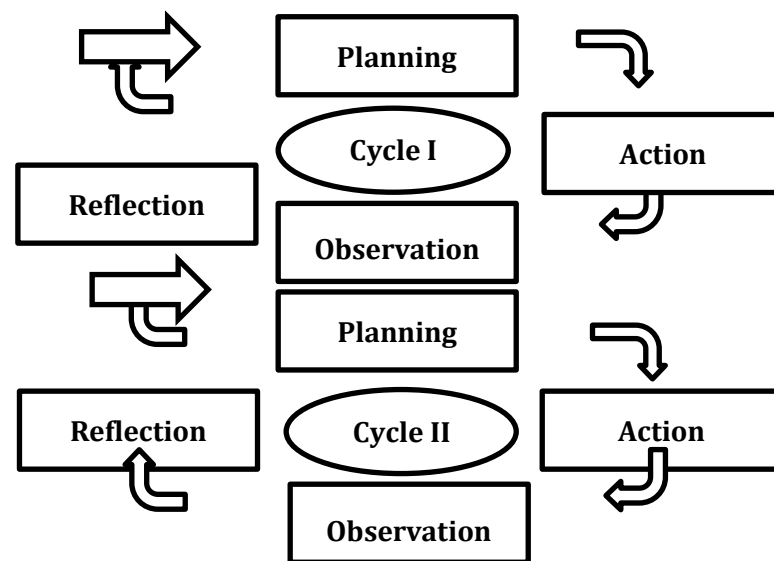


Figure 1. Classroom Action Research Flow (Arikunto, 2010)

The technique of collecting data on learning outcomes is taken by giving a test of learning outcomes to students while data about the activity of students and teachers are obtained by using observation sheets.

The types of data collection instruments are learning outcomes tests and observation sheets. Learning Outcomes Test. This test is structured in the form of an essay test. This form of essay test is given at the end of each cycle after the implementation of learning by using the application of SQ3R learning. In cycle I (consisting of 10 questions) and cycle II (consisting of 10 questions). Each question is made to test student learning outcomes against the concepts included in the basic rectangular competencies.

The observation sheet is intended as a guide for observing teacher learning and student activities during the learning process with the implementation of SQ3R learning, taking place. Observations on teacher activities are focused on the implementation of SQ3R learning in the learning process. While the observation of student activities is used to see the ability of students in learning mathematics, especially the basic rectangular competencies by using the application of SQ3R learning.

The data obtained from the observations were analyzed qualitatively and quantitatively. For quantitative analysis, descriptive analysis is used.

- Activities during the learning process were analyzed qualitatively based on the aspects that have been determined in the observation sheet.
- Scoring of Test Results in the form of test objectives
- Determine the average value of the test results by using the formula:

$$\bar{X} = \frac{\sum X_i}{N} \quad (\text{Sudjana, 2005})$$

where:

$\bar{X}$ = Average value

$\sum X_i$ = Total student test results

N = Total student test results

d. Determining the level of achievement of student learning mastery by using the formula:

$$\% \text{ finished} = \frac{\sum f_i}{N} \times 100 \%$$

Where:

$\sum f_i$ = Number of students in the learning completeness category (score ≥ 58)

N = Total student test results

B. Findings and Discussion

In the implementation of the first cycle of action, the acquisition of student learning outcomes and learning mastery has not yet reached the indicators of success of the action to be achieved, which can be seen in the results of the average acquisition of student learning outcomes of only 43.33 or learning completeness of 41.66%. The low student learning outcomes are caused by several factors, one of which is because students still feel new or are not familiar with the application of the learning methods applied by the teacher so that students feel reluctant to express their opinions and are embarrassed to ask questions, the teacher's lack of firmness during the learning process results in noise. in the classroom, the teacher forgets to provide motivation during the learning process so that students are not too active in the learning and learning process. This means that the research is continued in the implementation of the second cycle of action.

After the implementation of the second cycle of action, the average value of student learning outcomes increased to 67.5 or learning completeness of 83.33%. Likewise, the results of observations of teacher activities during the learning process have increased where each phase or stage contained in the observation sheet and lesson plans has been carried out well and maximally. In addition, student activities also increased where they became more active and enthusiastic during the learning process, both asking questions, answering questions, working on the results of investigations on the blackboard, and summarizing lessons well.

Based on the descriptions mentioned above, and by looking at the results of observations and evaluations on the implementation of the first cycle of actions and the implementation of the second cycle of actions, it can be concluded that the application of the SQ3R learning method can improve the mathematics learning outcomes of VIIB grade students of MTs Almadaddah Warrahmah Kolaka. This conclusion is also the answer to the action hypothesis.

C. Conclusion

Based on the results of observations, evaluations, and reflections in each cycle of action, it can be concluded that through the application of the SQ3R learning method it can improve students' mathematics learning outcomes in the quadrilateral basic competencies of class VIIB MTs Almadaddah Warrahmah Kolaka. This is indicated by the results of student evaluations after the first cycle of action. This increase was seen from the first cycle to the second cycle, namely 41.66% to 83.33% and an increase of 41.67%. Where the average value of students after the second cycle increased compared to the average value in the first cycle, which was 43.33 to 67.5 and had met the predetermined success indicators, namely more than 75% of students scored 60 (KKM-KD) to on.

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