

Efforts To Increase Learning Math Levels With Realistic Math Learning (Pmr) For Student Class V Min Bukit Kubu Beres

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Abstract:This study aims to improve students' mathematics learning outcomes of grade V SD MIN Bukit KubuBesitang, through Realistic Mathematics Approach. This type of research is a classroom action research (PTK). This research uses Kemmis and Mc model. Taggart. The study was conducted in two cycles. Data of research result obtained from test result of student learning, observation result during learning activity using observation sheet of teacher activity in applying Realistic Mathematics Approach, student activeness observation sheet, and documentation. Data analysis techniques used qualitative and quantitative analysis. The results showed that the results of learning mathematics students of grade V SD MIN Bukit Kubu. This is supported by the use of the Realistic Mathematical Approach which emphasizes the 8 aspects with regard to the effectiveness of the number of objects analyzed and the time for learning. Increasing the percentage of student learning outcomes for each cycle, ie on the first cycle of 65.52%, and for the second cycle of 86.21%. In addition, the average percentage of observation sheets of students' mathematics learning activity for each cycle, ie in cycle I of 42.28% and for the second cycle of 73.57%.

Keywords: Mathematics learning result, Realistic Mathematics Approach

1. Introduction

Mathematics is one of basic science, which is increasingly felt its interaction with other fields of science such as economics and technology. The role of mathematics in this interaction lies in the structure of science and equipment used. Today's mathematical sciences are still widely used in areas such as industry, insurance, economics, agriculture, and in many areas of social and engineering. Given the increasingly large role of mathematics in the coming years, many of the much-needed mathematics scholars are highly skilled, reliable, competent, and broad-minded, both within their own discipline and in other interdependent disciplines. To be a bachelor of mathematics is not easy, must be really serious in learning, in addition to learning math, we also have to study other fields of science. Thus, if you have become a mathematics scholar who in all fields can be very easy to find a job.

The word mathematics is derived from the word "mathema" in Greek which is defined as "science, science or learning." The main disciplines in mathematics are based on the needs of calculations in trade, measuring the land, and predicting events in astronomy. These three needs are generally related to the three general divisions of mathematics, namely the study of structure,

space, and change. A very general structure lesson starts in natural numbers and integers, as well as arithmetic operations, all described in basic algebra. A deeper integer characteristic is studied in number theory. The science of space begins with geometry. And the notion of change in quantities that can be calculated is a matter of course in the natural sciences and calculus. In trading very closely related to mathematics because in trading there will certainly be calculations, where the calculation is part of mathematics. Unconsciously it turns out that everybody uses mathematics in everyday life as if someone is building a house then surely that person will measure in completing his job. Therefore math is very useful once in everyday life.

One of the characteristics of mathematics is to have an abstract object that can cause many students to have difficulty in mathematics. Students' mathematics achievement both nationally and internationally has not been encouraging. In the mathematics learning of students has not been meaningful, so the students understanding about the concept is very weak. A science will be difficult to apply if it is meaningless to us. The significance of science is also a major aspect of the learning process. According to Van de Henvel-Panhuizen (2000), when children learn mathematics apart from their daily experiences, the child will quickly forget and can not apply mathematics. One of the mathematics lessons that is oriented to the mathematization of everyday experiences and applying mathematics in everyday life is realistic mathematics learning.

Process 2 learning will occur if the knowledge learned is meaningful to the learner (Freudental, 1991 in the book AriyadiWijaya, 2011: 3). Usually there are some students who consider learning mathematics should be fought tooth and nail in other words must learn extra hard. This makes math like a "monster" that must be feared and lazy to learn math. In fact, learning mathematics should be fun. One of them is by realistic mathematics learning where this learning relates and involves the surrounding environment, the real experiences experienced by the students in daily life, as well as making mathematics as a student activity. With the RME approach, students do not have to be brought into the real world, but relate to real-life situations that exist in the minds of students. So students are invited to think how to solve problems that may or often experienced by students in their daily life.

Learning is now always done in the classroom, where students are less free to move, try to vary the learning strategies related to life and the environment around the school directly, as well as using it as a source of learning. Many things we can make the source of learning mathematics, the important choose the appropriate topics such as measuring tree height, measure the width of the tree and so forth. Students are better to learn a little bit of material until students understand, understand the material rather than a lot of material but the students do not understand it. Despite the demands of achieving the curriculum to absorbency but with limited allocation. So the teacher should take the courage to finish the students in learning before to the next material because it is intended to avoid misunderstanding of students in learning mathematics. Most students, learning mathematics is a heavy burden and boring, so students are less motivated, quickly bored and tired. As for several ways that can be done to overcome the above by doing learning innovation. Some ways that can be done, among others, provide a quiz or puzzle that must be guessed either in groups or individuals, giving the game in a class of numbers and so on depends on teacher creativity. So to simplify students in learning mathematics must be connected with real life that occurs in everyday life.

Similar problems concerning low mathematics learning outcomes also occur in grade V students Bukit KubuBesitang. Based on observations on the learning process of mathematics in the V MIN

Bukit camp class, obtained data on low learning outcomes. Based on the background of the problem described above, the following problems can be identified:

1. Teaching is teacher-centered, so teachers are more likely to dominate lesson.
2. Teachers more often use lecture methods, so the teacher's method is less vary.
3. Students tend to be passive and less interested in learning mathematics.
4. Low mathematics learning outcomes of students.

2. Discuss

2.1 Understanding Learning

Basically learning is a process but experts define learning according to their own vision, but in broad outline they still refer to the general sense that learning is a change of behavior. Hilgard and Bower, in *Theories of Learning*, argue that learning relates to a change in one's behavior toward a particular situation caused by repeated experience in that situation, where the behavioral change is unexplained or the basis of the tendency an innate response, maturity, or a person's momentary state. Gagne in the book *The Conditions of Learning* states that learning occurs when a stimulus situation along with the content of memory affects the student in such a way that his actions change from the time before he experienced the situation to the time after he experienced the situation earlier.

Anita Woolfolk (2004) Piaget argues that the individual builds his own understanding; learning is a process of building; at each level of cognitive development, students must adjust the information into the scheme they possess. This active experience, at an early school level, should include the manipulation of physical objects and the manipulation of mental ideas.

2.2 Realistic Mathematical Understanding

According to Zainurie (2007) realistic mathematics is the school mathematics that is implemented by placing the reality and experience of students as the starting point of learning. Realistic problems are used as the source of the emergence of mathematical concepts or formal mathematical knowledge. Realistic mathematics learning in the classroom is oriented towards the characteristics of Realistic Mathematics Education (RME), so students have the opportunity to rediscover mathematical concepts or formal mathematical knowledge. Furthermore, students are given the opportunity to apply mathematical concepts to solve everyday problems or problems in other fields. Realistic Mathematics Education (RME) is a theory of teaching and learning in mathematics education. The RME theory was first introduced and developed in the Netherlands in 1970 by the Freudenthal Institute. This theory refers to opinion Freudenthal (in Zainurie, 2007) who says that mathematics must be associated with reality and mathematics is a human activity.

This means that math must be close to the child and relevant to real-life everyday. Realistic mathematics learning is basically the utilization of reality and environment that learners understand to expedite the process of learning mathematics, so as to achieve the goal of mathematics education better than the past. Referred to reality is real or congruent things that can be observed or understood learners through imagining, while the definition of the environment is the environment where learners are good school environment, family and society that can be understood learners. The environment in this case is also called daily life.

Because realistic mathematics uses realistic problems as the starting point of learning, the problem situation needs to be cultivated to be completely contextual or in line with student

experience, so that students can solve problems in informal ways. Informal modes demonstrated by students are used as inspiration for the formation of mathematical concepts.

3. Research Results

Mathematics learning with Realistic Mathematics Approach at MIN BukutKubuBesitang has been implemented according to the implementation stage of planning, action, acting, observing, reflecting. Freudenthal (AriyadiWijaya, 2011: 20) suggests that mathematics should not be given to students as ready-made products, but as a form of activity in constructing mathematical concepts. This opinion is in line with Jerome Bruner who states that knowledge can not be obtained in a way given or transferred from others, but formed and constructed by the individual itself, so that the student is able to develop his intellectual ability. Learning outcomes are often used as a measure to find out how far a person has mastered the material already taught (Purwanto, 2010: 44). Student learning outcomes are shown in scores of values obtained in each cycle. The student learning outcomes at the end of cycle I and cycle II as follows. 1) The final evaluation result of cycle I shows that the students who got the score above the KKM there are 19 students (65,52%), while the student who got the score under KKM there are 10 students (34,48%). 2) The final evaluation result of cycle II shows that the students who got the score above KKM have 25 students (86.21%), while the students who got the score under the KKM there are 4 students (13.79%).

4. References

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