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**Application of Realistic Mathematics Education
(RME) Strategy in Learning Mathematics in MI/SD**

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Abstract

This study aims to describe Realistic Mathematics Education (RME) learning strategies and to see the effect of these strategies on learning mathematics in MI/SD. This study uses a qualitative method, which is a research method that provides more analytical and subjective explanations. In this method the researcher uses the perspective of the participants as a preferred description in obtaining research results. From the results of the study it can be concluded that the RME strategy is very influential on students because with this strategy students are more interested in learning mathematics. Because this strategy is implemented by placing the reality and experience of students as the starting point in the learning process.

Keywords: *Learning Mathematics, Realistic Mathematics Education (RME), Learning Strategies.*

PRELIMINARY

Learning mathematics is very important in everyday life because humans cannot be separated from calculating, measuring and weighing. For example, when you want to shop, you have to know the price of the goods to be purchased with the funds you have. When traveling, you also have to be able to take into account the distance traveled. Therefore all must learn mathematics. Realizing that mathematics is important in life, it becomes a necessity for humans. However, in fact mathematics is considered a difficult and frightening subject. This is due to several factors, namely the monotony of this mathematics subject with numbers and formulas that seem to have nothing to do with everyday life. Not only that, mathematics seems unpleasant because teachers are unable to explain it to students as they should.

Realistic Mathematics Education or Realistic Mathematics Education (RME) is a learning approach in which there are mathematical problems that occur in everyday life, so that students can receive material as well as gain new experiences in their lives. In this case students are invited to think about how to solve problems, look for problems, and what the main problem is. At the age of MI/SD, children usually like to play and discover new things. At this age their curiosity is very big. Ideally, children learn while playing. But the fact is they prefer to play than study. This is often seen in everyday life. Especially with the advancement of technology, today's children are the ones who have to study, they are busy with their cellphones. Sometimes they forget their obligations as students.

Likewise teachers or educators, basically teachers and educators must be able to see the situation and conditions so that learning in the classroom runs effectively. The teacher must also be able to make the atmosphere in the classroom more pleasant. However, what happens is that the teacher makes the atmosphere awkward and tenses the students with monotonous learning. One of the teacher's efforts to generate active student learning is by applying appropriate learning methods. The learning method is the method used by the teacher in establishing relationships with students during teaching (Sudjana, 2000).

Therefore the role of the teaching method is as a tool to create a teaching and learning process and to be active in the teaching and learning process. To find a good learning method, we also need to adjust it to the material, situation, available media and the ability of the teacher. Because the effectiveness of a method is influenced by objective factors, student situation factors and the teacher itself (Andeska,

2012). In addition, the use of methods in learning must be varied and not monotonous according to the learning objectives. Based on the Literature Review, with this Realistic Mathematics Education (RME) learning strategy, it is hoped that it can improve the quality of teachers in teaching and can add new learning experiences for students. And can provide a new atmosphere in learning so that students can understand and accept the material presented by the teacher.

METHOD

This research was conducted in March 2023, in Tembung, Bandar Khalipah, Jalan Pasar 11 Health Center, Alley Amal with elementary school students, specifically grade V students at Hidayatussalam Elementary School. This research was conducted to see how the influence of RME learning strategies in learning mathematics in MI/SD. In this article the method used is a qualitative method, namely research that is descriptive in nature and tends to use analysis (Assingily, 2021).

FINDINGS AND DISCUSSION

One approach to learning mathematics that is oriented towards creating a learning process by linking it to the experiences of students' daily lives is the Realistic Mathematics Education (RME) approach. RME is an approach to mathematics education developed in the Netherlands by Hans Freudental. The real world is used as a starting point for the development of mathematical ideas and concepts in learning using RME (Ananda, 2018). The Realistic Mathematical Education (RME) learning model is also one of the mathematics learning models developed to bring mathematics closer to students. Real objects that are familiar with everyday life are used as teaching aids in learning mathematics (Salamah, 2020).

Mathematics is a universal science that underlies the development of modern technology, it has an important role in various disciplines and advances human thought. The rapid development in the field of information and communication technology today is based on developments in mathematics in the fields of number theory, algebra, analysis, probability theory and discrete mathematics. To master and create technology in the future requires strong mastery of mathematics from an early age (Ananda, 2018).

According to Maulana (2008), mathematics as a human activity means that mathematics can be learned by doing it (doing mathematics). Therefore, learning mathematics is applied through learning by carrying out various activities (learning to do), as an effort to rediscover a mathematical concept from its understanding of real problems in life. Sumantri (2015) argues that the realistic mathematics referred to in the RME learning model is school mathematics which is carried out by placing students' realities and experiences as the starting point of learning.

The Realistic Mathematics Education (RME) learning model directs students to meaningful learning according to students' thinking abilities and is closely related to students' daily lives. This will direct students to the understanding that mathematics is not only a mere symbolic science but can be used in everyday life to help and facilitate the work of mathematics in solving life problems (Zhafirah, 2020).



Figure 1. Implementation of RME Learning Strategy.

The steps in the Realistic Mathematics Education (RME) learning strategy are as follows: First step: Understand everyday problems/context, including activities (a) coordinating classes for learning activities, (b) explaining learning objectives to be achieved, (c) start learning by giving examples of Mathematics learning problems in everyday life, (d) demonstrating solving Mathematics learning problems using appropriate teaching aids, and (e) providing problem solving questions that are often encountered in life about Mathematics Learning .

The second step, namely explaining contextual problems, includes activities: (a) asking the class to prepare a discussion forum, (b) explaining the discussion procedures, (c) distributing discussion assignments about Mathematics learning material, (d) asking students to prepare Media/ teaching aids in accordance with their duties regarding Mathematics Learning, (e) asking students to carry out assignments/discussions in accordance with their respective assignments, (f) asking students to link data with mathematical concepts, (g) guiding students in expressing what is asked in mathematics learning problems, (h) guiding students to discuss and disclose information on mathematics learning problems.

The third step, solving contextual problems, includes activities: (a) directing students to prepare teaching aids in solving Mathematics learning problems, (b) guiding students in using teaching aids to solve Mathematics learning problems, (c) guiding Students to prepare Mathematics learning models by using the appropriate props.

The fourth step, comparing and discussing answers, includes activities: (a) giving directions to students to solve mathematics learning problems based on their own experience, (b) periodically monitoring student activities in solving problems/assignments, (c) asking students to present the results of work on learning Mathematics alternately in class, (d) The lecturer acts as a moderator and facilitator in carrying out class discussions, (e) The lecturer invites students to respond to the results of student presentations in class discussion forums about learning Mathematics, (f) The lecturer invites Students to reflect on the results of student presentations about learning Mathematics, (g) Lecturers and students conclude the results of presentations and class discussion results to be used as a reference in learning Mathematics.

The fifth step, concluding, includes activities: (a) Students analyze the elementary Mathematics curriculum, (b) Students develop the competencies that Elementary students must have in learning Mathematics, (c) Students develop a Mathematics learning plan for Elementary students, (d) Students simulate planning Mathematics learning that has been prepared through peer teaching, (e) Students carry out class discussions and reflection on plans that have been simulated by peer teaching, (f) Students to provide input on lesson plans that have been simulated, (g) Students conclude on lesson plans that have been has been compiled and simulated (Wahyudi, 2016).

Briefly the steps of the Realistic Mathematics Education (RME) learning strategy can be seen in the following scheme.

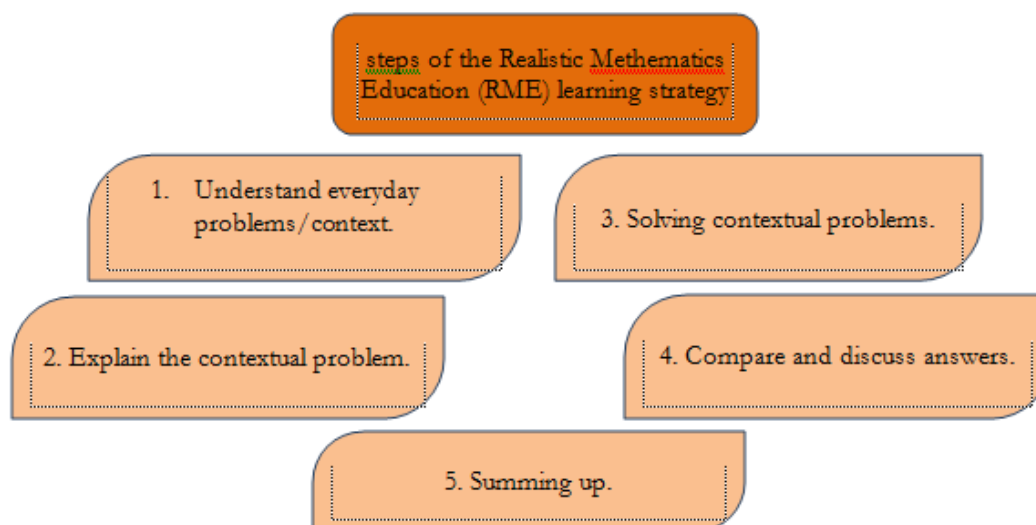


Figure 2. Steps of the RME Learning Strategy.

After discussing the steps of the Realistic Mathematics Education (RME) strategy, then there are advantages and disadvantages of this strategy, namely: According to Elwijaya, *et.al.* (2021), The advantages of a realistic approach are as follows: 1) Mathematics is more relevant, meaningful and interesting, not too abstract and not too formal. 2) Putting emphasis on learning mathematics on "learning by doing". 3) Consider the ability level of students. 4) Using context as a starting point for learning mathematics. 5) Provides solving math problems.

Meanwhile, Barnes (2005) reveals the weaknesses of the realistic approach, including: 1) Attempts to weaken the realistic approach give rise to a very basic view of various matters concerning teachers, students, and the role of contextual problems which are not easy to put into practice. 2) Efforts to encourage students to be able to find various ways to solve problems are also things that are not easy to do. 3) Searching for contextual questions is not always easy for every math topic that students learn. 4) The process of researching students' thinking abilities through contextual questions, the process of horizontal and vertical mathematization is also not something simple, because the processes and mechanisms of students' thinking must be followed carefully. 5) Requires quite a lot of time.

CONCLUSION

Based on the description above, it is concluded that this strategy is suitable for use in learning mathematics at MI/SD. Because with this strategy students are directed to problems that exist in everyday life. So that they will be facilitated in solving existing problems. In addition, with this strategy students will not feel bored in learning mathematics. Because learning also uses learning media that will make students more interested in learning mathematics.

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