Implementation of Realistic Learning Method to Increase Students' Interest in Learning in Mathematics Class III C at SDNU Metro

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Abstract
This research is intended to examine the application of realistic learning methods in an effort to increase students' interest in learning in the implementation of Mathematics lessons in Class III C SDNU Metro. The realistic learning method was chosen because of its ability to connect Mathematical theory with everyday experience, thus helping students in understanding the material and strengthening their enthusiasm for learning. This research was conducted with a descriptive qualitative approach that aims to find or formulate a theory. The applied research approach aims to photograph reality or social phenomena that occur in a systematic and factual manner by digging into the meaning, views, and experiences of the research subjects. This method does not focus on numbers or statistics, but on narrative, words, symbols, and the meaning of an event or behavior. Data was collected using observation techniques, interviews, as well as document collection, the data obtained was then analyzed descriptively. This finding shows that the application of realistic learning methods significantly increases students' interest in learning. This can be seen from the increased level of participation, higher curiosity, and positive response to the Mathematics learning session. Thus, the realistic learning method is proven to be a teaching method that is able to encourage an increase in students' interest in learning, especially in learning Mathematics at the primary school level.

INTRODUCTION

Mathematics learning in elementary school serves as the primary foundation for developing logical, critical, and structured thinking skills in children from an early age. However, in practice, many third-grade students demonstrate low levels of interest in mathematics. This subject is often perceived as difficult, confusing, and unappealing because it is presented abstractly and lacks connection to students' everyday experiences. Yet, interest in learning is a key factor influencing students' overall learning outcomes. (Arga et al., 2024).

The problem of low interest in learning mathematics is generally caused by traditional or conventional teaching methods, where teachers tend to rely on lectures and practice exercises without providing meaningful context. This condition makes students feel less interested in participating in learning, even tending to be passive in class. If this is allowed

to continue, not only will academic achievement decline, but negative attitudes toward mathematics will also develop from an early age (Anggraeni et al., 2022).

Through the RME approach, students are encouraged to understand mathematical concepts gradually: from contextual problems to group discussions to more abstract conceptual understanding. This not only makes learning mathematics more enjoyable but also fosters a natural interest in learning.

Mathematics learning in elementary schools, especially in third grade, often faces the challenge of low student interest because the material is perceived as abstract and lacks clear connections to real-life experiences or situations. The dominant conventional method makes students less interested and passive in learning. However, the implementation of RME is still hampered by a lack of teacher understanding, limited resources, and an evaluation system that does not optimally support the learning process. Various studies have shown that RME is effective in fostering interest and improving mathematics learning outcomes in early elementary school students (Emawati & Istiqamahtu, 2022). Through this approach, the learning process feels more relevant and can foster learning motivation naturally

Several previous studies have shown that the approachRealistic Mathematics Education(RME) has been shown to increase student interest and improve mathematics learning outcomes at the elementary school level, particularly in lower grades. Research by Azzahra (2021) at Tangsi Lama Elementary School found that the use of the RME approach in teaching multiplication significantly improved the learning outcomes of third-grade students. Meanwhile, another study conducted at Cluster III Selaparang (2023) showed that the use of a realistic mathematics approach can increase students' active participation in learning activities. Furthermore, a study by Amalia and Ekawati et al. (2016) emphasized the importance of utilizing manipulative materials in the RME approach in significantly increasing student learning motivation. Overall, these findings support that a realistic approach, with its real-world context and meaningful activities, can foster students' interest in mathematics from an early age.

Therefore, learning methods play a crucial role in determining the quality of student learning outcomes. One method considered effective for deepening understanding of mathematical concepts isRealistic Mathematics Education(RME). This method emphasizes the connection between mathematical concepts and real-life situations, enabling students to understand the material in a more contextual and meaningful way. In its application, RME

encourages students to actively think, discuss, and find their own solutions through concrete experiences

For the RME method to be implemented optimally, the role of the teacher is crucial. Their role extends beyond delivering material, but also serves as a facilitator in the learning process, guiding students in exploring concepts. Therefore, teachers can effectively implement the RME method if they have a good understanding of this approach and are able to design learning that involves contextual activities, group discussions, and reflection.

On the other hand, implementing the RME method also requires adequate support from the school. Supportive facilities and infrastructure, such as learning media, teaching aids, and a conducive classroom, are key factors in creating a fun and effective learning environment. Without this support, the contextual learning process will be difficult to implement effectively.

As educational institutions, schools have a responsibility to provide facilities that meet the needs of innovative learning, such as RME. These facilities extend beyond physical materials to include teacher training, module provision, and technology integration to support student learning. With a commitment from the school, RME-based learning can run more smoothly and deliver optimal results.

Thus, collaboration between teachers and schools is crucial for the successful implementation of the RME method. Professional and creative teachers, supported by adequate school facilities, will create a dynamic, enjoyable, and meaningful learning environment for students. This combination is expected to increase students' interest in learning and foster a deeper understanding of mathematical concepts and their application in everyday life.

METHOD

This research was conducted using qualitative methods that adopted a descriptive approach. This method was used to gain a more comprehensive understanding of the research's focus phenomena, based on the perspectives of the informants. Descriptive qualitative research focuses on systematic and factual descriptions of ongoing events, conditions, or social situations, without manipulating existing variables. (Marinu, 2024).

Data collection in this study was conducted using three main methods: in-depth interviews, observation, and documentation studies. In-depth interviews were conducted using a semi-structured approach to allow informants to freely express their experiences

and perspectives. Direct observations were made of activities, interactions, and social contexts relevant to the research topic. Finally, documentation, such as photographs, written documents, archives, and other important notes, played a role in supporting data completeness.

In qualitative descriptive research, the data analysis stage begins with data reduction. Data reduction is a crucial step carried out by filtering, selecting, and summarizing data obtained through various collection methods such as observation, interviews, and documentation. The goal is to prioritize data directly related to the research problem formulation, while discarding irrelevant data so that researchers can more easily organize information that aligns with the focus of the study. (Stie, 2022).

After data reduction, the next step is data presentation. The selected data is then organized in a systematic manner in the form of descriptive descriptions, tables, or charts. This data presentation is intended to make it easier for researchers and readers to understand the patterns emerging from the research results. Through good presentation, relationships between data can be seen more clearly and in depth, thus supporting the interpretation process.

FINDINGS AND DISCUSSION

Research on realistic learning methods To foster the interest of class III C students in learning story problems in Mathematics subjects. Based on the results of the study, the application of a realistic learning approach has been proven to provide a positive contribution to the learning process towards increasing students' interest in learning in Mathematics subjects, seen from the increasingly active participation of students during learning activities. Students show greater enthusiasm when involved in the learning process, especially when faced with real-life contexts relevant to Mathematics material. ApproachRealistic Mathematics Education(RME) allows students to connect mathematical concepts to everyday contexts relevant to their experiences, making the material easier to understand and less abstract. This approach helps students feel more motivated because the learning feels real and relevant to their lives.

Realistic learning methods encourage students to master mathematical concepts through the use of real-world situations directly related to everyday life experiences. This process helps students understand that mathematics lessons are not merely abstract concepts but have real, practical benefits. The contexts used in learning activities, such as

buying and selling games, measuring real objects, and calculating money, have been shown to increase students' curiosity and engagement (Amalia, 2024).

Students are more active in asking questions, discussing with their peers, and displaying joy and enthusiasm when given challenging yet life-relevant assignments. This confirms that meaningful learning methods play a significant role in creating a comfortable and effective learning environment.

In addition to increasing interest in learning, realistic learning methods can also develop students' critical thinking and problem-solving skills. When students encounter real-life problems that require mathematical concepts to be addressed, they actively engage in the thinking process and find solutions. This contributes to increased intrinsic learning motivation. (Tri, 2024).

A crucial factor in the success of this method is the teacher's role as a facilitator who can structure and organize contextual and engaging learning activities. Active teachers guide students in connecting mathematical concepts to everyday situations and events and help create an interactive classroom atmosphere that fosters learning interest.

However, several challenges were encountered during implementation. Some students were still accustomed to traditional approaches, requiring time to adapt to a realistic learning approach. Furthermore, developing context-based learning scenarios required more creativity and preparation from teachers. These challenges can be overcome with teacher training and thorough lesson planning

From the reflection, it can be concluded that realistic learning methods not only increase student interest but also encourage active student engagement. Learning becomes more meaningful because students don't just memorize formulas but also truly understand the concepts they learn through direct experience.

Basic Principles of RME
The implementation of RME refers to five main principles:

1. Contextualization

   Learning begins with problems that are close to students' lives so that they can understand and relate them to mathematical concepts.

2. Modeling

   Students develop their own models or ways to solve problems.

3. Interactivity

   Students are invited to discuss, work together, and provide feedback to each other.

4. Mathematization

It consists of two types—horizontal (from the real world to mathematical models) and vertical (from models to abstract concepts).

5. Intertwinement (relationship between concepts)

Mathematical concepts are learned in an integrated manner, not separately

Stages of RME Implementation in Learning

The following are general steps in implementing RME in the classroom:

1. Contextual Problem-Solving

The teacher begins by presenting real problems that are relevant to students' lives, for example counting the number of fruits bought at the market or dividing a cake fairly.

2. Group Discussion

Students discuss in small groups to understand and find solutions to the problem using their own approaches and thinking. At this stage, students are free to create models or strategies they deem reasonable.

3. Class Presentation and Discussion

After group discussions, students present their work. The teacher and other students provide feedback, criticism, and questions. The goal is to guide students in finding more efficient strategies and deeper understanding.

4. Strengthening Mathematical Concepts

From the various strategies that emerge, teachers guide students toward formal mathematical concepts. For example, from concretely dividing objects to the concept of fractions.

5. Reflection

Students are encouraged to reflect on their thinking processes and understand the relationship between real contexts and the abstract concepts they have learned.

Implementation of Learning Methods *Realistic Mathematics Education* (RME) Class III C at SDNU

Realistic Mathematics Education (RME) is an approach to mathematics learning originally developed by Freudenthal in the Netherlands. This approach emphasizes that mathematics must be connected to reality or students' real-life experiences for learning to

be meaningful. Mathematical concepts are not taught directly but are instead constructed by students through a modeling process based on contextual situations (Nguyen, 2022).

In the initial step of the research, the realistic learning method was applied in mathematics lessons as one of the efforts to grow the interest in learning of Class III C students at SDNU. The researcher gave a research permit to the principal of SDNU Metro to study the application of a realistic learning approach applied to encourage an increase in the interest of class III C students in SDNU Metro.

The results obtained by the researcher during classroom observations indicate the results of activities carried out during the learning process. In the initial stages of learning, the Mathematics teacher was very enthusiastic in class. This was to stimulate student responses and encourage enthusiasm in participating in the Mathematics lesson. After opening activities such as greetings, the class leader led a prayer, followed by checking student attendance. Then, the teacher explained the Mathematics lesson material. The teacher then implemented the learning using realistic learning methods.

Figure 1.

Implementation of the RME Method

The following are the steps for implementing the realistic learning method.

1. Student orientation to the problem. The teacher focused on giving students assignments to work on story problems in textbooks. This indicated that students faced obstacles in solving story problems related to the topic of comparison. The

goal of this step was for students to be able to overcome and work on these story problems.

2. Coordinating students. The teacher coordinates students in Mathematics learning. Next, the teacher asks students to form small groups of three to five people. Next, the teacher provides small pieces of paper with numbers written in a row. Here, the teacher asks each group to come forward in turns to arrange the papers in order. This is to see students' understanding of comparing.

3. The teacher gives examples of story questions using realistic methods about comparisons in the class. Example question "In class III C, there are two fruit baskets. The first basket contains 8 apples and the second foil contains 12 apples. If we want to divide the apples fairly among 4 friends, how many apples does each student receive from each basket?"

4. Here, the teacher asks students to work through the problems in their textbooks again. Here, students appear to be finding it easier and more understanding to work through the story problems.

After the observation, the researcher conducted interviews with the Mathematics teacher and several students from class III C. Here, the teacher felt a difference in students working on story problems, being calmer and asking fewer questions about comparisons. According to the researcher, the Realistic learning method in the comparison material of mathematics subjects is more effective, especially in helping students understand story problems. Here, the researcher also realized that the Realistic Method is very interesting and effective in understanding the story problems.

Increasing Interest in Studying Class III C Students at SDNU Metro

Learning interest indicators refer to signs or characteristics that indicate a student's interest and willingness to actively participate in the learning process (Novita, 2020). The learning interest indicators used as a reference in this study are as follows:

1. Attention to the lesson material

   Students show curiosity, focus, and listen carefully when the teacher explains the material.

2. Active involvement in learning

   Students actively ask questions, answer, give opinions, or discuss during the learning process.

3. Perseverance in doing tasks

   Students work on assignments seriously, do not give up easily, and try to find solutions even when they encounter difficulties.

4. Enjoy the lesson

   Students show enthusiasm, joy, and do not feel stressed when taking lessons.

5. Awareness of the importance of learning

   Students realize the benefits of the lessons they follow and try to follow the learning independently or with motivation from within themselves.

6. Frequency of asking or requesting explanations

   Students often ask questions or request further explanation if there is something they don't understand.

7. Participation in additional learning activities

   Students are interested in taking part in additional activities such as study groups, quizzes, or competitions related to the subject.

The findings of this study align with the realistic learning approach developed by Freudenthal, which states that mathematics should be taught by connecting concepts to students' real-world situations. This finding is also supported by various previous studies showing that a contextual learning approach can encourage increased student motivation and learning outcomes.

Based on the overall learning outcomes, the implementation of realistic learning methods can be used as a powerful approach to fostering student interest in learning mathematics, especially at the elementary level. This study provides empirical evidence that enjoyable, relevant, and meaningful learning can change students' attitudes toward mathematics to become more positive.

The Role of Teachers in Implementing RME

In the implementation of RME, teachers act as facilitators and guides in the learning process. Their role is no longer limited to conveying information, but rather as active mentors who encourage students to think critically, ask in-depth questions, and design and implement problem-solving strategies independently (Gerhajun, 2022).

In carrying out this role, teachers create a safe and stimulating learning environment, so that students feel comfortable learning and developing, exploring and expressing ideas. Teachers also have a crucial responsibility in designing problem contexts that are authentic,

relevant to real life, and appropriate to students' developmental levels and interests, making learning more meaningful and motivating their active engagement.

Challenges in Implementing the Realistic Mathematics Education (RME) Learning Method in Class III C SDNU

Some of the obstacles in implementing RME in Class III C SDNU include:

1. Limitations of media or contextual teaching materials.

2. It takes more time than the lecture method.

3. Within a class, there is a wide variation in student ability. Students with low ability may have difficulty participating in discussions and explorations, while students with high ability may feel less challenged.

4. Students who are accustomed to lecture methods and routine practice questions are often passive and have difficulty adapting to the RME approach which demands active involvement and critical thinking

CONCLUSION

The results of the study show that the use of learning methodsRealistic Mathematics Education(RME) can effectively encourage increased student interest in learning mathematics, particularly in story problems in third grade elementary school. This improvement is reflected in student enthusiasm, activeness, and engagement during the learning process, as well as a significant difference between pretest and posttest interest scores.

Realistic learning methods provide meaningful learning experiences by linking learning materials to everyday situations. Students can experience mathematics as a real and understandable subject, not something abstract and complicated, but close and relevant to their lives. Contextual situations such as buying and selling, measuring real objects, and educational games can capture students' attention and encourage active participation.

The successful implementation of this method depends heavily on the teacher's role as a facilitator, capable of designing contextual learning, guiding discussions, and guiding students through the mathematization process. However, several challenges, such as limited media, time, and teachers' understanding of the basic principles of RME, remain obstacles that need to be addressed through training and careful planning.

Overall, learning mathematics through a realistic approach not only increases students' interest in learning but also contributes to the development of their ability to analyze deeply and find solutions to problems. Therefore, RME is recommended as an engaging and efficient learning approach for use at the elementary school level

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