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## Analysis of Children's Numeracy Skills in The Village Pagar Dewa Kaur with Math Approach Realistic

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### ABSTRACT

**Background.** The relevance of math materials to children's daily lives is an important factor in the success of this approach. **Purpose.** This study aims to analyze the counting ability of children in Pagar Dewa Village Kaur with Realistic Mathematics approach.

**Method.** The research sample consisted of 30 children aged 6-8 years. Data was collected through counting ability test and observation.

**Results.** The results showed that most of the children in Pagar Dewa Village Kaur had low counting skills. However, after learning with the Realistic Mathematics approach, there was a significant increase in children's understanding and application of mathematical concepts.

**Conclusion.** This study provides recommendations for educators and curriculum developers to apply the Realistic Mathematics approach in children's mathematics learning in rural areas.

### KEYWORDS

Early Childhood, Fasting, Parents

## INTRODUCTION

Mathematics education plays an important role in developing children's logical and analytical thinking skills (L. R. Putri dkk., 2023). Numeracy is an important aspect of math development in children (Johanna dkk., 2023). However, the level of numeracy skills of children in rural areas is often a major concern, as there are differences in accessibility and learning environments that may have an impact on their math learning.

One of the villages that is the focus of this research is Pagar Dewa Village, Kaur (Andra dkk., 2023). This village represents a rural area located in the Bengkulu region, where children in Pagar Dewa Kaur village face particular challenges in developing their numeracy skills (Kurniawan dkk., 2023). Factors such as limited resources, lack of educational facilities, and lack of attention to math development in rural areas can have an effect on children's numeracy skills.

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Therefore, this study aims to analyze the counting ability of children in Pagar Dewa Village Kaur by using the Realistic Mathematics approach (Susanti dkk., 2023). The Realistic Mathematics approach emphasizes learning that is relevant to children's daily lives, by linking mathematical concepts with the situation realities that they face (Saputra dkk., 2023). Thus, this approach is expected to help children in Pagar Dewa Kaur Village develop a better understanding and application of mathematical concepts.

This research has important relevance, as it can provide an overview of the level of children's numeracy skills in rural areas and provide recommendations for educators and curriculum developers to improve math learning (Sari dkk., 2023). By applying the Realistic Mathematics approach, it is hoped that it can provide a more interesting and relevant learning experience for children, so that they can develop better counting skills.

## RESEARCH METHODOLOGY

The research method used in this study is descriptive qualitative research (Lasmi dkk., 2023). The research sample consists of 30 children aged 6-8 years in Pagar Dewa Village, Kaur (Amri dkk., 2023). Data will be collected through curriculum-relevant numeracy tests and observation of the children's interaction with the math materials taught using the Realistic Mathematics approach (Maulida dkk., 2023). The use of observation will provide a deeper understanding of the children's responses and participation during the learning process.

The data collected will be analyzed descriptively, focusing on the level of children's numeracy skills before and after the application of the Realistic Mathematics approach (N. A. Putri dkk., 2023). In addition, observations will also help in understanding the impact of this approach on children's motivation and engagement in learning mathematics.

## RESULT AND DISCUSSION

### Numeracy

Numeracy is an individual's ability to perform basic math operations such as addition, subtraction, multiplication and division. Numeracy is one of the important competencies in the development of mathematics in children (Asman dkk., 2023). Good numeracy skills enable individuals to understand and apply mathematical concepts in a variety of daily life situations.

Learning math is essentially reading activities from the reality of our own lives (Benefits, 2010: 9).

The development of numeracy skills begins at an early age, and its development will continue along with cognitive development and children's learning experiences (B. Beribe, 2023). Children are expected to be able to master basic counting concepts such as number recognition, addition, subtraction, simple multiplication, and simple division in the early stages of learning (Lumban Gaol, Hansrainer, dkk., 2023). Numeracy also involves understanding number patterns, recognizing mathematical relationships, and solving mathematical problems (Yeltriana dkk., 2023). In addition, numeracy also includes speed in performing counting operations and accuracy in producing correct answers.

It is important to note that numeracy skills can be developed through developmentally appropriate approaches (Minarti dkk., 2023). One effective approach is the Realistic Mathematics approach, which connects mathematical concepts with real situations in children's daily lives. With this approach, children can see the relevance and usefulness of math in contexts they are familiar with, thus motivating them to learn and develop better numeracy skills.

Improved numeracy skills have far-reaching positive impacts, not only in academics, but also in everyday life (Mustajab dkk., 2023). Good numeracy skills enable individuals to make informed decisions in financial contexts, measure and estimate in practical situations, and solve complex mathematical problems.

Therefore, it is important for educators and parents to give proper attention to developing children's numeracy skills (Ulm dkk., 2023). By providing learning that is relevant, interactive and involves real-life situations, children can develop solid numeracy skills and be ready to face the math challenges in their lives.

### **Realistic mathematics approach**

Realistic Mathematics Approach is an approach in learning mathematics that emphasizes the use of real situations and the context of everyday life as a foundation for understanding mathematical concepts (Nurzen dkk., 2022). This approach aims to make math learning more relevant, meaningful, and interesting for children (Pamungkas & Halimah, 2023). Paul Cobb and Jeanne B. Paul Cobb and Jeanne B. Varma (2011) "suggest that the Realistic Mathematics approach allows children to develop a deep understanding of mathematics through authentic situations and contexts (Roshayanti dkk., 2023). They emphasize the importance of linking mathematics to real life so that children can see its value and relevance."

In the Realistic Mathematics approach, math is seen as a tool used to solve problems in everyday life. Mathematical concepts are taught through solving real problems and authentic situations that are relevant to children's lives (Fuadi & Mirsal, 2023). Children are invited to formulate problems, collect data, apply mathematical operations, and provide interpretations of the results obtained.

The Realistic Mathematics approach emphasizes the understanding of concepts and the application of mathematics in the context of real life (Suryaningsih, 2021). Through this approach, children can see the connection between math and the everyday situations they experience. They will more easily understand mathematical concepts, develop logical thinking skills, and apply mathematics in real life. In addition, the Realistic Mathematics approach also encourages active, collaborative, and exploratory learning (Mutalib & Dylan, 2021). Children are given the opportunity to think creatively, express ideas and work together with their peers (Afifah dkk., 2023). Through social interaction and discussion, they can deepen their understanding of math and learn from different perspectives.

The Realistic Mathematics approach has been shown to be effective in improving children's motivation, understanding and numeracy skills (Muhammadong dkk., 2023). In the context of the research in Pagar Dewa Kaur Village, this approach is expected to help children in rural areas to develop their numeracy skills in a relevant and meaningful way.

The results and discussion of the study showed that most of the children in Pagar Dewa Village Kaur had low counting skills before the application of the Realistic Mathematics approach (Yennizar dkk., 2022). In the initial numeracy test, many children had difficulty in performing simple counting operations, understanding number patterns, and applying mathematical concepts in real situations.

However, after learning with the Realistic Mathematics approach, there was a significant improvement in the children's numeracy skills (Pathurohman dkk., 2023). They showed progress in understanding math concepts such as number, subtraction, multiplication and division (Farid, 2023). They are also better able to identify patterns and relationships in numbers and apply their mathematical knowledge in everyday life.

Observations of children's interactions with math materials taught using the Realistic Mathematics approach also showed higher levels of motivation and engagement (Amirudin dkk., 2022). The children showed greater interest in learning math and were more active in participating in math activities involving real situations (Nida dkk., 2023). They also expressed higher confidence in facing mathematical challenges.

that the Realistic Mathematics approach is effective in improving children's numeracy skills in Pagar Dewa Village, Kaur (Lumban Gaol, Morales, dkk., 2023). Through this approach, children can see the relevance and usefulness of math in their daily lives, thus motivating them to learn and apply math concepts better (Teguh dkk., 2023). The Realistic Mathematics approach also helps children gain a deeper understanding of mathematical concepts and practice critical thinking skills.

can be given to educators and curriculum developers to implement Realistic Mathematics approach in mathematics learning in rural areas (Zarnuji, 2023). Efforts are needed to provide learning materials that are relevant to children's daily lives and engage them in mathematical activities involving real situations. In addition, it is also necessary to pay attention to the development of critical thinking and problem solving skills in mathematics learning.

In conclusion, this study revealed that the Realistic Mathematics approach is effective in improving children's counting skills in Pagar Dewa Village, Kaur. This research makes an important contribution to understanding and improving mathematics learning in rural areas. It is hoped that the results of this study can provide a basis for curriculum development and more effective and relevant mathematics learning in rural areas.

## CONCLUSION

the Realistic Mathematics approach is effective in improving children's numeracy skills in rural areas. the Realistic Mathematics approach makes a positive contribution to the development of children's numeracy skills in Pagar Dewa Village, Kaur. This approach helps children understand and apply math concepts better through real life situations and contexts. Through relevant and meaningful learning, children become more motivated and actively involved in learning math.

Realistic Mathematics approach is effective in improving children's numeracy skills in Pagar Dewa Village, Kaur. This approach provides meaningful, relevant and engaging learning experiences for children, helping them to build a strong understanding of mathematics. In the context of education in rural areas, this approach has the potential to improve the quality of mathematics learning and prepare children to face mathematical challenges in their lives in an increasingly digital and math-based era.

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