



Factors influencing the low numeration literacy of the low class in Duri Kepa 11 Primary School, West Jakarta

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ABSTRACT

This research aims to analyze the factors that influence low class numeracy literacy at Duri Kepa 11 Public Elementary School, which is included in the low category and to analyze efforts to overcome the low level of lowclass numeracy literacy at Duri Kepa 11 Public Elementary School. The method used is qualitative with a descriptive approach using interviews, structured, observation and documentation. The results of the research show that the factors that influence the low numeracy literacy skills of lower grade students at SD Negeri Duri Kepa 11 can be categorized into two, namely internal factors and external factors. Internal factors include low reading ability, low concept understanding ability, and low reading interest. Meanwhile, external factors that influence include parental guidance, teacher ability, and infrastructure. Solutions that can be implemented by the school to overcome the low numeracy literacy skills of lower class students at SD Negeri Duri Kepa 11 include getting used to calistung 15 minutes before class learning activities begin, optimizing facilities and infrastructure, using models, techniques and approaches for fun learning.

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INTRODUCTION

Education is a lifelong learning process that plays an important role as a long-term investment in determining the progress of a nation (Papadakis et al., 2016). Basic education as the initial stage of formal education plays a very important and "important" role in the educational process (Gjicali et al., 2019). In this context, "important" refers to the urgency and importance of basic education in providing an important foundation for further development and advanced education. In accordance with Law Number 20 of 2003 Article 17, basic education is the main foundation for the next level of education which ultimately determines the quality of education at a higher level. Therefore, effectively handling educational problems at this level is a strategic step towards improving the quality of education at the next stage (Safari & Khasanah, 2023).

Considering the statements in the previous paragraph, the problem of basic education as the initial stage of formal education must be handled as effectively as possible (Rohmah et al., 2022).

Quick and appropriate action in overcoming challenges at this stage will prevent the emergence of more complex and burdensome problems at the next stage of formal education (Ramani & Siegler, 2008). In facing these challenges, policies and strategies that focus on improving the quality of basic education, increasing accessibility, providing quality teacher training, and ensuring adequate resources are essential. This approach ensures that every child receives a strong educational foundation and is well prepared to move on to the next stage of education with adequate preparation (Ramani & Siegler, 2008).

Existing problems regarding literacy and numeracy in upper elementary school students aim to explore numeracy literacy in state elementary schools (B. & Rais, 2023). This problem arises due to a low culture of literacy and numeracy which has a significant impact on low learning outcomes. This is mainly caused by teachers' lack of practice in formulating and promoting literacy and numeracy-based questions (Putra, 2023). Apart from that, lack of parental guidance and supervision is also a contributing factor. In this context, parental guidance and supervision refers to holding evening study sessions with parental involvement, thereby enabling parents to assess the extent of their child's understanding of the material taught by the teacher.

RESEARCH METHODOLOGY

The method applied in this research is a qualitative approach with a descriptive approach. Data was obtained through structured interview techniques, observation and documentation. The research results show that the low numeracy literacy skills of lower grade students at SD Negeri Duri Kepa 11 can be categorized into two main groups of factors: internal factors and external factors (Ahyana et al., 2023).

Internal factors involve problems that originate from within the students themselves (Cowan & Powell, 2014). These factors include low reading ability, minimal understanding of concepts, and lack of interest in reading. Students may have difficulty understanding numeracy material due to lack of reading ability, which in turn affects their understanding of basic numeracy concepts. Low interest in reading can also cause a lack of interest in learning numeracy (Mahmudah et al., 2022).

External factors include factors that come from the environment around students (Papadakis et al., 2017). This includes the influence of parents in supporting learning, the teacher's ability to teach numeracy material, and the availability of facilities and resources. Parents who are actively involved in supporting their children's learning have a positive impact on children's numeracy literacy skills. In addition, teachers who are competent in teaching numeracy are very important. Adequate facilities and resources also play a role in creating an effective learning environment (Kritzer, 2009).

By understanding these factors, efforts to improve numeracy literacy among lower grade students at SD Negeri Duri Kepa 11 can be focused on solutions that are appropriate to the internal and external factors that influence these students' numeracy literacy abilities.

RESULTS AND DISCUSSIONS

Results

The findings of this research underscore the importance of numeracy literacy as the ability to understand information and apply basic mathematical concepts in overcoming everyday challenges. This important skill equips students with the ability to navigate problems by applying mathematical principles (Ramani & Siegler, 2011). Therefore, basic education places a strong emphasis on numeracy literacy by integrating it into problem-based learning programs and learning processes, with the main aim of imparting essential numeracy knowledge to students. However, challenges remain in the practical application of this approach in real-world educational settings. One of these ongoing challenges revolves around the low level of numeracy literacy of students in primary education (Permata Sari, 2022).

In the specific context of research conducted at SD Negeri Duri Kepa 11, careful observations carried out by researchers revealed the numeracy literacy level of lower class students, including class 1, class 2, and class 3. This observation explains that during the question and answer session in class, there was a visible lack of enthusiasm among the students. Only a handful of students are actively involved in the learning process (Joost & Thorens, 2001). Teachers are forced to use contextual materials, such as videos and images, as teaching aids and literacy resources Aulia & Rejeki, 2023). Next, they presented problems based on real-life scenarios, conveyed in the form of narratives and observations, according to insights shared by the principal at SD Negeri Duri Kepa 11.

The findings of this research underscore the need for further improvements in the field of numeracy literacy education (Nuryana et al., 2020). Although various steps have been taken to integrate numeracy literacy into the curriculum, there is still huge scope for increasing student engagement and refining pedagogical strategies to increase numeracy literacy proficiency among lower grade students (Cahyani & Susanah, 2022).

Discussion

In light of the research results, it becomes evident that numeracy literacy remains a challenge in the context of primary education, particularly among lower-grade students at SD Negeri Duri Kepa 11. This observation aligns with the theoretical framework that underscores the importance of numeracy literacy as a foundational skill for solving real-life problems and fostering critical thinking (Danon, 2012). According to educational theory, numeracy literacy is not only about the rote application of mathematical formulas but also about understanding mathematical concepts in context (LeFevre et al., 2009). This understanding enables learners to make informed decisions and solve problems in various domains of their daily lives. Therefore, it is crucial for primary education programs to provide a strong foundation in numeracy literacy, as emphasized by the theoretical underpinnings of modern pedagogy (Gjicali et al., 2019).

Moreover, the discrepancy observed in student engagement during numeracy literacy activities aligns with the theories of student motivation and active learning (Safari & Khasanah, 2023). Research in the field of education suggests that active student participation and motivation are essential for effective learning outcomes (García et al., 2015). The limited enthusiasm and participation seen among students in this study may be attributed to various factors, including teaching methods and the learning environment (Rohmah et al., 2022). The educational theory emphasizes the need for pedagogical approaches that foster a supportive and engaging classroom atmosphere, encouraging students to take an active role in their learning (Hannaway et al., 1011). In this context, it is imperative for educators and policymakers to consider these theoretical principles when developing strategies to improve numeracy literacy among primary school students, addressing both the content and the pedagogy to create a more effective and engaging learning environment.

CONCLUSION

The conclusion of this research has identified key factors that contribute to the low numeracy literacy skills of lower grade students at SD Negeri Duri Kepa 11. These factors can be grouped into two main categories, namely internal factors and external factors. Internal factors include problems such as low reading ability, minimal understanding of concepts, and lack of interest in reading among students. On the other hand, external factors include the role of parents in guiding children, teacher competence in delivering numeracy material, and the availability of infrastructure that supports learning. The results of this study underscore the importance of joint efforts to overcome these challenges.

To improve the numeracy literacy skills of lower grade students at SD Negeri Duri Kepa 11, schools can take several concrete steps. One of them is introducing the habit of "calistung" for 15

minutes before starting learning activities in class. This step aims to strengthen the basics of numeracy skills before the main lesson material begins. Apart from that, it is important to optimize existing facilities and infrastructure to create a conducive learning environment. Finally, the use of models, techniques and fun learning approaches can encourage students to be more active in understanding and applying numeracy concepts. With these steps, it is hoped that the numeracy literacy skills of lower grade students will experience significant improvements, helping them to reach their full potential in understanding and using mathematics in everyday life.

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