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Literacy and Numeracy Skills of Elementary School Students in the Wetland Environment of Banjarmasin City

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A B S T R A C T

Primary education is the foundation for the intellectual development of students, one of which can be measured through literacy and numeracy skills. However, in some areas, particularly in regions with specific environmental characteristics such as wetlands, there are numerous challenges that hinder the achievement of these basic competencies. This study aims to identify the factors influencing the low literacy and numeracy skills of elementary school students in schools located in the wetland areas of Banjarmasin City. This research uses a qualitative approach with a case study design. Data were collected through in-depth interviews with teachers and school principals, direct field observations, and literacy and numeracy tests to measure students' abilities. The findings show that the literacy and numeracy skills of students in the five schools are at a low level, caused by several factors, including limited educational facilities, low parental education levels, and the geographical and socio-economic challenges present in the wetland environment. Some recommendations for improvement include enhancing educational facilities, teacher training, and increasing parental involvement in supporting learning at home. This study provides insight into how environmental factors play a critical role in determining the quality of education in the area and offers solutions that can be implemented to address these issues.

Keywords: *Literacy, Numeracy, Wetlands, Elementary School*

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INTRODUCTION

Basic education is a very crucial stage in the development of an individual, because at this stage basic learning including literacy and numeracy is introduced (Siddiq et al., 2023. Literacy, which includes the ability to read, write, and understand texts, as well as numeracy, which includes the ability to count, solve problems, and understand basic mathematical concepts, is a competency that every student must master from an early age. Literacy and numeracy skills not only serve as foundations for other subjects, but also affect students' abilities in daily life (Haloho & Napitu, 2023; Yuda, 2024), both in economic, social, and cultural decision-making (Ain et al., 2023).

However, in many regions in Indonesia, especially in areas with certain geographical and socio-economic characteristics, the achievement of students' literacy and numeracy skills is still very low. One of the regions facing this challenge is the city of Banjarmasin, which is known for its wetland area. Wetlands in Banjarmasin have unique geographical conditions, which can affect accessibility, quality of education, and student learning environment. In areas like these, many schools are located in remote areas and have limited facilities, resulting in suboptimal quality of education (Juliana et al., 2023; and Murtafiah et al., 2022).

This research focuses on five elementary schools located in the wetland environment of Banjarmasin City. These schools were chosen because they have similar characteristics related to geographical location, as well as the challenges faced in accessing quality educational

resources. As part of this study, an evaluation was carried out on students' literacy and numeracy abilities to understand how much environmental conditions affect their learning outcomes. This study aims to explore more deeply the factors that cause low literacy and numeracy skills in these schools, as well as provide strategic recommendations to improve the quality of education.

Factors of concern in this study include limited educational facilities in wetland areas, low levels of parental education, and socio-economic challenges experienced by local communities. This condition is a major obstacle to the development of students' literacy and numeracy skills, which contributes to their low achievement in the tests that have been conducted. In this context, this research aims not only to identify problems, but also to find solutions that can be applied to improve the quality of education in this area.

METHOD

This research uses a qualitative approach with a descriptive qualitative design. Two elementary schools in the wetland environment of Banjarmasin City were chosen as research objects. Data was collected through in-depth interviews with teachers, principals, as well as direct observations in the classroom. In addition, literacy and numeracy tests are also carried out to measure students' abilities objectively. The data analysis technique used is thematic analysis, in which the researcher identifies the main themes that emerge from the collected data.

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FINDING AND DISCUSSION

Geographical Environmental Conditions and Their Impact on Education:

Schools located in the Banjarmasin wetland area face major challenges related to accessibility. Some schools are difficult to reach because they are located far from the city center and are sometimes isolated by rivers or submerged land. This has an impact on transportation limitations for teachers and students, which in turn affects the frequency and quality of learning meetings.

Students in these areas, especially those living in the suburbs, often have to travel long and difficult to reach school. As a result, many students arrive late for school or even miss out on a regular basis. The instability of these geographical conditions not only hinders student attendance, but also causes delays in the completion of the curriculum which leads to a low understanding of subject matter, including literacy and numeracy (Jumadiyah and Zumrotun, 2024; Ar et al, 2024).

Socio-Economic Factors and Their Influence on Literacy and Numeracy Skills

One of the main factors affecting the literacy and numeracy abilities of students in this area is the relatively low level of parental education. Many parents work in the informal sector, with limited income and little time to accompany their children in the process of learning at home. The inability of parents to provide maximum educational support impacts students' ability to develop academically, especially in basic skills such as reading and arithmetic.

In addition, dependence on the informal sector and low family incomes have reduced the ability to purchase props, reading books, and access to additional education outside of school. This results in many students not having adequate learning facilities to hone their literacy and numeracy skills, both at home and at school (Hardianto et al., 2024; and Kennedy et al., 2024).

Limitations of Educational Facilities and Their Impact on Learning

Limited educational facilities in wetland areas are also one of the main obstacles in efforts to improve students' literacy and numeracy skills. The schools studied generally had very minimal facilities, with limited classrooms, a lack of suitable reading books, and a lack of technological devices that could be used to support digital-based learning (Turchioe, 2024 and Dorris, 2024).

Although some teachers have attempted to adopt more creative learning methods, such as project-based teaching or the use of visual aids, the limitations of these facilities remain a

major obstacle. Without adequate facility support, teachers' efforts to improve students' literacy and numeracy skills become less effective (Salminem, 2022). Students cannot access learning materials to the fullest, and this has a direct impact on the literacy and numeracy test results they achieve.

School Efforts in Overcoming Educational Challenges

Schools in wetland areas have been trying to address the various challenges faced by students. Some of them have implemented remedial programs to help students who are lagging behind in literacy and numeracy lessons. This program aims to provide an opportunity for students who have difficulty understanding the material to get extra guidance outside of regular class hours.

However, despite these efforts, the results have not been sufficient to address the problem as a whole (Yulia, 2023. Existing remedial programs are still limited in scope, and not all students have equal access to participate in the program (Green, 2021). In addition, the implementation of this program is highly dependent on the abilities and commitment of each teacher, which is often limited by available time and resources (Hogland, 2023).

CONCLUSIONS

Based on findings in the field, several steps need to be taken to improve the quality of education in elementary schools in wetland areas. These recommendations include improving educational infrastructure by providing decent classrooms, reading books, and teaching aids that support literacy and numeracy learning; more intensive training for teachers to improve their ability to manage learning and apply innovative and adaptive methods; active involvement of parents through training and debriefing on how to support children in learning at home; as well as the provision of additional learning programs, such as tutoring or tutoring, which are expanded and adapted to the needs of students.

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