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MATHEMATICAL LITERACY PROFICIENCY PROFICIENCY PROFILE FOR 5TH GRADE AT STATE PROMARY SCHOOL 04 BELATUNG

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Abstract

This research aims to identify and describe the profile of mathematical literacy ability of students in grade 5 of State Primary School 4 Belatung. Through written tests and interviews, this research analyzes to what extent students are able to understand, apply, and communicate mathematical concepts in various contexts. During the observation, several problems were found where students are lacking in literacy and numeracy skills, such as lowerand upper primary students who are not yet able to read and calculate fully, and the minimal resources for learning at State Primary School 04 Belatung.The research results are expected to provide a comprehensive picture of students' strengths and weaknesses in mathematical literacy, thereby serving as a basis for planning more effective learning strategies.

Keywords: Strengthening, Literacy, and Numeracy

1. Introduction

Children aged early refers to the phase development children who are generally in progress from born until age six year. This period considered as period crucial in life a person, where various aspect development physical, cognitive, language, moral, social, and emotional in progress with fast (Sofyan, 2018). With understand characteristics and needs child become important For support grow the flower optimally. At this time, the child no only study about skills basic. But also develop skills emotional matters for interaction social and as supplies future learning. According to Ladd, et al. in (Aghnaita & Irmawati, 2022) explain that children who have ability good emotional can influence level success child in create connection positive with environment. Development emotion close the relation with development social, then ability child for manage and communicate emotion positive and also negative with good, weave connection with other children and adults around him, as well as active explore environment through knowledge new called as development social emotion (Nurmalitasari, 2015).

There are several factors that affect the quality of mathematical literacy in Indonesia, including environmental, personal, and intrusive factors. This personal factor includes the learning styles that students possess. Gaya learning is related to how students should grasp or apply the information that is taught by the teacher. Understanding how to analyze student learning will make it easier for teachers to create lesson plans that are engaging and give students the tools they need to absorb the material in the most efficient way possible. Every student has a unique learning style when it comes to understanding information or course material, and this is one of the ways that student learning differs from one another. (Abidah, Junarti, dan Zuhriah 2022). In the teaching campus program, students will be placed in elementary schools throughout Indonesia and assist in the teaching and learning process at the school. According to the Director General of Wikan, the Teaching Campus Program can be a good forum to hone non-technical skills

(soft skills), leadership, and the character of vocational students. "During the assignment period, students will face many real challenges, will face many uncertainties that will train the spirit of leadership, creativity, innovation, problem solving, communication, and team management". The Teaching Campus is part of the Independent Campus program that involves students on each campus from various educational backgrounds to help teaching and learning process in schools, especially at the elementary level and providing opportunities for them to learn and develop themselves through activities. The campus through students to move to the success of national education The Teaching Campus Program equips students to learn as independently as possible outside of university. Teaching Campus Students Conduct learning, collaborate with teachers in elementary schools in accordance with the placement that has been given by the Teaching Campus Program The scope of the Teaching Campus activities includes learning in all subjects focusing on literacy and numeracy, technology adaptation, and managerial administrative assistance in schools. The Teaching Campus Program is expected to provide benefits for students to nurture if they have leadership and character and have teaching experience, collaborating with teachers in elementary and junior high schools to organize effective and interesting learning.

The advantages that can be obtained for colleges from this program are supporting universities to achieve the main performance indicators (KPIs), namely the large number of students who gain experience outside the campus. In this program, students will be deployed to school for one semester, and then recognition or recognition of learning outcomes will be carried out 20 semester credit units (SKS). Thus, universities can provide convenience and certainty for students to get recognition of learning outcomes of 20 credits after participating in the program Teaching Campus.The Teaching Campus program at SD Negeri 04 Belatung, Kapuas Hulu Regency lasted for four months. The Teaching Campus Team at SD Negeri 04 Belatung consists of two members from different study programs and universities. Then also accompanied by their respective Field Supervisors

Literacy is the ability to read, write, speak, analyze, calculate, solve daily problems, and utilize one's potential. Therefore, there are various forms of literacy,including literacy, numerical literacy, digital literacy, financial literacy, and politicalliteracy. Assessing the ability of mathematical literacy is one of the basic competencies that are important for students. Mathematical literacy is not only about the ability to calculate but also the ability to understand, apply, and communicate mathematical concepts in various daily life contexts. In order to improve the quality of mathematics education in Indonesia, it is important to deeply understand the profile of students' mathematical literacy abilities. (Hariyanti et al. 2024)Literacy is an important skill and should be at an appropriate level for all students in primary school, meaning being able to read, write, read, understand, write, and express in accordance with what is read. The idea also invites the entire community to develop the habit of

Personal arithmetic skills encompass the practical application of mathematical principles and operations in everyday life. These skills involve the application of numbers and mathematical operations in daily situations at home, education, and society. According to the Ministry of Education and Culture, developing mathematical skills helps children understand the relationship between mathematics and daily experiences. By utilizing this understanding, we can enhance our nation's competitiveness in the efficient use and management of natural and human resources. Calculation is an important skill that everyone should possess. Numerical skills are very important because most of our daily livesdepend on them.Basic numerical skills include counting and understanding values place, and basic arithmetic. This skill has proven to be very useful in everyday lifeand is an important foundation for understanding more complex problems.

Promoting students' numerical skills from a young age, especially from elementaryschool, is very important for learning, work, and social interaction at all stages of life. Therefore, it is

important to continuously train and develop computational skills both within and outside the educational environment (Susriyanti, 2022).

It is essential for students to have a deep understanding of mathematics, including understandingof numbers and symbols, as well as the ability to interpret visual data such as graphs and tables. This basic knowledge is very important because it can be applied in real-life situations.

The teacher aims to improve students' counting skills by playing a role that supports and encourages active participation of students. Students try to overcomechallenges in problem solving. .(Wewe, Owa, and UNA 2024) After making observations in class 5 of the State Elementary School 04 Menlatung, it is observedthat there are still many who do not understand in strengthening literacy and numerization which are still working on numerization problems with carelessness without first calculating the value produced and Lack of understanding in reading the problem, therefore the scientific work, the researcher performs a description of the title "Profile of Mathematics Literacy Class 5 SD Negeri 04 Belatung

This research aims to identify and describe the profile of students' mathematical literacy abilities in grade 5 of State Primary School 4 Belatung. By understanding the students' abilities, it is hoped that a clear picture can be obtained regarding the strengths and weaknesses of students in understanding mathematical concepts, solving problems, and communicating mathematical ideas. The results of this research are expected to contribute tothe improvement of the quality of mathematics learning in State Primary School 04 Belatung.

Problem Statement

a. How is the profile of the students' mathematical literacy in class 5 of State Primary School 04 Belatung?
b. What factors influence the mathematical literacy ability of fifth-grade students at Negeri 4 Belatung Primary School?

Theoretical Framework

The research instrument consists of 20 AKM questions which include complex multiple choice, ordinary multiple choice, matchmaking, and true and false. In addition, there are interview guidelines that aim to confirm students' answers and conduct an in-depth analysis of students' initial mathematical ability profiles. The research sample interviewed included one student from the medium category, two students from the low category, one classroom teacher, and three students from the eighth batch of teaching programs.(Junaedi dan Yulianto 2023)

Literature Review

Maulidina and Hartatik (2018), in a study entitled "Numeracy Ability Profile of High-Achieving Elementary School Students in Overcoming Mathematics Problems."

The findings of this study show that subjects with high numeracy skills can use precisely various numbers or symbols related to basic mathematics to solve problems in various everyday situations. They are also able to analyze information presented in various formats, such as graphs, tables, and diagrams, and can interpret the results of that analysis to make informed predictions and decisions.

Ermiana et al. (2021) conducted a study titled “The Numerical Literacy Skills of Inclusive Elementary School Students in Solving Word Problems.” The findings from this research reveal that the numerical literacy abilities of inclusive students in addressing word problems are still considered inadequate. This conclusion is evidenced by the responses from inclusive students when tackling simple word problems pertaining to basic arithmetic operations. Out of the five

problems presented, none of the answers provided by inclusive students were correct. However, despite the incorrect answers written, these students demonstrated an effort to respond to the questions to the best of their ability.

Mahmud and Pratiwi (2019), with the research title "Students' Numeracy Ability in Solving Unstructured Problems."The findings of this study show that students can overcome unstructured problems faced in daily life; They are able to analyze the information obtained from the questions and then use the analysis to make predictions and draw conclusions. However, students experience several challenges such as difficulty in understanding the questions; lack of understanding of basic material; difficulties in designing a solution strategy; and difficulty in drawing conclusions.(Wewe, Owa, dan Una 2024).

2. Methods

Systematic approach and planning, analyzing, and implementing an evaluation with existing activities. The methodology used by the researcher is the Descriptive Quantitative method. The overall object of the research is 5th-grade students with a total of 7 students. The location of the research implementation is Sekolah Dasar Negeri04 Belatung. The data used to obtain and collect the study by providing the AKM test for Siswa/i SD N 04 Belatung. Data collection using Observation, Interview, and Analyzing the extent of the students' understanding of the given questions. The analysis method is expected to enhance the students' understanding of literacy and mathematicsso that in the future, the students can more easily carry out learning in literacy and numeracy, especially. The expected results for the 5th grade SD N 04 Belatung studentscan achieve fluent intonation, correct vowels and punctuation marks, and strengthen their mathematical literacy.

3. Results and Discussion

AKM Monitoring Data

The objective carried out is for Class 5 of SDN 04 Belatung with a total of 7 students, which is carried out in 2 days to fill in literacy and numeracy questions through the process of pretest Assessment of Minimum Competence (AKM) using Android or mobile phones, and the students use the AKM application.

The pre-test results indicate that the literacy rate is as low as 25%, and this indicates a low number for very minimal literacy due to a lack of awareness in previous learning where they had to move up a grade even though they could not read literature, resulting in a low number for the strengthening of existing literacyin Class 5 SDN 04 Belatung. Literacy is conducted once to monitor students and is then followed by an evaluation and reflection that can help students strengthen their literacy skills profile. The AKM class consists of 2 namely Pre-Test and Post-Test. Pre-Test means an evaluation or test that is carried out before learning. The goal is to obtain initial competency parameters. While Post-Test is an evaluation or test that is carried out after the learning material. The goal is to find out how far students have mastered the learning that has been given.

Pretest

The students carried out the pretest on September 20, 2024 using android The students who took the 5th grade AKM Pretest totaled 7 people and the results in the Literacy Pretest were as follows:

Image 1. Literacy Results of Grade 5 SD Class N 04 Belatung

No	Kompetensi	Level Kog	Jumlah soal	Jumlah siswa	Jumlah siswa menjawab benar	Presentase siswa menjawab benar
1	F02 Menemukan informasi tersurat (siapa, kapan, di mana, mengapa, bagaimana) pada teks fiksi		20	7	1,8	25%

Image 2. Numerical Results of the AKM for Class 5 SD N 04 Belatung

No	Kompetensi	Level Kog	Jumlah soal	Jumlah siswa	Jumlah siswa menjawab benar	Presentase siswa menjawab benar
1	Menyelesaikan persamaan sederhana menggunakan operasi penjumlahan atau pengurangan (dalam bentuk sederhana)		20	7	1,5	21%

The image above shows the declining numbers from literacy and from the data it can be concluded that the level of Mathematics (Numeracy) in Class 5 SD N 04 Belatung is very low and minimal, as the Numeracy percentage is only 21% where the interest and talent of the students are very low in understanding Mathematics, even filling out questions without using calculation, operation, and reading methods.

No	Kompetensi	Level Kog	Jumlah soal	Jumlah siswa	Jumlah siswa menjawab benar	Presentase siswa menjawab benar
1	F02 Menemukan informasi tersurat (siapa, kapan, di mana, mengapa, bagaimana) pada teks fiksi		20	7	3,6	51%

No	Kompetensi	Level Kog	Jumlah soal	Jumlah siswa	Jumlah siswa menjawab benar	Presentase siswa menjawab benar
1	Menggunakan penjumlahan/ pengurangan/perkalian/ pembagian dua bilangan cacah (maks. empat angka), termasuk menghitung kuadrat dari suatu bilangan cacah (maks. tiga angka). (termasuk mengestimasi hasil operasi)		20	7	3	43%

It can be observed from the Pretest Results of Literacy and Numerization are very low From the results seen, it can be concluded that students' literacy and numeracy skills

still need to be improved. From the results of the literacy pre-test, there is a competency of the percentage of students who answered correctly is still very low, namely Finding explicit information (who, when, where, why, how) in fiction texts and comparing the main things in the information text (for example, differences in events, procedures, characteristics of objects).The results of the literacy and numeracy post-test showed that the percentage of students who answered correctly was 43% and 51%. From the post-test results, it can be seen that the literacy and numeracy skills of grade 5 students have improved. Based on the results of the pre-test and post-test of grade 5 students, it can be seen that students' literacy skills increased by 26%, while students' numeracy skills increased by 22%. This means that students' literacy and numeracy skills have greatly improved.

From this research, results that most students have not mastering all literacy indicators Mathematics even though literacy ability It is very important for students to master. Learning outcomes affect literacy ability, because in This research is a student whose score low tend to have mathematical literacy skills that less. In line with the research, the conclusion was obtained that students with the ability poor literacy, having the value is below average.(Kurniawan dan Khotimah 2022)

AN OVERVIEW AND IMPLICATIONS OF THE STUDY STRENGTHENING MATHEMATICAL LITERACY

Reading and writing skills are the minimum or basic skills that need to be mastered by students. Since the assessment is carried out by students at the junior high school level, teachers and schools can improve the quality of learning (Rachman et al., 2021). By implementing this at the intermediate level, schools can use the assessment results to identify students' learning needs. Strategies and initiatives you can take to strengthen literacy and numeracy skills as well as support independent learning. This strategy starts with building a literacy culture throughout the unit education. (Gede 2024)

In simple terms, mathematicalization can be interpreted as the process of translating and solving everyday problems. Everyday problems are presented and solved as mathematical problems. The process of solving these problems affects all objects in mathematics. After obtaining a solution, it is interpreted into the context or real-world situation. Such a process enhances a person's sensitivity to the use of mathematics in solving everyday problems. This sensitivity helps you solve problems effectively and efficiently. This applies not only to complex problems in the workplace but also to daily life issues. Its goal is to build a society capable of facing the diverse challenges of this century. In daily life, students face issues in the fields of personal, social, professional, and academic life. Many of these issues are related to the application of mathematics. Being good at mathematics will help students solve these problems. Therefore, knowledge and understanding of mathematical concepts are very important, but the ability to activate mathematical skills to solve daily problems is far more important.

The School Literacy Movement (GLS) is currently being implemented by the government at various levels of education, including the primary school level (SD). Elementary school is the beginning of basic education, therefore, increasing reading interest is extremely strategic.Profile of the students' mathematical literacy ability in class 5 of SD N 04 Belatung remains very low due to the lack of awareness in school or the educational background of the parents, who do not pay enough attention to their children's primary school education. They simply send their children to school and do not

provide guidance or evaluate how well their children understand literacy and mathematics. Additionally, the school lacks students and there is a lack of awareness to guide the process of strengthening mathematical literacy.Learning outcomes such as students' literacy and numeracy are measured through national assessments. The purpose of literacy assessment is to measure the ability to understand, use, and evaluate various types of texts, solve problems, and develop personal skills as a globally contributing citizen who contributes productively to society.

Content literacy involves the ability to understand fiction or non-fiction, as well as cognitive processes in finding clear information, drawing conclusions, reflecting, and evaluating other perspectives. Numeracy assessment measures the ability to think by using concepts, procedures, facts, and mathematical tools to solve everyday problems in various relevant situations for individuals as Indonesian citizens and global citizens. Arithmetic content covers the fields of numbers, algebra, geometry, data, and uncertainty, as well as cognitive processes that begin with understanding, application, and thinking. To be able to calculate, students must be able to apply mathematics to various situations and problems. Developing mathematical skills encompasses activities that provide students withself-confidence and experience in applying the mathematical knowledge learned in everyday situations and all subjects studied at school. Therefore, to develop students' computational abilities, a paradigm shift is needed where computation is not solely the responsibility of mathematics teachers but of all teachers ofnon-mathematics subjects as well (Nicomse and Naibaho 2022).

The literacy movement at the primary school level needs to be supported and optimized. Its focus is on the development and habituation of reading. I hope that children will become accustomed to reading from a young age, and they will continue to enjoy reading at a higher level even after working and raising children. In other words, the habit of reading in elementary school is its foundation. When reading becomes a hobby, I am very happy to practice it. In mathematical literacy, students' mathematical thinking ability is low, especially in understanding mathematical concepts, application, and mathematical thinking. This proves that mathematics lessons still have no meaning and are not related to the daily lives of students. Even when explaining mathematical concepts, students find it difficult to understand visual representations and models. Regarding the above, it is necessary to teach literacy in elementary school to improve reading comprehension in all subjects and to enhance high-level thinking skills (Mboeik 2023).

Ways to improve literacy among students are by making this reading corner created by the class teacher through collaboration with parents and students. The books available in the reading corner are borrowed from the school library and are gifts from the students. To improve students' literacy skills, the school organizes visits to each class accompanied by each class teacher and supports the library.

The role of the teacher is also very important in improving students' literacy skills and increasing reading and writing interest, by first conducting a reading and writing review for 10 minutes before starting the teaching and learning activities. Students who are not fluent in reading and writing should be accompanied by a teacher so that the teacher can assess the student's progress in reading and writing skills. To boost students' self-confidence, teachers encourage students to visit the library on a schedule that has been determined. Students are asked to choose their favorite books and take turns telling their teachers and classmates what they are reading.

Activities such as introducing literacy movements, reading corners, library visits, etc. make students more enthusiastic and active in improving their reading and writing skills. Reading materials for students to enjoy are available in the school's picture books. Students are more interested in reading picture books compared to those with only text.In addition, the role of parents is also very important in improving students' reading and writing skills, especially in helping them review what has been taught in school. (Santoso et al. 2024) Suggestions that can be conveyed in this research are to encourage parents and the community to implement literacy practices, establish reading habits not only at school but also in their living environment, and encourage students' reading interest in various ways to increase engagement. Attractive strategies. (Cholifah 2024). Researchers are very hopeful and confident that students in fifth grade and other grades have the potential to improve Mathematical Literacy.

4. Conclusions

Cognitive learning outcomes such as literacy and student numeration are measured through national assessment. The purpose of literacy assessment is to measure the abilityto understand, use, and evaluate various types of texts, solve problems, and develop personal skills as global citizens who contribute productively to the community.Content literacy involves the ability to understand fiction or nonfiction, as well as cognitive processes in finding clear information, drawing conclusions, reflecting, and evaluating the other side, Numeration assessment measures the ability to think by using concepts, procedures, facts, and mathematical tools to solve daily problems days in various relevant situations for individuals as Indonesian citizens and the world of arithmetic content includes the fields of numbers, algebra, geometry, data, and uncertainty, as well as cognitive processes that begin with understanding, application, and thinking. To be able to count, students must be able to apply Mathematics in various situations and problems.Developing mathematical skills encompasses activities that provide students with self-confidence and experience in applying the mathematical knowledge learned in everyday situations and in all subjects studied at school. Therefore, to develop students' computational abilities, a paradigm shift is needed where computation is not solely the responsibility of mathematics teachers, but of all teachers of subjects other than mathematics as well.

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