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Analysis of Numeration Literacy Learning Content on the Character of Primary School Students 060970 Medan Belawan

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Abstract. *One of the main components of the independent curriculum is character and numeracy learning. These two components are among the abilities that elementary school students must have. The aim of this research is to look at problems in learning numeracy and character literacy which are requirements for making learning products. This research is qualitative and uses interviews and observations. The subjects of this research were teachers and students of class IV SDN 060970 Medan Belawan. The results of data analysis show that this research focuses on three main themes: lack of teaching materials to improve numeracy literacy skills, lack of numeracy literacy training, and behavioral problems related to character. Future researchers can use the findings of this research to assess the need to create learning models, learning modules, and teacher guidebooks that aim to improve students' numeracy skills and character.*

Keywords: *Content Analysis, Numeracy Literacy, Student Character,*

1. INTRODUCTION

Numeracy literacy includes all the knowledge, skills, behavior and character needed by students in the field of mathematics in the deepest context (Cao Thi et al., 2023; Gal et al., 2020). Skills have urgency in seeing the development of mathematics in the future (Toll et al., 2011). This skill consists of understanding and manipulating symbolic and non-symbolic numbers (Raghubar & Barnes, 2017). Initial number symbol skills include the ability to count systematically and interpret the meaning of each symbol. How much students understand number symbols impacts how well they master their math skills at the next level (Göbel et al., 2014; Merkley & Ansari, 2016). However, nonsymbolic ability means the ability to operate numbers directly with their objects. Mastery of arithmetic tasks will be influenced by this ability. A student must have a strong character that encourages them to learn and not give up easily so that they can master numeracy literacy skills.

From the information above, numeracy literacy skills are very important for students to master. However, the results of the PISA (2019) and TIMSS (2020) exams show that Indonesian students are in the category that is not good at mathematics. One indicator is that Indonesia is in 42nd position out of 57 countries for mathematics with an Indonesian mathematics score of 397 out of an average score of 408. The 2020 TIMSS results show small improvements in the fields of mathematics and science, although Indonesia is still in a lower position compared to other

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countries. -leading countries such as Singapore, Japan and South Korea (IEA. (2021). This is reinforced by the results of a study by Yunita Ananda (2016) highlighting the importance of developing literacy in elementary schools. According to her, literacy must be taught not only as technical skills for reading and writing, but as skills for critical thinking and accessing information. Student literacy development must start early to form learning independence. Suyanto (2018) in research results shows that reading literacy skills among middle school students Firstly, in Indonesia it is still relatively low. Suyanto noted that many students still have difficulty understanding more complex reading texts and are not used to reading books other than textbooks. Iwan Setiawan (2016) found that although mathematics learning in Indonesia already covers various basic concepts, many students do not understand the relationship between mathematical concepts and have difficulty applying mathematics to solve everyday problems.

As stated by Cao Thi et al. (2023), student effort is an important component in the success of learning numeracy literacy. This concept is very important and can influence improvements and changes in learning. Positive behavior in learning numeracy literacy requires student effort. Attitudes and behavior want to be part of the character shown by a student. Students will quickly master numeracy literacy skills if they are used to trying to solve problems independently and persistently. Since childhood, their unyielding and diligent character has helped them solve various problems with their numeracy literacy skills. Furthermore, it is reported that the numeracy home environment, such as parents' expectations of their ability to read and engaging in supportive activities, is related to young children's ability to read and write correctly (Segers et al., 2015). Routine activities at home carried out by parents can also influence whether students will like what they learn or not.

The Merdeka Curriculum in Indonesia emphasizes instilling character in students through the six-dimensional profile of Pancasila students which instills character. According to Amiruddin et al. (2020), this dimension includes faith that is devoted to God Almighty, global diversity, independence, creativity, and critical thinking. Students who have critical abilities but also possess morals that are in accordance with the nation's culture and customs will be produced if this element is included in numeracy literacy learning. Therefore, the material given to students must consider these six dimensions so that they can become individuals who have a balance between their affective and cognitive aspects.

A further study conducted by Santosa (2019) identified that students who have good numeracy skills tend to be more disciplined in completing tasks that involve numbers or calculations. Disciplined character in thinking and working is often formed when students are accustomed to solving mathematical problems that require attention and precision. Furthermore,

Setiawati (2018) in her research revealed that integrated literacy and numeracy development can form a more comprehensive student character. Literacy and numeracy taught simultaneously can strengthen students' character in various aspects, such as logic, independence, discipline and creativity. Research results from Purnama (2020) state that mastery of numeracy is also related to problem-solving character. Students who are skilled in numeracy have better abilities in solving real-life problems involving numbers, data, or numerical information. Despite the fact that research has been conducted regarding numeracy literacy, discussions about the problem of learning numeracy literacy are still very limited, especially those related to character values. Therefore, the aim of this research is to study the problems faced by teachers and students in learning numeracy literacy which is linked to character values.

2. METHOD

This research was conducted qualitatively, and the data and information obtained were based on experience. In addition, the feelings felt by participants can provide additional information about their abilities in numeracy literacy. Therefore, if relevant information is needed, a qualitative approach is most suitable. The end of this research is to gain a broad understanding of numeracy literacy and character values.

Interviews are a qualitative data collection method. After participants expressed their consent, the structured interview process began in an orderly and gradual manner. When research is ongoing, interview guidelines are needed so that interviews are more focused. The research was conducted from January to March 2023. This research involved teachers and grade IV students. This study was conducted at elementary school 060970 Medan Belawan, Medan City. To facilitate the analysis process, the data that has been collected is then transcribed. The researcher identified several elements that have similar information topics from the transcribed interview data, which is a data validity technique that uses source triangulation. Ultimately, the same subject is transformed into a new subject. The Interpretative Phenomenological Analysis (AFI) method is used to analyze the data that has been collected (see Figure 1):

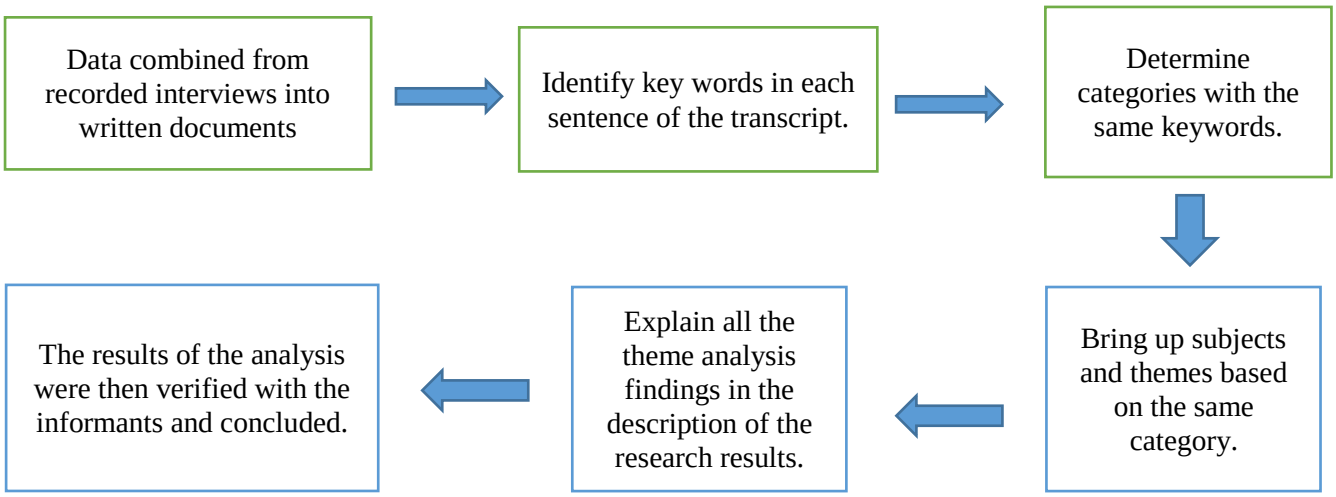

Figure 1. Research Data Analysis Techniques

3. RESULTS AND DISCUSSION

The results of data analysis show that this research focuses on three main themes: lack of teaching materials to improve numeracy literacy skills, lack of numeracy literacy training, and behavioral problems related to character. Further descriptions will be provided for each theme.

Many teaching materials are available to improve numeracy literacy skills

The results of the interview showed that one of the teachers improved his numeracy literacy skills by making lesson plans and using teaching materials and learning media. In class IV at SDN 060970 Medan Belawan, teaching materials are only used for learning mathematics. Apart from that, the textbook used does not include numeracy literacy questions that students can work on independently. Teachers, however, say that students should receive additional reading materials to increase their knowledge and facilitate their understanding of math concepts. In this way, students can use the ideas learned in class to solve problems they face every day

This study found that teachers have made little effort to improve numeracy literacy. This is in line with the results of research by Haryono (2018) which stated identifying several factors that hinder teachers' efforts to improve literacy in the classroom, including limited time, lack of interesting teaching materials, and administrative burdens that burden teachers. Apart from that, Haryono found that many teachers were not trained enough to implement innovative literacy learning methods. Therefore, when teachers create learning scenarios for students, they must incorporate a constructivist approach. In addition, to

increase students' understanding of the importance of this material, they can use real or practical mathematical problems. This was then confirmed by Pramudito A (2017) stating that the use of a constructivist approach in teaching mathematics not only helps improve students' numeracy skills, but also builds critical thinking and problem solving skills. Through problem exploration and group discussions, students can share strategies and ways of thinking in solving problems, which increases their ability to connect various mathematical concepts more holistically

Hidayati (2019) further emphasized the importance of teaching critical literacy with a constructivist approach, which involves students in discussions and critical analysis of various texts, including social media and other sources of information. In this study, Hidayati found that students who were taught literacy using a constructivist approach were better able to understand the meaning behind the text and develop critical thinking skills. This approach also facilitates students to be more actively involved in building knowledge independently.

Minimum experience in numeracy literacy

The results show that students do not have much numeracy literacy practice that they can do independently. Students need books that are equipped with practice questions that pay attention to the AKM numeration elements. Content, context and cognitive processes are the components (Kemendikbud, 2020). Numbers, geometry, measurement, uncertainty, and algebra are content components. The context components consist of personal, socio-cultural and scientific. Personal relates to personal interests, and scientific relates to scientific problems and facts. Understanding, application, and reasoning are components of the cognitive process.

The findings of this research can cause students to have low numeracy literacy skills. A previous study found that many students in remote areas were rarely given numeracy assignments combined with reading or literacy (Prijowuntato et al., 2022). If problems are presented in a reading, they cannot understand, use, and reflect on them. Final solutions and conclusions cannot be reached due to poor understanding of how to interpret the information. Therefore, students face difficulties in relating the text to real life situations outside the text

Cheating behavior and lack of time discipline are problems for elementary school students. Students often forget to do homework for a million reasons. Before the teacher arrives, they do their homework in class. Because they are too busy, students copy their friends' work. Students also show time indiscipline when they are late for class and copy their friends' answers because they are rushed for time. This is supported by a study by Saraswati (2018) which revealed that cheating behavior can damage students' personal integrity and character in the long term. Students who habitually cheat tend to develop an attitude of dependence on

shortcuts, which can hinder the development of real learning skills. Apart from that, cheating can also affect students' social relationships, because they become less appreciated by their friends.

Next, the character problem finds that there is no time discipline. Previous studies show that family, school, and society influence undisciplined behavior (Blegur et al., 2017). In addition, undisciplined behavior is known to students from an early age and can persist until they enter formal school. As a result, this behavior has an impact on the lives of students themselves and their friends. Furthermore, teachers may not pay enough attention to their students by constantly criticizing them and causing undisciplined behavior (Ngwokabuenui, 2015). Negative labels cause students to have poor self-confidence. Every time they meet a particular teacher, they may think of themselves as a failed parent. High demands from teachers as expected by parents can also influence students' desire to learn.

4. CONCLUSION

The results of the research are that numeracy and character literacy skills can support and strengthen each other. Lack of character can have an impact on the numeracy literacy skills of students at state school 060970 Medan Belawan. For example, discipline and honesty can help students understand numeracy literacy material. Researchers can then use the results of this research to evaluate what is needed to create learning models, learning modules for students, and teacher guidebooks that aim to improve numeracy literacy skills and student character.

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