Analysis of Students' Abilities in Solving Story Problems with an Ethnomathematics Context Based on Polya's Steps

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Abstract
Problem-solving ability is an important mathematical ability for finding solutions to problems. One strategy that can improve students' problem-solving abilities is by involving them in solving story problems. This study aims to analyze students' abilities in solving story problems associated with the context of ethnomathematics based on Polya's steps. Using a quantitative descriptive approach method with a focus on fifth-grade students of an elementary school in Banjarmasin City. Data were collected through test instruments and response questionnaires. The results of the study showed that the abilities of fifth-grade students of an elementary school in Banjarmasin City were included in the category of lacking in solving story problems with the context of ethnomathematics according to Polya's steps. The average score of students at the stage of understanding the problem was included in the category of less, at the stage of devise a plan was included in the category of very less, at the stage of carry out the plan was included in the category of sufficient, and at the stage of look back was included in the category of very less. Therefore, a more systematic learning strategy is needed to improve students' abilities in solving story problems with the context of ethnomathematics.
Keywords: student abilities, story problems, Polya steps, ethnomathematics

Introduction

Mathematics is one of the fundamental subjects taught at various levels of education, from early childhood to high school. Mathematics is very important in life and plays an important role in advancing science and technology, because mathematics is one of the basic disciplines. Mathematics learning involves a process of teaching and learning, with all the interactions that occur in it. A contextual approach has been developed in mathematics education, which connects the mathematical concepts taught at school with students' real-life experiences (Yosua & Rusmana, 2021). Therefore, students' learning experience should start with a real problem that is relevant to them.

Having problem-solving skills is very important because humans face various aspects of life problems. A strategy that can be applied in order to improve students' ability in problem-solving is to involve them in solving story problems which are part of the practice of solving mathematical problems in an appropriate way (Faridhatijannah et al., 2022; Pellokila et al., 2020). When solving story problems, the goal is not to obtain the final answer alone, but the main thing is for students to understand the underlying thought process and the steps taken to reach the final answer. The benefits obtained during the

process of solving story problems include helping students realize the practical application of the material they have learned and improving their decision-making skills in life. It is also important to know the ability of students in the learning process. As stated by Doko et al. (2020), it is good for teachers to know students' abilities, such as their ability to solve story problems, so that learning is more effective and successful in achieving learning goals.

The ability to solve story problems plays an important role in improving mathematical problem-solving ability, because it also involves the development of cognitive skills and logical thinking. However, based on previous research, it is suggested that students' ability to solve story problems is still not optimal. A study by Nurvaida et al. (2023) and Nugroho et al. (2023) stated that the average student in an elementary school is categorized as having medium ability in solving story problems. Being included in the moderate category in solving story problems has the potential to have a negative impact on the student, because students tend to be less motivated to try more challenging problems that are needed to deepen their understanding of mathematical concepts. The medium level of student ability can be caused by several factors, such as lack of accuracy in reading and understanding sentences, poor numeracy skills, and confusion in solving story problems correctly (Wasiah et al., 2020).

An interview was conducted with a fifth-grade teacher of an elementary school in Banjarmasin City, he said revealing that students are not accustomed to solving math problems presented in story problems. Students have difficulty understanding the meaning of words or terms used in the problem, resulting in confusion with the information presented in the problem, what is asked, and the right steps to take in solving the problem. Teachers try to make story problems using simple language, but still rarely include story problems that are relevant to students' lives. This is influenced by the limited time in preparing story problems and some teachers are newcomers to the area, so they have limited knowledge of local culture.

Culture and mathematics are two important aspects of life. Mathematics learning that incorporates cultural themes is called ethnomathematics (Rahmawati et al., 2023). The application of ethnomathematics-based learning has several benefits, such as helping students understand mathematics more deeply, expanding their cultural knowledge, and making mathematics learning more interesting and relevant. Then, from the results of the study and several indicators of students' understanding abilities, it is stated that there is an influence of ethnomathematics on students' mathematical understanding abilities, namely

in terms of identifying, understanding and applying mathematical ideas and solving mathematical problems (Soebagyo et al., 2021). Ethnomathematics helps change the perception of mathematics from something abstract to something real because students can better understand mathematical problems that are connected to the culture they experience in life. As revealed in Utami (2024) research which highlights the positive impact of contextual learning on improving students' mathematical problem-solving skills at the elementary school level. Therefore, incorporating ethnomathematics is expected to arouse students' interest in learning to be greater, because they already have an initial understanding based on their own cultural experiences.

Apart from including ethnomathematics elements in story problems, students also need to know the right strategy in solving problems. One of these strategies is the use of Polya's steps. Polya's step provide a systematic approach that helps students identify and understand a problem, develop the skills needed to solve story problems, and apply problem-solving strategies to challenges encountered in life.

Polya is known for his four steps in the problem-solving process. Polya (1973) suggested these steps include: (1) understand the problem, (2) devise a plan, (3) carry out the plan, and (4) look back. Ariani & Kenedi (2018) research revealed that the application of Polya's steps to solve story problems related to volume in elementary schools has a positive impact on student learning outcomes resulting in better results. This finding is supported by the results of Asman & Ariani (2020) research which highlights that the use of Polya's steps has a positive impact on students in the ability to solve story problems. By following Polya's steps, students are given the opportunity to apply their abilities effectively. Thus, the application of Polya's steps is considered effective for use in learning mathematics and especially for the process of solving story problems.

Based on the description above, the researcher is interested in analyzing students' ability to solve story problems based on Polya's steps and the story problems contain local culture with an ethnomathematics context in the researcher's own area, namely a typical cake from South Kalimantan.

Method

This research is a quantitative descriptive research with the aim of analyzing students' ability to solve story problems with an ethnomathematics context based on Polya's steps. In this study, the population was fifth-grade students of an elementary school in Banjarmasin City. The technique used to determine the research sample was *purposive sampling*. In this technique, the sample is selected based on certain criteria relevant to the research objectives or other special characteristics that support the research focus (Etikan et al., 2016). Purposive sampling allows researchers to choose subjects that are considered the most representative. So that the sample in the study was 19 VA class students. VA class students represent the cognitive development stage where abstraction abilities for mathematical story problems begin to develop and Class VA has studied material on LCM and HCF, which is the material that will be used in the story problems created by the researcher.

In this study, the instruments used consisted of test instruments and questionnaire instruments that had been validated by expert validators before being used for research. The test instrument consisted of two ethnomathematics context story problems with LCM and HCF materials. The questionnaire instrument contained several supporting questions to obtain information from students regarding their responses to their experiences in solving story problems with ethnomathematics contexts. Data were collected using test techniques and questionnaire techniques. The data obtained is in the form of data on indicators of solving story problems with an ethnomathematical context obtained from the results of student work with reference to Polya's steps and also percentage data from each indicator to determine students' ability to solve story problems on tests that have been done. Students' ability to solve story problems is analyzed by looking at the solution process written by students on the answer sheet and identified using problem-solving indicators based on Polya's steps which can be seen in Table 1.

Table 1. Scoring Guidelines for Solving Story Problems

Polya's Stages of Analysis	Reaction to the Problem	Score
Understand the problem	Students do not write known and asked information	0
	Students write partially correct known and asked information	1
	Students write the known and asked correctly	2
Devise a plan	Students do not make a plan	0
	Students make a solution plan but a small part of it is correct	1
	Students make the solution plan mostly correct	2
	Students make the solution plan correctly	3
Carry out the plan	Students do not implement the solution plan	0
	Students implement the solution plan with incorrect calculations	1
	Students carry out the solution plan with a small part of correct calculations	2
	Students carry out the solution plan with many correct and incorrect calculations are equal	3
	Students implement the solution plan with mostly correct calculations	4
	Students implement the solution plan with correct calculations	5
Look back	Students do not write the conclusion	0
	Students write partially correct conclusions	1
	Students write the conclusion correctly	2

Source: Afiah (2018)

Then, students' final scores in solving story problems can be categorized based on several categories. The categories of students' ability to solve story problems are determined based on Table 2.

Table 2. Categories of Ability to Solve Math Story Problems

Percentage (%)	Category
85,00-100	Very Good
70,00-84,99	Good
55,00-69,99	Sufficient
40,00-54,99	Less
0,00-39,99	Very Less

Source: Nirfayanti et al. (2022)

Results and Discussion

Based on the results obtained in the research that has been carried out, the following percentage of students based on their ability to solve story problems can be seen in Figure 1.

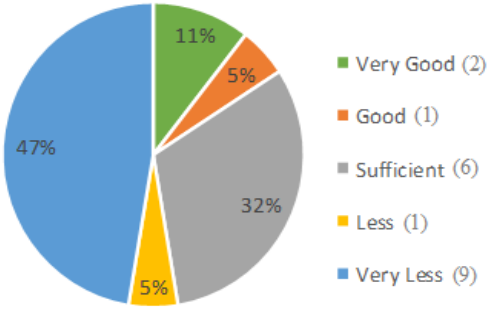

Figure 1. Percentage of Students Based on Ability in Solving Story Problems

As shown in the figure, the highest percentage is 47%% or 9 students from the total sample which means that the ability of students in solving story problems is mostly in the very less category. Furthermore, the categories of students' abilities based on the average student scores in solving story problems are presented in Table 3.

Table 3. Categories of Students' Ability to Solve Story Problems

No.	Indicator	Average Score	Average Value	Category
1	Understand the problem	1,08	53,94	Less
2	Devise a plan	1,02	34,21	Very Less
3	Carry out the plan	3,00	60,00	Sufficient
4	Look back	0,60	30,26	Very Less
Total		1,42	44,60	Less

Polya's steps play an important role in helping students think systematically, so that students can recognize and understand a problem when solving story problems (Ariani & Kenedi, 2018). The first stage in solving story problems according to Polya's steps is understanding the problem. Students must understand the language and terms written in the problem to identify the information provided, such as what is known, the data provided, the relationship between the data, and whether the data is sufficient to answer the question. They also need to recognize the question being asked. The average score of the understanding stage of the problem is 53.94, so it falls into the less category. This happened because students did not correctly write down the information they knew or the questions asked. The students' answer sheets showed that they had difficulty expressing the problems in the story problems using their own words. This difficulty stems from a lack of ability and practice in mathematical literacy. In line with the findings of Rofi'ah et al. (2019), who suggested that errors at the problem understanding stage are often caused by limited language and reading skills.

The second stage of solving story problems, according to Polya's steps, is devise a plan. At this stage, students must develop the right strategy to solve the problem. Nurvaida et al. (2023) explained that during the planning stage, students should be guided to connect the known information with what is asked, and choose the right solution strategy. The average value of the planning stage of 34.21% is included in the very less category. This happens because most students skip the planning stage and move directly to the calculation stage or to the plan implementation stage. The answer sheet shows that students have difficulty connecting the information given in the problem with the mathematical concepts they have learned. This difficulty arose due to a lack of understanding of the concept, unfamiliarity with problem-based questions, and lack of attention to the necessary steps. As stated by Asrofiyah et al. (2022), another factor is that students do not take solving story problems seriously, resulting in mistakes in the process of doing it. The fact in the field, students are not accustomed to solving story problems, so they tend to rush at this stage and immediately do the calculations without planning the strategy properly.

The third stage of solving story problems, according to Polya's steps is carry out the plan. At this stage, students solve math story problems using the strategies or steps they have compiled in the previous stage, following logical procedures and arriving at the correct answer. The average value of the stage of implementing the plan is 60.00% which is included in the sufficient category. The answer sheet showed that students experienced problems in calculation operations and lacked mastery of multiplication and division. This is in accordance with the findings of Wasiah et al. (2020), which states that students usually make mistakes in multiplication. Shalihah et al. (2022) further explained that errors at the stage of carrying out the plan were caused by students who were still mistaken in compiling the steps of the solution, did not carry out the solution plan optimally, and made mistakes during the calculation.

The fourth stage of solving story problems, according to Polya's steps is look back. At this stage, students must carefully examine each step of the solution they have completed. The average score at the checking back stage of 30.26% is included in the very less category. This is because most students do not re-examine their answers. The answer sheet shows that students still have problems in summarizing the answers they find. Many students do not write conclusions because they tend to shorten their responses and are not used to writing the final conclusion. In addition, Rofi’ah et al. (2019) suggested that errors

made at the initial stage can also affect errors at this stage, causing errors when drawing conclusions.

The results showed that there were differences in students' abilities in solving story problems. According to Nirfayanti et al. (2022), students' abilities in solving story problems can be classified into five categories, namely very good, good, sufficient, less, and very less. Factors that can affect differences in student abilities, such as students' lack of accuracy in reading and understanding sentences in story problems, some do not master the material so it is difficult to find the right solution, and some students experience problems when doing calculations. On average, students are able to perform some of Polya's steps correctly, but still need further practice and reinforcement at certain stages and need to be supported by a stronger understanding of concepts and an increase in student literacy skills. Students who can understand and master literacy skills can help in solving mathematical problems that they often encounter in life (Hazimah & Sutisna, 2023).

In the percentage above, students who fall into the very less category in the ability to solve story problems have the largest percentage of the entire sample. In this category, some students had difficulty in translating information into mathematical expressions because they did not understand exactly what was asked in the problem, errors in determining the correct formula, and were not accustomed to writing conclusions. This causes errors during the process of solving story problems. Students who experience problems in learning mathematics usually make mistakes such as counting errors, especially when working on story problems (Hazimah & Sutisna, 2023).

Some students in this study scored higher at the stage of implementing the plan than at the stage of understanding the problem, this was influenced by a lack of conceptual understanding of the material. According to Sulistiyorini and Setyaningsih (2017) research, students have difficulty understanding problems due to a lack of understanding of concepts and have not been able to interpret the sentences used in story problems. This causes errors when identifying information presented in story problems. Another influencing factor is students' habits in communicating in writing. These students usually follow the predetermined solution steps without writing down the known information in the story problem. Students who carry out the plan well usually follow the procedures that have been taught, but are not accustomed to understanding and formulating problems independently. This was observed by the researcher, during the field repeatedly the student asked whether to write known and asked on the answer sheet. Muljo (2022) research also states that

students who have oral and written communication skills are better at solving problems, are more interested when facing challenges, and have a willingness to find solutions.

In this study also found students who scored higher at the stage of understanding the problem than at the stage of implementing the plan. This is due to limited conceptual understanding that causes students to only write known information and questions on the answer sheet without solving the story problem as a whole. In line with the research of Rismadani et al. (2021) which states that the obstacles experienced by students when solving math story problems are due to low numeracy skills and lack of understanding of concepts. As a result, they have difficulty identifying the right calculation operations and ultimately only record the information they know and the questions asked, without solving the problem as a whole.

To overcome this problem, it is recommended that teachers use strategies in learning that focus on improving students' concept understanding and encourage their involvement in a systematic problem- solving process. A teaching approach that emphasizes understanding of concepts, relationships between concepts, and practice in formulating and understanding problems independently can help students to improve their ability to understand problems and apply solutions more effectively. In addition, teachers must be flexible in seeing students' ability to communicate in writing in expressing their reasoning. Teachers must foster a supportive learning environment and act as facilitators to help achieve the goals of mathematics learning, especially in developing students' mathematical communication skills (Nuraeni & Luritawaty, 2016). Furthermore, the results of the student response questionnaire after working on story problems with an ethnomathematics context can be seen in Table 4.

The term ethnomathematics was quite familiar to students before they worked on the story problems. This is based on the average score of 1.68 on a scale of 2 which shows that most students have heard the term ethnomathematics before. The use of story problems related to culture was often found by students, getting an average score of 3.11 on a scale of 5 for the response to this question. This shows that some students' interaction with story problems related to culture has occurred, although there are still students who rarely find story problems with cultural contexts. The use of cultural context in math story problems can be a more contextual and meaningful learning experience for students.

Table 4. Student Response Questionnaire Results

Statement	Score	Frequency	Percentage (%)	Average
Never heard of ethnomathematics before working on story problems	1	6	31,60	1,68
	2	13	68,40	
Often find math story problems related to regional culture	1	1	5,30	3,11
	2	5	26,30	
	3	6	31,60	
	4	5	26,30	
	5	2	10,50	
Story problems with an ethnomathematical context are more interesting than ordinary story problems	1	0	0	4,05
	2	0	0	
	3	2	10,50	
	4	14	73,70	
	5	3	15,80	
It is easier to understand story problems that use ethnomathematics context	1	0	0	3,21
	2	4	21,10	
	3	9	47,40	
	4	4	21,10	
	5	2	10,50	
Story problems with an ethnomathematical context help in applying mathematical concepts better	1	0	0	3,89
	2	2	10,50	
	3	3	15,80	
	4	9	47,40	
	5	5	26,30	

Students also showed interest in story problems with an ethnomathematical context. The average score obtained was 4.05 on a scale of 5, which means that students felt that the story problem was more interesting than the usual story problem. This is indicated by the presence of cultural elements that are in accordance with their daily lives such as pictures of typical South Kalimantan cakes, thus increasing students' interest in participating in learning. In addition, students found it quite easy to understand story problems with an ethnomathematics context, with an average score of 3.21 on a scale of 5. The ethnomathematics context in the problem seems to help students connect mathematical concepts with real situations, although comprehension challenges still exist for some students. The application of mathematical concepts through story problems with ethnomathematics contexts was also considered effective, with an average score of 3.89 on

a scale of 5. This shows that the use of problems with ethnomathematics contexts can help students understand and apply mathematical concepts better, and encourage them to see the application of mathematical concepts in their lives.

Culture and mathematics are closely interconnected in everyday life. By incorporating ethnomathematics concepts, students will gain an understanding of the relationship between culture and mathematics. Based on the questionnaire results, students showed greater interest in story problems with an ethnomathematics context. Increased student interest in the ethnomathematics context will help create a more enjoyable learning environment. This is in line with the research of Soebagyo et al. (2021), which states that one of the benefits of learning with an ethnomathematics context is to help students understand mathematics, thus making the learning experience more enjoyable. By integrating cultural elements into story problems, students gain new learning experiences and more easily understand math problems, because they are related to real-life situations that are familiar to them. Overall, the use of ethnomathematics contexts in story problems proved more effective in helping students understand and apply mathematical concepts.

Conclusion and Suggestion

Polya's steps contain four stages, namely the first stage of understanding the problem, the second stage of planning the solution, the third stage of implementing the plan, and the fourth stage of checking back. In this study, the categories of students' abilities at each Polya stage are consecutively less, very less, sufficient, and very less. So, the ability of fifth-grade students of an elementary school in Banjarmasin City in solving story problems with an ethnomathematics context based on Polya's steps is in the less category. Then, the use of the ethnomathematics context in learning shows a positive response from students. Overall, this approach proved effective for use in learning mathematics.

Based on the results of the study, students are advised to improve their mathematical literacy skills by being more careful in reading story problems, recording known information, planning solutions before calculating, and re-examining work results to be more focused. Then, teachers can utilize the findings of this study to design more effective learning, such as applying problem-based learning and Polya's stages routinely, while strengthening the ethnomathematics context so that students more easily understand relevant everyday problems. In addition, future researchers can expand the research by

involving subjects from different grade levels or schools and using more diverse instruments, such as interviews, to explore students' understanding in depth and make a wider contribution to the development of ethnomathematics-based mathematics learning.

References

Afiah, N. (2018). Analisis Kemampuan Siswa Dalam Memecahkan Masalah Dalam Bentuk Soal Cerita Bangun Datar Menggunakan Tahapan Polya Di SD Al-Hikmah Simo Kalangan Surabaya. *Repository Unusa*.

Ariani, Y., & Kenedi, A. K. (2018). Model Polya Dalam Peningkatan Hasil Belajar Matematika Pada Pembelajaran Soal Cerita Volume Di Sekolah Dasar. *Jurnal Inspirasi Pendidikan*, *8*(2), 25–36. http://ejournal.unikama.ac.id/index.php/jrnspirasi

Asman, N. E., & Ariani, Y. (2020). Model Polya Terhadap Hasil Belajar Soal Cerita Penjumlahan dan Pengurangan Pecahan Kelas V SD. *Journal of Basic Education Studies*, *3*(2), 279–290.

Asrofiyah, R., Rahmawati, I., & Cahyadi, F. (2022). Analisis Kesulitan Siswa dalam Menyelesaikan Soal Cerita Matematika Berdasarkan Langkah Polya Materi Volume Kelas V SD Negeri 1 Rajekwesi Jepara. *Wawasan Pendidikan*, *2*(1), 49–60. https://doi.org/10.26877/wp.v2i1.9617

Doko, M. G. D., Sumadji, & Farida, N. (2020). Analisis Kemampuan Pemecahan Masalah Matematika Siswa Berdasarkan Tahapan Polya Materi Segiempat. *Rainstek (Jurnal Terapan Sains & Teknologi)*, *2*(3), 228–235.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. https://doi.org/10.11648/j.ajtas.20160501.11

Faridhatijannah, E., Untu, Z., & Fendiyanto, P. (2022). Kemampuan menyelesaikan soal cerita matematika pada siswa berkepribadian ekstrovert dan introvert. *Aksioma: Jurnal Matematika Dan Pendidikan Matematika*, *13*(2), 325–330.

Fauziah Hazimah, G., & Sutisna, R. (2023). Analisis Faktor yang Mempengaruhi Rendahnya Tingkat Pemahaman Numerasi Siswa Kelas 5 SDN 192 Ciburuy. *Jurnal Pemikiran Dan Penelitian Pendidikan Dasar*, *7*(1), 10–19. https://doi.org/10.52266/Journal

Muljo, A. (2022). Keterampilan Komunikasi untuk Meningkatkan Kemampuan Pemecahan Masalah Pola Bilangan. *Jurnal Pendidikan, Sosial Dan Kebudayaan* , *9*(2), 282–301. https://doi.org/10.32505/tarbawi.v9i2.4997

Nirfayanti, Ernawati, & Lismayanti. (2022). Kemampuan Menyelesaikan Soal Cerita Matematika dengan Model Pembelajaran Cooperative Integrated Reading and Composition. *Math Didactic: Jurnal Pendidikan Matematika*, *8*(3), 284–295. https://doi.org/10.33654/math.v8i3.1941

Nugroho, S., Siswanto, J., & Nuroso, H. (2023). Analisis Kemampuan Menyelesaikan Soal Cerita. *Jurnal Ilmiah Pendidikan Dasar*, *8*(1), 5064–5072.

Nuraeni, R., & Luritawaty, I. P. (2016). Mengembangkan Kemampuan Komunikasi Matematik Siswa melalui Strategi Think Talk Write. *Jurnal Pendidikan Matematika STKIP Garut* , *5*(2), 4280.

Nurvaida, D., Amin, S. M., Nafiah, N., & Hartatik, S. (2023). Analisis Kemampuan Siswa Kelas IV SD dalam Menyelesaikan Soal Cerita Matematika pada Topik FPB dan KPK. *Fondatia*, *7*(3), 640–659. https://doi.org/10.36088/fondatia.v7i3.3761

Pellokila, H. A., Amsikan, S., & Mamoh, O. (2020). Profil Kemampuan Siswa Dalam Menyelesaikan Soal Cerita Matematika Pada Materi Bentuk Aljabar Ditinjau Dari Perbedaan Gender Siswa Kelas SMP. *MATH-EDU: Jurnal Ilmu Pendidikan Matematika*, *5*(3), 100–111. https://doi.org/10.32938/Hieronimus

Polya, G. (1973). *How to Solve It*. Princeton University Press.

Rahmawati, L., Zaenuri, & Hidayah, I. (2023). Pembelajaran Bernuansa Etnomatematika Sebagai Upaya Menumbuhkan Karakter Cinta Budaya dan Kemampuan Pemecahan Masalah Matematis. *Journal of Authentic Research on Mathematics Education*, *5*(1). https://doi.org/10.37058/jarme.v5i1.5984

Rismadani, R. A., Artharina, F. P., & Cahyadi, F. (2021). Kesulitan Siswa Menyelesaikan Soal Cerita Matematika Pada Materi Pecahan Kelas V SDN Jomblang 03 Semarang Berdasarkan Langkah-Langkah Pemecahan Masalah Menurut Polya. *Dwijaloka Jurnal Pendidikan Dasar & Menengah*, *2*(3), 266–274.

Rofi'ah, N., Ansori, H., & Mawaddah, S. (2019). Analisis Kesalahan Siswa dalam Menyelesaikan Soal Cerita Matematika Berdasarkan Langkah Penyelesaian Polya. *EDU-MAT: Jurnal Pendidikan Matematika*, *7*(2), 120. https://doi.org/10.20527/edumat.v7i2.7379

Shalihah, K., Agustiningsih, & Alfarisi, R. (2022). Analisis Kesalahan Siswa dalam Menyelesaikan Soal Cerita Bangun Datar Berdasarkan Langkah Penyelesaian POLYA. *Journal Of Mathematics Education And Learning*, *2*(3), 293–300. https://doi.org/10.19184/jomeal.v2i3.35229

Soebagyo, J., Andriono, R., Razfy, M., & Arjun, M. (2021). Analisis Peran Etnomatematika dalam Pembelajaran Matematika. *ANARGYA: Jurnal Ilmiah Pendidikan Matematika*, *4*(2), 184–190. https://doi.org/10.24176/anargya.v4i2.6370

Sulistiyorini, & Setyaningsih, N. (2017). Analisis Kesulitan Siswa dalam Pemecahan Masalah Soal Cerita. *Seminar Nasional Pendidikan Matematika 2016*, 1–9.

Utami, N. D. (2024). Penerapan Pendekatan Kontekstual untuk Meningkatkan Kemampuan Pemecahan Masalah Matematis Siswa Sekolah Dasar. *Jurnal Pendidikan Guru Sekolah Dasar*, *1*(2), 1–9. https://doi.org/10.47134/pgsd.v1i2.134

Wasiah, R., Witri, G., & Antosa, Z. (2020). Analisis Kemampuan Siswa Menyelesaikan Soal Cerita Pada Pembelajaran Matematika di Kelas IV SDN 9 Bukit Batu, Riau. *Jurnal Inovasi Pendidikan Dan Pembelajaran Sekolah Dasar*, *4*(2), 33–43. http://ejournal.unp.ac.id/index.php/jippsd

Yosua, & Rusmana, I. M. (2021). Analisis Kemampuan Siswa Dalam Menyelesaikan Soal Cerita Matemarika di SMP Kartika VIII-1 Jakarta. *Lebesgue: Jurnal Ilmiah Pendidikan Matematika, Matematika Dan Statistika*, *2*(3), 225–233. https://doi.org/10.46306/lb.v2i3