e-ISSN: 2808-8263
p-ISSN: 2829-0976

Analysis of Students' Ability in Solving Numeracy Problem

Enung Siti Nurfarijah[1*],Tatang Herman[2]

[1,2]Universitas Pendidikan Indonesia, Pendidikan Dasar, Bandung,

*enungsitinurfarija@upi.edu

Abstract. Numeracy plays a crucial role in equipping students with fundamental mathematical skills essential for daily life and understanding more complex mathematical concepts in the future. The challenges faced by elementary school students in developing numeracy literacy may involve grasping mathematical concepts, applying them in real-life situations, and solving mathematical problems. However, in reality, based on previous research, students encounter difficulties in solving numeracy literacy problems. Given these challenges, there is a need for further research. The objective of this study is to investigate students' abilities and difficulties in solving mathematical problems. This qualitative descriptive research aims to depict and evaluate students' numeracy literacy skills when tackling contextual mathematical problems. The subjects of this study are five fifth-grade students from an elementary school in Bandung, West Java. These students are divided into three groups based on their mathematical proficiency levels: high, medium, and low. The research findings indicate that the majority of students face challenges in answering numeracy literacy questions. Factors contributing to difficulties in solving numeracy literacy problems include lack of careful reading and analysis of the problems, unfamiliarity with solving analysis-related questions, and insufficient basic mathematical skills. This research is expected to help assess students' numeracy literacy skills and provide a better understanding of how well students can apply mathematical concepts in real-world contexts.

Keywords: Analysis; problem-solving skills; numeracy

How to Cite: Nurfarijah, E. S., & Herman, T. (2025). Analysis of students' ability in solving numeracy problems. *The 7th International Conference on Elementary Education,* 7(1), 234-245.

INTRODUCTION

The quality of human resources (HR) is closely tied to education, particularly in the Society 5.0 era, where advancements in science and technology are rapidly evolving. Education serves as a key factor in preparing individuals to navigate these developments while ensuring their ability to adapt and thrive in modern society (Amaliyah & Fathurohman, 2022). A crucial aspect of this preparation is equipping students with essential skills to tackle future challenges effectively. Among these, the 4C skills—Creativity, Critical Thinking, Communication, and Collaboration—are vital and are often referred to as 21st-century life skills (Ahmad, 2019; Astuti et al., 2019; Bolger, 2014; Fitriati et al., 2024; Mylopoulos et al., 2016; Smith & Tyler, 2011; Tan et al., 2017). These competencies align with national education goals, which focus on fostering intellectual growth, developing character, and instilling cultural values that contribute to national progress.

Furthermore, literacy skills are fundamental in today's era of disruption, where digital transformation is reshaping industries and daily life. Students must develop a strong foundation in literacy to remain relevant in the modern world. In this context, 16 essential skills have been identified as necessary for students to maintain their competitiveness and adaptability. Among these, basic literacy skills are particularly important, as they need to be applied in real-world situations. Students must cultivate the ability to navigate complex challenges and respond effectively to the continuous changes occurring in society ((Sekolah

Dasar, 2016)., (Hilal Hidayat et al., n.d.)., (Jatinangor & Sumedang, n.d.)., and (Fairuz Husna et al., n.d.)).

As scientific and technological advancements accelerate, students are required to master six core aspects of literacy. These include digital literacy, which enables them to engage with technology effectively, and scientific literacy, which enhances their understanding of scientific principles and processes. Additionally, cultural literacy helps students appreciate and adapt to diverse cultural contexts, while financial literacy equips them with essential economic and financial management skills. Numeracy is also crucial, providing students with the ability to analyze and interpret numerical data. The most fundamental literacy skills, however, remain reading and writing, which serve as the foundation for all other forms of knowledge acquisition.

Beyond these core literacy skills, students are also expected to develop supplementary competencies such as critical thinking, logical reasoning, creativity, communication, collaboration, and problem-solving abilities. These skills are essential for students to effectively navigate the complexities of the modern world, enabling them to think independently, engage in meaningful discussions, and contribute productively to society. By mastering these competencies, students can become well-rounded individuals who are prepared for both academic and professional success in an increasingly digital and interconnected world.

Numeracy skills, or mathematical literacy, have become essential for students to navigate the evolving world today. This mathematical literacy competence enables students to apply mathematical concepts in everyday life using various effective and efficient methods to solve problems, make logical assessments, and conduct analyses leading to the conclusion stage (Genc & Erbas, 2019).

Numeracy is a skill that encompasses the knowledge, skills, behavior, and attitudes needed by students to apply mathematics in various broader contexts and situations, as stated by Pusmenjar (in Utaminingsih & Subanji, 2021). The evaluation of students' mathematical literacy can be observed through their ability to apply mathematical knowledge and skills in the context of everyday problems (Afriansyah, 2016; Muzaki & Masjudin, 2019; Lestariningsih, Nurhayati, & Cicinidia, 2020). Despite the importance of mathematical literacy, this has not been accompanied by strong student achievement outcomes in Indonesia (Dewi & Afriansyah, 2018; Prabawati, Herman, & Turmudi, 2019).

In the process of learning mathematics, students often encounter difficulties in solving problems, as highlighted by Afriansyah (2013), Agnesti & Amelia (2020), and Septiahani, Melisari, & Zanthy (2020). Cooney (in Abdurrahman, 2012) classifies learning difficulties into three types: difficulties in understanding concepts, difficulties in applying principles, and difficulties in solving verbal problems. Difficulties in understanding concepts may arise when

students hesitate to ask questions during explanations and fail to grasp the material. Difficulties in applying principles often stem from a lack of understanding of the basic concepts underlying those principles. Meanwhile, difficulties in solving verbal problems involve challenges in comprehending word problems, typically caused by students' inability to understand the given information, the questions being asked, and difficulties in converting problem sentences into mathematical models.

Mathematical literacy involves mathematical reasoning by using concepts, procedures, facts, and mathematical tools to describe, explain, and predict phenomena (PISA 2018 Assessment and Analytical Framework, 2019). Based on research conducted by the Trends in International Mathematics and Science Study (TIMSS) in 2015 and the Program for International Student Assessment (PISA) in 2018, the mathematical literacy skills of Indonesian students are still considered low.

The low numeracy skills among elementary school students in Indonesia, particularly in the context of TIMSS (Trends in International Mathematics and Science Study) mathematics problems, indicate an urgent need to improve the quality of mathematics education in schools. Based on data collected by TIMSS in 2015, Indonesia ranked 44th out of 49 countries with an average score of 397, significantly below the international average score of 500. This shows that Indonesian students' mathematical literacy remains at a low level or "Low Benchmark." Indonesian students generally possess only basic skills, such as addition, subtraction, and simple multiplication, while their ability to solve problems requiring conceptual understanding and higher-order thinking is still limited (Mullis et al., 2016).

Research by Witri, Putra, and Gustina (2022) conducted in Pekanbaru shows that the average student ability to solve TIMSS-style mathematics problems is 445, with a standard deviation of 112, indicating that they could answer only about 50% of the questions provided. This study highlights that many students experience difficulties with problems involving geometry, measurement, data presentation, and reasoning aspects that require logical and analytical thinking. Students face particular challenges with problems that demand conceptual understanding and higher-order thinking skills (HOTS).

According to Gais and Afriansyah (2017), several factors contribute to students' difficulties in solving HOTS problems, including a lack of accuracy in reading and understanding questions, low initial mathematical ability, and suboptimal learning processes in schools. Other factors include limited comprehension of the questions, inability to fully read questions, and lack of parental attention and support. These factors affect students' mathematical development, as they need support from both the school environment and family to understand more complex mathematical concepts.

Given these issues, research on students' abilities and challenges in solving numeracy problems is crucial. This study aims to identify students' skill levels in solving numeracy problems and understand the obstacles they face in this process. The results of this study are expected to provide a better understanding of the difficulties students encounter in solving mathematical problems and the extent to which they can apply mathematical concepts in real-life contexts. Additionally, this research aims to provide insights for teachers and parents to help improve students' mathematical literacy, whether through more interactive learning approaches or by offering learning support at home.

Improving students' numeracy skills requires a learning approach oriented towards developing critical thinking skills and conceptual understanding, as well as active involvement from various parties, including teachers, schools, and parents. In this effort, integrating technology and practical learning experiences may also be beneficial, as it encourages students to engage with math more effectively. A deeper understanding of mathematical material and support from their environment are expected to help students develop the skills they need to face future challenges, especially in the increasingly competitive global era.

METHODOLOGY

This section of the research is a descriptive qualitative study aimed at describing and evaluating students' numeracy skills while solving contextual mathematical problems. Qualitative research methods are often referred to as naturalistic research methods because the research is conducted in natural settings (Sugiono, 2021).

The subjects of this study are five fifth-grade students from an elementary school in Bandung, West Java. These students are divided into three groups based on their mathematical abilities: a high ability group, a medium ability group, and a low ability group.

Students' abilities in solving numeracy literacy problems will be tested and observed naturally, based on written tests and interviews. The data will be analyzed in detail to gain a deeper understanding. The focus of the research is limited to the ability to solve mathematics problems related to everyday life concerning numerical elements. The questions administered to students will consist of five items in the form of descriptive questions, multiple-choice questions, and complex multiple-choice questions, which will then be examined and analyzed.

Here is the scoring criteria guideline for students' answers for each item:

Table 1. Scoring Criteria Guideline for Students' Answers for Each Item.

Criteria	Score
No answer	0

Wrong answer, no solution steps provided	1
Wrong answer, but solution steps are provided	2
Correct answer, but incomplete solution steps	3
Correct answer, complete solution steps provided	4

The technique for qualitative descriptive data analysis involves the following stages: 1. Data Reduction. Data reduction is performed to eliminate unnecessary data. The aim is to ensure that the analyzed data is more precise.2. Data Presentation. All information obtained from the research subjects is organized and presented in a way that is more practical and easy to read.3. Conclusion.This stage is a concise summary derived from the data reduction and data presentation phases, organized into brief yet meaningful statements with broad implications.

RESULTS AND DISCUSSION

To assess students' numeracy skills, the researcher provided five test questions to five students. The questions were word problems related to everyday life involving numerical elements. Questions number 1, 3, and 5 were in essay format, question number 2 was multiple-choice, and question number 4 was a complex multiple-choice question.

Below is the score table from the written test taken by six students. This table is intended to display the test scores obtained by the students in answering questions related to numerical concepts. Using these scores, we can determine the extent of students' abilities in answering numeracy problems. The lower the score obtained by the students, the greater the difficulties they experienced in solving numeracy tasks.

Table 2. Numeracy Ability Test Scores from The Research

Student Name	Question Number					Total Score
	1	2	3	4	5	
A	3	1	1	1	1	7
B	4	2	1	2	3	12
C	3	1	1	2	1	8
D	3	2	1	2	4	12
E	4	1	1	2	1	9

Based on the results of the numeracy ability test conducted on five fifth-grade students from an elementary school in Bandung, West Java, the average score obtained was 9.6 out of a maximum score of 20, indicating that the students' accuracy in answering the questions was 48%. The detailed breakdown of the test results is as follows:

For question number 1, a word problem essay about addition, it was found that two students answered the question correctly along with their solutions, while three students answered

correctly but did not provide their solution steps. Here is the instrument for question number 1:

Question No. 1

Mr. Amar is a flower seller. Now Mr. Amar has 84 roses and 59 jasmine flowers. So the total number of flowers that Mr. Amar has is ....

Question No. 2

Cross out the most correct answer with the letter A, B, C, or D!

Look at the following picture of jelly candies!

Based on the picture above, the correct statement is ....

A. The number of red candies is equal to the number of orange candies + the number of yellow candies.

B. The number of red candies is equal to the number of orange candies + the number of green candies.

C. The number of red candies is equal to the number of orange candies + the number of purple candies.

D. The number of red candies is equal to the number of green candies + the number of yellow candies.

For question number 2, which was presented in multiple-choice format, a picture of several jelly beans in various colors was shown. Students were asked to observe and analyze the image and then choose the correct statement based on it. In this question, none of the students answered correctly; three students merely crossed out their answers, and two students wrote down their solution steps.

Question No. 3

Danu, Ridwan, and Alden practice futsal in the same gym. On Sunday, March 7, 2022, they practiced together for the first time. Their training schedules are different: Danu practices every 3 days, Ridwan practices every 4 days, and Alden practices every 6 days. On what day, date, month, and year will they practice together for the second time?

For question number 3, which was an essay-type question, the problem was a word problem about LCM (Least Common Multiple). In answering this question, all five students provided incorrect answers. Each of the five students received a score of 1 because their answers were partially correct and they did not provide explanations for their reasoning.

Question No. 4

When Jahira has a birthday, she buys some food to share with her friends. The food consists of:

24 chocolate candies

12 cheese cakes

36 biscuits

If all the food is to be distributed equally among her friends, look at the following statements that are correct and put a checkmark (√):

- ☐ Each child gets 3 chocolates.
- ☐ Each child gets 1 cheese cake.
- ☐ Each child gets 4 biscuits.
- ☐ Each child gets 2 chocolate milk.
- ☐ The food will be distributed to 3 friends.
- ☐ The food will be distributed to 12 friends.

For question number 4, the answer is in the form of a complex multiple-choice question. In complex multiple-choice answers, there are more than one correct answer. The question is a story problem involving GCF (Greatest Common Factor). In answering question number 4, four students each answered 1 correct answer out of 2 correct answers.

Question No. 5

The distributor store "Murah Meriah" is a shop that produces its own goods for sale, such as bags, clothes, wallets, and shoes. The store offers special prices for customers who purchase more items in the form of discounts as follows:

Sarah brought an amount of Rp150,000.00 to buy several items at the distributor store "Murah Meriah." If Sarah receives a discount, the discount Sarah receives is ...%.

For question number 5, the answer is in the form of an explanation. The question presents a story problem about a store that offers special prices for customers who buy more items in the form of discounts. In addition to the story, an image of the price tag and discount is provided. Students are asked to select the appropriate percentage of the discount based on the question. In answering this question, 1 student scored 4, meaning that the student was able to answer correctly along with the solution method. 1 student answered correctly but did not provide an explanation. 2 students answered incorrectly and did not write down the solution method.

In addition to analyzing each individual question, the author analyzes the abilities or difficulties of each student in answering the presented numeracy questions through interviews with students who have taken the test. Student A received the lowest score of 7 out of a maximum score of 20. This means that Student A was able to answer 35% of the numeracy literacy questions correctly and had difficulty with 65% of the numeracy questions. Based on the test results and interviews, Student A had difficulty answering questions number 2, 3, 4, and 5. The student was only able to answer question number 1 because it was a story problem that involved only addition, making it easier for Student A to answer. In contrast, for questions number 2, 3, 4, and 5, the student experienced difficulties because they did not understand the direction of the questions. Student A found it easier to solve problems in the form of mathematical symbols or numbers compared to problems presented in the form of stories or images.

Student B scored 12 out of a maximum score of 20. This means that the student was able to answer 60% of the numeracy questions correctly and had difficulty with 40% of the numeracy questions. The score obtained by Student B is the highest compared to the scores of the other three friends. Similar to Student A, Student B could easily answer question number 1 but had difficulty answering questions number 2, 3, and 4. The student was not careful in examining the image in question number 2 because answering this question required careful analysis of the image and attention in selecting statements. For questions 3 and 4, Student B felt that they had never encountered similar problems before, which prevented them from solving these questions. In answering question number 5, Student B responded by making predictions based on the image they observed. In terms of answering questions, like Student A, Student B was more capable of solving problems in the form of mathematical symbols or numbers compared to problems presented in the form of stories or images.

Student C scored 8 out of a maximum score of 20. This means that the student was able to answer 40% of the numeracy questions correctly and had difficulty with 60% of the numeracy questions. Student C could easily answer question number 1 correctly but struggled to answer questions number 2, 3, 4, and 5 correctly. For question number 4, the student could only provide 1 correct answer out of 2 correct answers. The reason Student C found it difficult to answer the questions was due to a lack of preparation for the test, which led to confusion in solving the problems. Student C tends to find it easier to solve math problems when presented in the form of mathematical sentences or numbers, rather than story problems or illustrated questions that require analysis.

Student D scored 12 out of a maximum score of 20. This means that the student was able to answer 60% of the numeracy questions correctly and had difficulty with 40% of the numeracy questions. Student D could easily answer questions number 1 and 5 correctly but struggled with questions number 2, 3, and 4. For question number 1, there was a minor mistake due to a lack of attention in calculating, but the student had a good understanding of the question and the problem-solving method. Student D answered question number 5 with the correct steps but was not careful in analyzing the image in question number 2, resulting in an incorrect answer. The student did not understand how to solve the problems related to LCM (question number 3) and GCF (question number 4) due to a lack of preparation for the test.

Student E scored 9 out of a maximum score of 20. This means that the student was able to answer 45% of the numeracy questions correctly and had difficulty with 55% of the numeracy questions. The student did not have difficulty answering question number 1 but felt challenged when answering questions number 2, 3, 4, and 5. Student E struggled with questions that required analyzing images, specifically in questions number 2 and 5, while for questions

number 3 and 4, they found it difficult to provide correct answers because they felt they had not been taught this material in grade 5, even though it had been taught in grade 4.

CONCLUSION

The numeracy assessment of five students revealed significant variations in their ability to understand and solve mathematical problems. The students' scores ranged from 7 to 12, reflecting differences in their mastery of numeracy concepts. Students generally felt more comfortable solving problems in the form of symbols or numbers, while story problems and picture analysis posed challenges, particularly on specific questions such as picture analysis (questions 2 and 5), understanding the context of stories (questions 2, 3, 4), and certain mathematical concepts (questions 3 and 4). Additionally, a lack of preparation and attention to detail also affected their performance. To improve numeracy skills, teachers are advised to implement differentiated teaching approaches to tailor materials to students' abilities and learning styles. A diverse program of practice problems, especially those involving story problems and picture analysis, should be supported by educational policies to train students to handle various types of problems. Furthermore, teachers can develop project-based strategies that emphasize precision and student motivation. Teacher training in the use of creative methods, such as problem-based learning or technology integration, is also essential for enhancing teaching effectiveness. Regular evaluations of learning outcomes should be conducted to identify students' difficulties early and devise more effective teaching plans. With this approach, students' numeracy skills can be improved holistically and equitably.

ACKNOWLEDGMENTS

The author expresses appreciation to the editorial team for the critiques, suggestions, and improvements provided for this article. The author also thanks all parties who contributed to the preparation of this article, especially the Primary Education Study Program at the Universitas Pendidikan Indonesia, which provided the facilities that enabled this research to be conducted successfully.

REFERENCES

Afriansyah, E. A. (2016). Enhancing Mathematical Problem Posing via Realistic Approach. International Seminar on Mathematics. Science, and Computer Science Education MSCEIS.

Ahmad, T. (2019). Scenario based approach to re-imagining future of higher education which prepares students for the future of work. *Higher Education, Skills and Work-Based Learning*, *10*(1), 217–238. https://doi.org/10.1108/HESWBL-12-2018-0136

Ahmad, T. (2019). Scenario based approach to re-imagining future of higher education which prepares students for the future of work. *Higher Education, Skills and Work-Based Learning*, *10*(1), 217–238. https://doi.org/10.1108/HESWBL-12-2018-0136

Amaliya, I & Fathurohman I. (2022). Analisis Kemampuan Literasi Matematika Ditinjau dari Gaya Belajar Siswa Sekolah Dasar: Jurnal Riset Pendidikan Dasar, 05 (1), (2022) 45-56. JRPD (Jurnal Riset Pendidikan Dasar) (unismuh.ac.id)

Astuti, A. P., Aziz, A., Sumarti, S. S., & Bharati, D. A. L. (2019). Preparing 21st Century Teachers: Implementation of 4C Character's Pre-Service Teacher through Teaching Practice. *Journal of Physics: Conference Series*, *1233*(1), 012109. https://doi.org/10.1088/1742-6596/1233/1/012109

Astuti, A. P., Aziz, A., Sumarti, S. S., & Bharati, D. A. L. (2019). Preparing 21st Century Teachers: Implementation of 4C Character's Pre-Service Teacher through Teaching Practice. *Journal of Physics: Conference Series*, *1233*(1), 012109. https://doi.org/10.1088/1742-6596/1233/1/012109

Bolger, J. (2014). Video self-modelling and its impact on the development of communication skills within social work education. *Journal of Social Work*, *14*(2), 196–212. https://doi.org/10.1177/1468017313476982

Bolger, J. (2014). Video self-modelling and its impact on the development of communication skills within social work education. *Journal of Social Work*, *14*(2), 196–212. https://doi.org/10.1177/1468017313476982

Fitriati, F., Rosli, R., Iksan, Z., & Hidayat, A. (2024). Exploring challenges in preparing prospective teachers for teaching 4C skills in mathematics classroom: A school-university partnership perspectives. *Cogent Education*, *11*(1). https://doi.org/10.1080/2331186X.2023.2286812

Fitriati, F., Rosli, R., Iksan, Z., & Hidayat, A. (2024). Exploring challenges in preparing prospective teachers for teaching 4C skills in mathematics classroom: A school-university partnership perspectives. *Cogent Education*, *11*(1). https://doi.org/10.1080/2331186X.2023.2286812

Gais, Z. & Afriansyah, E.A. (2017). Analisis Kemampuan Siswa dalam Menyelesaikan Soal High Order Thinking Ditinjau dari Kemampuan Awal Matemati: Jurnal Mosharafa, Volume 6, Nomor 2, Mei 2017.

Genc, M. & Erbas, A. K. (2019). Secondary Mathematics Teachers' Conceptions of Mathematical Literacy. International Journal of Education in Mathematics, Science and Technology (IJEMST), 7(3), 222–237.

Kurniawati, R., Bintoro, H.S. & Ulya, H. (2022). Analisis Kemampuan Siswa Sekolah Dasar dalam Menyelesaikan Soal-Soal Matematika Model The Trends For International Mathematics And Scinece Study (Timss) di Pekanbaru: Jurnal Primary Program Studi

Mullis, I. V. S., Martin, M. O., & Foy, P. (2016). TIMSS 2015 International Results in Mathematics. TIMSS & PIRLS International Study Center.

Mylopoulos, M., Brydges, R., Woods, N. N., Manzone, J., & Schwartz, D. L. (2016). Preparation for future learning: a missing competency in health professions education? *Medical Education*, *50*(1), 115–123. https://doi.org/10.1111/medu.12893

OECD. 2019a. PISA 2018: Assessment and Analytical Framework. Paris: OECD Publishing.

Pendidikan Guru Sekolah Dasar Fakultas Keguruan dan Ilmu Pendidikan Universitas Riau | Volume 3 Nomor 1, April 2014 | ISSN: 2303-1514 |

Prabawati, M. N., Herman, T., & Turmudi, T. (2019). Pengembangan Lembar Kerja Siswa Berbasis Masalah dengan Strategi Heuristic untuk Meningkatkan Kemampuan Literasi Matematis. Mosharafa: Jurnal Pendidikan Matematika, 8(1), 37-48.

Sekolah Dasar, D. (2016). 301 Multimedia Dalam Pengembangan Literasi Di Sekolah Dasar Terpencil Jawa Barat Multimedia In Literacy Development At Remote Elementary Schools In West Java Multimedia Dalam Pengembangan Literasi. Tahun, 15(3).

Smith, D. D., & Tyler, N. C. (2011). Effective inclusive education: Equipping education professionals with necessary skills and knowledge. *PROSPECTS*, *41*(3), 323–339. https://doi.org/10.1007/s11125-011-9207-5

Sugiyono. (2021). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta CV.

Tan, J. P.-L., Choo, S. S., Kang, T., & Liem, G. A. D. (2017). Educating for twenty-first century competencies and future-ready learners: research perspectives from Singapore. *Asia Pacific Journal of Education*, *37*(4), 425–436. https://doi.org/10.1080/02188791.2017.1405475

Utaminingsih, R. & Subanji (2021). Analisis Kemampuan Literasi Matematika Peserta Didik pada Materi Program Linear dalam Pembelajaran Daring. ANARGYA: Jurnal Ilmiah Pendidikan Matematika, Vol.4 No.1 April 2021 p-ISSN: 2615-4196 e-ISSN: 2615-4072 http://jurnal.umk.ac.id/index.php/anargya

Witri, L., Putra, R. A., & Gustina, A. (2022). Analisis Kemampuan Siswa Sekolah Dasar dalam Menyelesaikan Soal Matematika Model TIMSS di Kota Pekanbaru. Jurnal Penelitian Pendidikan Dasar, 9(1), 65-73.

Yeni & Sukmawati, R. (2020). Analisis Kemampuan Representasi Matematis Mahasiswa Berdasarkan Motivasi Belajar: Mosharafa: Jurnal Pendidikan Matematika, Volume 9, Nomor 2, Mei 2020 Copyright © 2020 Mosharafa: Jurnal Pendidikan Matematika.Daftar pustaka diurutkan berdasarkan abjad, tanpa nomor urut, dan tidak dipisah antara sumber buku, online, dan lainnya.