Vygotsky: Jurnal Pendidikan Matematika dan Matematika
5 (2) August 2023, pp. 101- 112
E-ISSN: 2656-5846 P-ISSN: 2656-2286
Journal Page is available to
https://jurnalpendidikan.unisla.ac.id/index.php/VoJ

Analysis of Difficulties in Solving the Story Problem of a System of Two-Variable Linear Equations Based on Newman's Theory

Yesi Setyorini[1*], Slamet Hw[1]

[1] Department of Mathematics Education, Universitas Muhammadiyah Surakarta, Indonesia

**Email Correspondence:* a410180205@student.ums.ac.id

ARTICLE INFO

Article History

Received	:	05 Feb 2023
Revised	:	15 Feb 2023
Accepted	:	14 Aug 2023
Available Online	:	30 Aug 2023

Keywords:
Difficulty Analysis
A Matter of Stories
Newman's Theory

Please cite this article APA style as:
Setyorini, Y. & Hw, S. (2023). Analysis of Difficulties in Solving the Story Problem of a System of Two-Variables Linear Equations Based on Newman's Theory. *Vygotsky: Journal of Mathematics and Mathematics Education*, 5(2), pp. 101-112.

ABSTRACT

This research aims to describe students' difficulties in solving the story of a system of two-variable linear equations based on Newman's theory. This research is a qualitative research with a descriptive approach. Tests, interviews, and documentation are used as data collection processes. Data analysis techniques use data reduction, data presentation, and conclusions. The results of this research show that all mistakes based on Newman's theory are made by students. Final answer writing errors are the most common mistakes made by students with a percentage of 25.35%. Reading errors were made 15.04%, comprehension errors 16.16%, transformation errors 21.45%, and process skills errors 22.01%. Thus, students are expected to study harder and practice more questions to avoid mistakes in solving problems.

1. Introduction

Education is an important aspect of human life. Through education, one can change attitudes toward adulthood and can inspire oneself to become a better person (Kartika Dewi et al., 2020). As stated by Hi. Idris, et al., (2015) Education is a conscious effort in building human quality through a continuous process at all types and levels of education. Education is an effort to prepare students for community life either as individuals or community members through guidance and training activities.

Mathematics is the only subject taught to students to help them develop their analytical, logical, systematic, and creative thinking skills. (Pebriyani et al., 2020). According to Husna et al., (2019), Mathematics is a universal subject because it is

E-ISSN: 2656-5846
P-ISSN: 2656-2286

used as the basis for all other subjects. Many students view mathematics as an elusive subject. This is caused by the form of presentation that is less interesting and seems difficult to learn, making students feel bored and not respond well to lessons. Learning methods that are less varied and tend to limit students' creations in expressing their thoughts make a lack of interest in learning mathematics, resulting in less-than-optimal learning outcomes (Rohmah & Sutiarso, 2017).

To understand students' ability to handle a problem, story questions can be used as a source of information. According to Yovita, et al., (2021), story questions are a form of questions that present problems in everyday life in the form of narratives or stories. Compared with problems that display mathematical models directly, story problems are considered more difficult. Therefore, story questions are used to measure students' ability to basic mathematical concepts in the form of formula application questions. Problem-solving carried out by students requires several stages (Pradini et al., 2020). Story-solving requires proper procedures, analysis, and steps (A., 2018).

Student learning difficulties can affect the achievement of student learning outcomes. This difficulty occurs when students make mistakes in the process of solving questions (Hadi, 2021). One of the procedures used in solving mathematical problems is to use Newman's theory (NEA). NEA is a derivative of Newman Error Analysis, which is used to diagnose complex mathematical content problems (Octaviana, 2018).

The Newman procedure is a procedure used to analyze errors in the context of the presentation of a story. According to Newman (1977) when a person tries to answer a standard math question then that person must be able to pass several obstacles in a row. These hurdles are reading, comprehension, transformation, process skills, and coding (Kumar Jha, 2012). There are five stages in the analysis of Newman's theory, namely (a) Reading errors, which refer to a student's capacity to comprehend mathematical issues and recognize the terms and symbols they employ. (b) the misconception is the student's ability to understand mathematical problems, (c) transformation errors are the student's ability to determine the mathematical solving method used, (d) process skill errors are the student's ability in making mistakes in mathematical process skills, and (e) coding errors are students' ability to write coding errors that correspond to questions (Rohmah & Sutiarso, 2017).

Research related to the analysis of difficulties in solving mathematical problems based on Newman's theory has been carried out previously by several researchers. Mahmudah (2018) in his research obtained research results, namely the difficulty of understanding and the difficulty of transformation are more dominantly carried out by students compared to the difficulty of process skills and the difficulty of notation. The factor that causes such difficulties is the low reasoning ability and creativity of students in solving real context problems and manipulating them into algebraic forms. Murtiyasa & Wulandari, (2020) in their research obtained results that showed that based on Newman's theory reading errors were not made by students, but rather misunderstanding errors, transformation errors, and process errors and errors in writing the final answers made by students. Pereira et al., (2022) in their research obtained the results of research that showed that process skills errors are the most common mistakes made by students, caused by lack of practice on PISA questions which are international assessments, as well as students' weaknesses in mathematical ability

E-ISSN: 2656-5846
P-ISSN: 2656-2286

in real context forms.

The low learning outcomes achieved by students in mathematics subjects are also something that is behind this research. This is shown that during the process of teaching and learning activities, there are still many students who experience difficulties so student learning results are obtained which are still below the minimum completion criteria of 75.

Therefore, the purpose of this research is to describe the difficulty of students in solving story problems in the material of a system of two-variable linear equations based on Newman's theory.

2. Method

This research is qualitative research with a descriptive approach. Descriptive research leads to the systematic and accurate provision of symptoms, facts, or events, regarding the traits of a particular population. In this research, there is no need to find or explain reciprocal relationships and test hypotheses (Hardani et al., 2020). This research was conducted at SMP Negeri 1 Kerjo in the 2022/2023 school year, with the subject of the research, namely class VIII F students as many as 31 students who were assessed to be representatives of 220 class VIII students. The subjects in this research were grouped into 2, namely students with high mathematical abilities and students with low mathematical abilities who were classified based on the minimum completion criteria of 75.

The instrument in this research uses test questions in the form of stories with material on a system of linear equations of two variables. Before being tested on students, this research instrument is validated by a mathematics education lecturer and a mathematics subject teacher. Table 1. presented the Test instruments used in this research.

Table 1. A Story Problem of a System of Two-Variable Linear Equations

No.	A Story Problem of a System of Two-Variable Linear Equations
1.	Alesha and Tiara go to the "*Little Cake and Cookies*" cake shop. They bought the same two kinds of cakes, namely pineapple cakes and snow-white cakes. The price of a jar of pineapple cakes is equal to twice the price of a jar of snow-white cakes. If Alesha buys 3 jars of pineapple cakes and 2 jars of snow-white cakes for Rp. 240,000.00. How much money should a tiara pay if she buys 2 jars of pineapple cakes and 3 jars of snow-white cakes?
2.	Pak Surya is a parking boy in the Sragen market. He earned Rp. 25,000.00 from 5 motorcycles and 3 cars, while from 7 motorcycles and 2 cars, he earned Rp. 24,000.00. If there are 25 motorcycles and 5 cars, how much money does Mr. Surya get?
3.	Rini is 8 years younger than Joko's age. Five years ago, their total age was 44 years. How old are Rini and Joko now?

The data collection process used in this research is tests, interviews, and documentation. This interview was not conducted on all subjects the researcher only selected 2 students according to a predetermined group of 1 student each. The validity of the data is carried out by researchers using triangulation techniques, where the data is checked by checking the data to the same source with different techniques (Sutama, 2019).

E-ISSN: 2656-5846
P-ISSN: 2656-2286

The data analysis techniques used in this research are data reduction, data presentation, and conclusion. This data reduction is carried out to obtain core records that are considered necessary in the research. Furthermore, data presentation is carried out to see a certain picture by grouping and presenting data according to the subject matter. After that, the researcher concludes the overall research results. Difficulty indicators based on Newman's theory according to Kurniawan (2017) are presented in Table 2.

Table 2. Error Indicators Based on Newman's Theory

No.	Types of Errors	Indicator
1.	Read	Students cannot read, recognize and understand every word, phrase, symbol, and keyword in the question.
2.	Understand	Students cannot correctly understand what is known and what is asked in the question.
3.	Transformation	Students cannot create mathematical models from the information presented, cannot determine what formulas will be used in solving problems, and do not know the calculation operations to be used.
4.	Process Skills	Students do not know and cannot perform the procedures used in solving the problem appropriately.
5.	Final Answer Writing	Students are unable to determine the outcome following the method followed or to demonstrate the solution to a problem and cannot write down the final answer correctly.

3. Results and Discussion

Based on the test results for the difficulty analysis of class VIII F students, data were obtained that showed that students experienced difficulties indicated by the acquisition of student scores in solving story problems on the material of a system of two-variable linear equations classified into high and low mathematical abilities in determining the subjects used in this research. The data can be seen in Table 3.

Table 3. Percentage of Students' Mathematical Ability

Student Math Abilities	Shoes	Many Students	Percentage
High	≥ 75	3	9,7%
Low	< 75	28	90,3%

From the table of student ability percentages above, it shows that there are only 3 students with high ability class VIII F with a percentage of 9.7% while students with low ability there are 28 students with a percentage of 90.3%.

Thus, the level of ability of students who complete the questions correctly is still relatively low and still less than the expected completion score, this is shown from the acquisition of student scores that are less than KKM is still very much, almost all students cannot complete the questions correctly.

Based on Table 3, it can be seen that errors in solving story problems in the material of the system of two-variable linear equations are still widely done by

https://doi.org/10.30736/voj.v5i2.746

E-ISSN: 2656-5846
P-ISSN: 2656-2286

students. Student errors are recapitulated in Table 4 to see the percentage of errors committed by students.

Table 4. Percentage of Student Errors Based on Newman's Theory

Types Errors	Many Students make mistakes in completing test questions:			Sum	Percentage
	1	2	3		
Read	22	14	18	52	**15,04%**
Understand	22	17	19	58	**16,16%**
Transformation	31	15	31	77	**21,45%**
Process Skills	31	17	31	79	**22,01%**
Writing the final answer	31	29	31	91	**25,35%**

Based on Table 4 above, the final answer writing error is the most mistake made by students with a percentage of 25.35%. Based on the results of the test answer sheet analysis carried out, there are still many students who make mistakes in solving test questions. Here's a more detailed explanation of every- mistake students make.

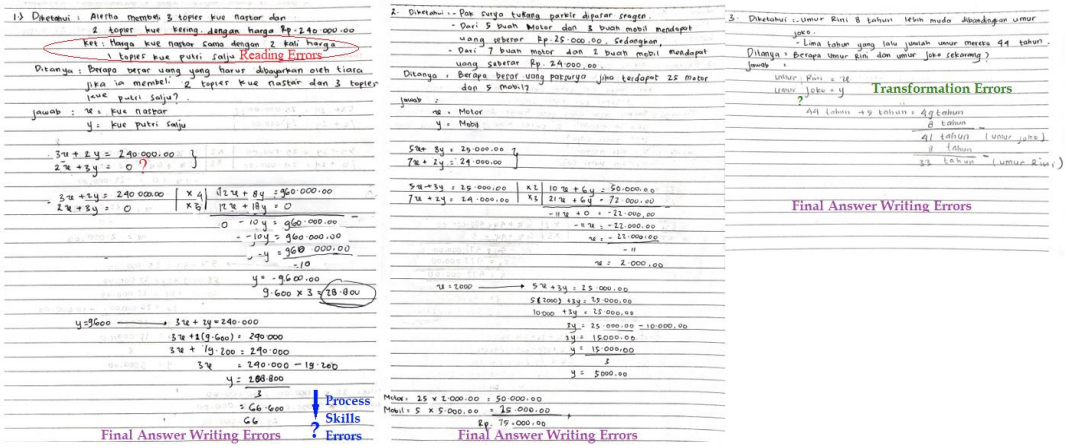

Figure 1. High Mathematics Ability Work Students 4

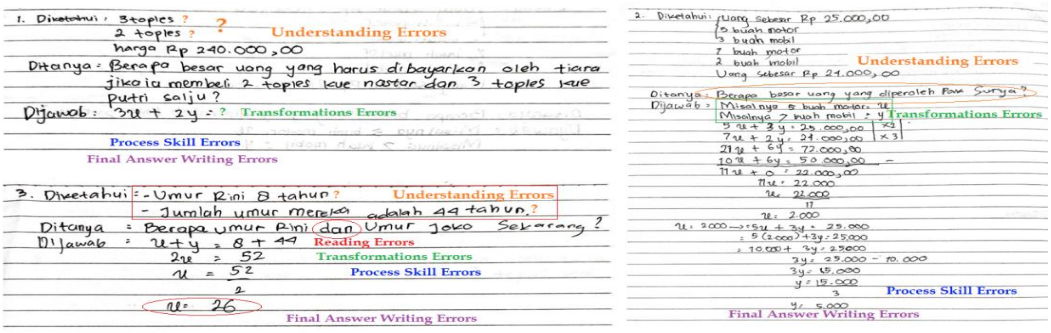

Figure 2. Low Mathematics Ability Work Students 18

3.1 Reading Errors

Reading errors were made by students with a percentage of 15.04%. Reading errors are still experienced by some students, where students are fluent in reading but cannot find keywords or interpret the meaning of important words contained in

E-ISSN: 2656-5846
P-ISSN: 2656-2286

the questions. This reading error was mostly made by students when working on question number 1, which 22 students.

It can be seen in Figure 1 that Student 4 made a mistake in reading, this is shown by the results of work number 1, namely student 4 did not know the important information contained in the question, he only rewrote what was in the question to make student 4 experience confusion in solving the test questions. An important piece of information that Student 4 does not know is that the price of a jar of pineapple cakes is equal to twice the price of a jar of snow-white cakes. If the information is used in the settlement process, then Student 4 can solve the problem at hand. The same thing was done by student 18 shown in answer number 3, namely that students were asked to determine each age of Joko and Rini, but student 18 only determined one of them. Not only that but student 18 also did not read the information completely. It can be seen in the section that students only write Rini's age as 8 years old and their total age is 44 years. The information that should be written is that Rini's age is 8 years younger than Joko's age and 5 years ago their age is 44 years old. After interviews with the two students, the results were obtained that reading errors occurred due to a lack of accuracy when reading questions and also a rash attitude when doing them.

Thus, it can be concluded that reading errors are still made by students even though the student has the different location of errors. The mistakes made by the student are mistakes in interpreting keywords and reading the explanations contained in the test questions. This is to research (Kurnia & Yuspriyati, 2020) where reading errors occur because students cannot find the keywords contained in the questions. Reading errors occur due to students who are not careful in reading questions and are in a hurry when doing things.

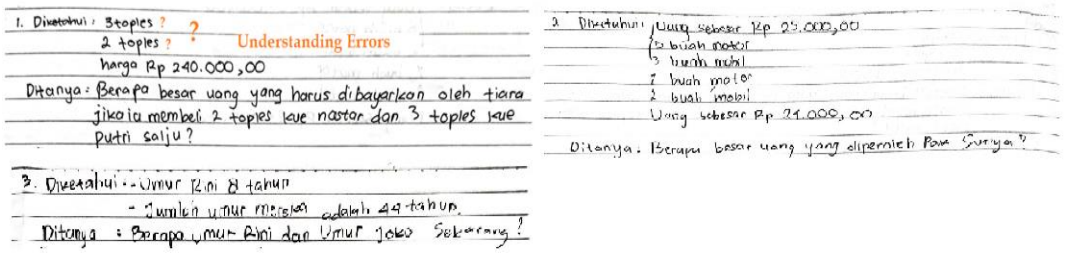

Figure 3. Understanding Errors

3.2 Understanding Errors

Understanding errors were made by students with a percentage of 16.16%. Understanding errors are indicated by errors in writing down what is known and what is asked in the question. This misconception is mostly made by students when doing question number 1, which is as many as 22 students. In Figure 3, it can be seen that student cannot write down what information is known and asked in the question in full. In answer number 1, the information that should be in the question is 3 jars of pineapple cakes and 2 jars of snow-white cakes for Rp. 240,000.00. Because student did not understand the questions, student only wrote down 3 jars, 2 jars, and the price of Rp. 240,000.00 did not write down in full what information was known in the questions, namely in the description of the jar. Not only that but student also did not write down other information known in the question, namely, the price of one jar of pineapple cakes is equal to twice the price of one jar of snow-white cakes. In answer number 2, student did not write down what was asked in the question completely. The information should be the amount

https://doi.org/10.30736/voj.v5i2.746

E-ISSN: 2656-5846
P-ISSN: 2656-2286

of money obtained by Mr. Surya if there are 25 motorcycles and 5 cars, but 18 students only write down how much money Mr. Surya earns. After an interview with the student, the results were obtained that the error occurred because they were still confused by the information contained in the question and did not understand the meaning of the question.

Thus, it can be concluded that the error of understanding made by students is a mistake in writing down in full what information is known and asked in the question. This is by research (Arumiseh et al., 2019) where understanding errors are caused from a cognitive point of view, namely the factor of confusion in students, lack of understanding of the overall problem well, not understanding the meaning of the requested question, and not being accustomed to writing down what is asked by determining two problems. This happens because students are confused and do not understand well the information contained in the questions, causing students not to write down complete information.

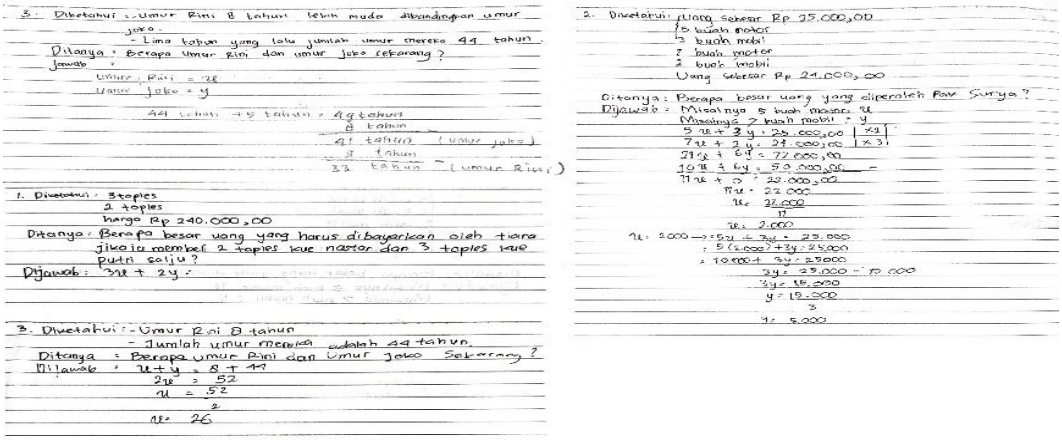

Figure 4. Transformation Errors

3.3 Transformation Errors

Transformation errors were made by students with a percentage of 21.45%. This transformation error is shown by students not being able to create mathematical models, being unable to determine what formulas/methods are used, and being unable to determine the counting operations used in solving test questions. This can be seen in Figure 4, students make transformation errors in answering questions where students cannot make mathematical models, and determine the method used in solving the questions so that they cannot solve the questions correctly, and students have difficulty in determining the calculation operations used in solving all test questions.

After an interview, the transformation error occurred because they could not change the problem into a mathematical model and did not know the correct solution method, in other words, they did not understand the material of the two-variable linear equation system, causing students to answer the questions in their way not based on existing theories.

Thus, it can be concluded that the transformation errors made by students are that students cannot convert problems into mathematical models, cannot determine the formulas used, and cannot use counting operations in solving problems in problems. This is to research (Hadi, 2021) where students have not been able to transform existing story problems into mathematical language and it

https://doi.org/10.30736/voj.v5i2.746

E-ISSN: 2656-5846
P-ISSN: 2656-2286

is difficult to determine the right formula to use in solving problems.

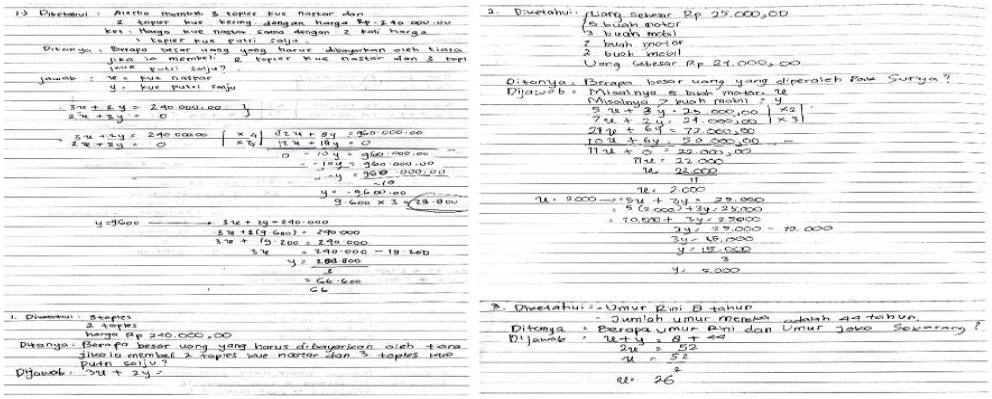

Figure 5. Process Skills Errors

3.4 Process Skills Errors

Process skill errors were made by students with a percentage of 22.01%. Process skill errors are indicated by students not knowing the procedures used and being unable to perform the procedures appropriately in solving test questions. It can be seen in figure 5, student experienced an error in process skills in question number 1 where student could not continue the procedure used in solving the test questions. Student can only search for x and y grades, while what is asked about the question is the amount of money that must be paid by the tiara to buy 2 jars of pineapple cakes and 3 jars of snow-white cakes. It can also be seen that process skill mistakes are made by students by not taking the next step in completing the test questions, so the questions are not resolved properly.

Based on the interview results, the results were obtained that this process skill error occurred due to many students not continuing the procedure/next steps in solving test problems because they forgot the material and rushed while working.

Thus, it can be concluded that the process skills error experienced is that students cannot continue the procedure to solve the problem. This happens because they don't understand the material and also because students are in a hurry when solving problems. This is to research (Mahmudah, 2018) where process skills errors occur due to many students not continuing their calculations.

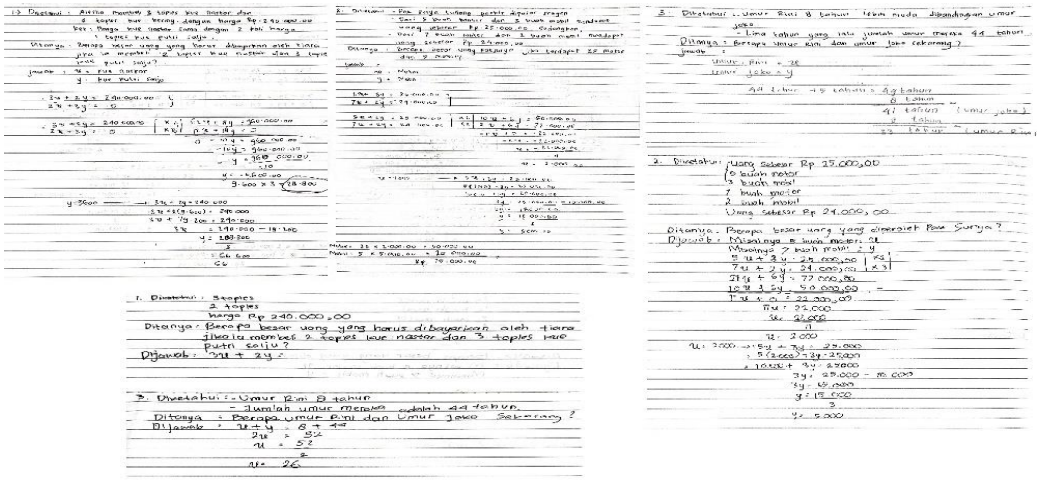

Figure 6. Final Answer Writing Errors

Vygotsky: **Jurnal Pendidikan Matematika dan Matematika**
https://doi.org/10.30736/voj.v5i2.746

E-ISSN: 2656-5846
P-ISSN: 2656-2286

3.5 Final Answer Writing Errors

The final answer writing error was made by students with a percentage of 25.35%. This mistake is the most important mistake made. This error is marked by the student's inability to find the final answer to the procedure that has been used, the student cannot show the final answer to the question completion and the student cannot write the final answer correctly according to the context in which the question is asked. As can be seen in Figures 6, the students were unable to write down the final answer or give a conclusion from the completion they had. This shows that the final answer writing error was made by them. After an interview with students, final answer writing errors are caused by they forgot, was not careful, and was not used to writing down the final answer or giving a conclusion to the answer.

Thus, it can be concluded that the error in writing the final answer made by the student is that the student does not write down the answer results from the procedure that has been carried out following the context proposed in the question. This is by research (Kurnia & Yuspriyati, 2020) where students are not used to writing down the final answer in solving the given questions. This error is caused by forgetting, lack of accuracy, and unfamiliarity with students in providing conclusions or giving the last word for the existing solution.

Factors that cause students' mistakes in solving the story questions described above are following research conducted by Wahyuni, (2020) which obtained the results that these mistakes occurred due to a lack of ability to read questions, ability to understand questions, and when the count was still not right, not careful in calculating and solving questions hastily.

4. Conclusions

The results of the analysis and discussion described above show that the difficulties experienced by each student are different. This difficulty occurs because of the mistakes made by students in solving story problems in the material of a system of two-variable linear equations. The mistakes made by students based on Newman's theory are: a) reading errors, where students misinterpret keywords and read explanations contained in the test questions, b) understanding errors, students cannot write down in full what information is known and asked in the questions, c) transformation errors, where students cannot turn problems into mathematical models, unable to determine the formula used, and unable to use the appropriate calculation operations in solving problems in the problem, d) process skills errors, students unable to continue the procedure to solve the problem, e) final answer writing error, this mistake is the most common mistake made by students. These mistakes are caused by several factors including confusion, forgetfulness, lack of accuracy, lack of understanding of the material, and ignorance in providing conclusions after solving problems.

According to the results of the research that has been carried out, further research is suggested to be able to expand Newman's error indicators on the material of the two-variable linear equation system to be more specific, be able to expand research similar to other mathematical materials and be able to discuss the solution of any mistakes made by students because this research has not discussed the solution of mistakes made by students.

E-ISSN: 2656-5846
P-ISSN: 2656-2286

Author Contributions

The first author contributes to designing research, compiling instruments, analyzing data, taking documentation, and writing manuscripts. The second author as a supervisor and briefer in this research.

Acknowledgment

The author would like to thank the Department of Mathematics Education University Muhammadiyah Surakarta for providing support in this research. The author also would like to thank all parties of SMPN Kerjo who have given permission and helped this research process, especially grade VIII F students who have taken the time and contributed to this research process so that this research can be completed.

Declaration of Competing Interest

The author states that in this research there was no conflict of interest.

References

A., F. (2018). Analisis Kesulitan dalam Menyelesaikan Soal Cerita Pada Materi Persamaan dan Pertidaksamaan Linear Satu Variabel. *Pedagogy*, *3*(1), 138–155. http://www.journal.uncp.ac.id/index.php/Pedagogy/article/view/957

Arumiseh, N. E., Hartoyo, A., & Bistari. (2019). Analisis Kesalahan Siswa Menyelesaikan Soal Cerita Aritmatika Sosial Berdasarkan Newman'S Error Analysis Di Smp. *Jurnal Pendidikan Dan Pembelajaran*, *8*(9), 1–9. https://doi.org/http://dx.doi.org/10.26418/jppk.v8i9.36086

Hadi, F. R. (2021). Kesulitan Belajar Siswa Sekolah Dasar Dalam Menyelesaikan Soal Hots Matematika Berdasarkan Teori Newman. *Jurnal Madrasah Ibtidaiyah*, *6*(2), 43–56. http://ojs.uniska-bjm.ac.id/index.php/jurnalmuallimuna

Hardani, Nur Hikmatul Auliyah, dkk. (2020). Buku Metode Penelitian Kualitatif dan Kualitatif. In *Repository.Uinsu.Ac.Id* (Issue April).

Hi.Idris, F., Hamid, I., & Ardiana. (2015). Analisis kesulitan siswa dalam menyelesaikan soal-soal penerapan sistem persamaan linear dua variabel. *Delta-Pi:Jurnal Matematika Dan Pendidikan Matematika*, *4*(1), 92–98.

Husna, R. A., Rohaeti, E. E., & Senjayawati, E. (2019). Analisis kesulitan belajar pada materi spldv siswa kelas x smk bina insan bangsa di tinjau dari segi kemampuan komunikasi matematik. *Journal On Education*, *01*(02), 335–343.

Kartika Dewi, D., Ernawati, Nurhayati, L., Agina, S., Sarah Khodijah, S., & Hidayat, W. (2020). Analisis Kesulitan Siswa dalam Pemecahan Masalah Matematik Siswa SMA pada Materi Persamaan dan Pertidaksamaan Linier. *Jurnal Pembelajaran Matematika Inovatif*, *3*(1). https://doi.org/10.22460/jpmi.v3i1.p1-10

Kumar Jha, S. (2012). Mathematics Performance of Primary School Students in Assam (India): An Analysis Using Newman Procedure. *International Journal of Computer Applications in Engineering Sciences*, *II*(I).

Kurnia, L., & Yuspriyati, D. N. (2020). Analisis Kesulitan Siswa SMP Dalam Menyelesaikan Soal Aritmatika Sosial Berdasarkan Analisis Newman. *Jurnal Matematics Paedagogic*, *IV*(2), 116–119.

Kurniawan, E. (2017). Analisis Kesalahan Siswa dalam Menyelesaikan Soal Cerita Pokok Bahasan Sistem Persamaan Linier Dua Variabel dengan Menggunakan

E-ISSN: *2656-5846*
P-ISSN: *2656-2286*

Prosedur Newman pada Siswa Kelas VII SMPN 43 Purworejo Tahun Ajaran 2016/2017. *Universitas Muhammadiyah Purworejo*, 200.

Mahmudah, W. (2018). Analisis Kesalahan Siswa dalam Menyelesaikan Soal Matematika Bertipe Hots Berdasar Teori Newman. *Jurnal UJMC*, *4*(1), 49–56.

Murtiyasa, B., & Wulandari, V. (2020). Analisis Kesalahan Siswa Materi Bilangan Pecahan Berdasarkan Teori Newman. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, *9*(3), 713. https://doi.org/10.24127/ajpm.v9i3.2795

Oktaviana, D. (2018). Analisis Tipe Kesalahan Berdasarkan Teori Newman Dalam Menyelesaikan Soal Cerita Pada Mata Kuliah Matematika Diskrit. *Edu Sains: Jurnal Pendidikan Sains & Matematika*, *5*(2), 22. https://doi.org/10.23971/eds.v5i2.719

Pebriyani, N., Nasihin, D., Meika, I., Yaniawati, R. P., & Firmansyah, E. (2020). Analisis Kesalahan Siswa Dalam Menyelesaikan Soal-Soal Sistem Persamaan Linear Dua Variabel. *Jurnal PJME*, *10*(1), 18–24. https://doi.org/10.5035/pjme.v10i1.2444

Pereira, J., Aulingga, A., Ning, Y., & Vilela, A. (2022). Kesalahan Siswa SMP dalam Menyelesaikan Soal PISA Konten Space and Shape Berdasarkan Teori Newman. *JPMI (Jurnal Pembelajaran Matematika Inovatif)*, *5*(2), 317–326. https://doi.org/10.22460/jpmi.v5i2.9910

Pradini, W., Muhsetyo, G., & Rahardjo, S. (2020). Kesulitan Siswa SMP dalam Menyelesaikan Soal Cerita Sistem Persamaan Linear Dua Variabel. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, *5*(1), 31. https://doi.org/10.17977/jptpp.v5i1.13126

Rohmah, M., & Sutiarso, S. (2017). Analysis Problem-Solving in Mathematical Using Theory *Newman*. *EURASIA Journal of Mathematics, Science and Technology Education*, *14*(2), 671–681. https://doi.org/10.12973/ejmste/80630

Sutama. (2019). *Metode Penelitian Pendidikan Kuantitatif, Kualitatif, PTK, Mix Method, R&D*. CV. Jasmine.

Wahyuni, A. (2020). Analisis Kesalahan Siswa dalam Menyelesaikan Soal Aritmatika Sosial (Analysis of Student's Mistake in Solving Story Problems Social Arithmetic). *Jurnal Pendidikan Matematika*, *11*(1), 67–76. http://ojs.uho.ac.id/index.php/jpm

Yovita, M., Mali, K., Amsikan, S., & Nahak, S. (2021). Analisis Kesalahan Siswa Dalam Menyelesaikan Soal Cerita Pokok Bahasan Aritmatika Sosial. *MATH-EDU: Jurnal Ilmu Pendidikan Matematika*, *6*(2). https://doi.org/10.32938/jipm.6.2.2021.65-72

E-ISSN: *2656-5846*
P-ISSN: *2656-2286*

Vygotsky**: Jurnal Pendidikan Matematika dan Matematika**
https://doi.org/10.30736/voj.v5i2.746