

## CAUSAL FACTORS ANALYSIS OF MATHEMATICS LEARNING DIFFICULTIES IN 4<sup>TH</sup> GRADE STUDENTS

Anajulia Putri Utami<sup>1</sup>, Diana Ermawati<sup>2</sup>, Lovika Ardana Riswari<sup>3</sup>

Primary School Teacher Education, Faculty of Teacher Training and Education,  
Muria Kudus University<sup>1,2,3</sup>

Kudus – Indonesia

[anajuliaputri@email.com](mailto:anajuliaputri@email.com)

| Article Info   | Abstract  |
|--|---|
| <p><i>Article History:</i></p> <p>Accepted<br/>March 024</p> <p>Revised<br/>February 2024</p> <p>Approved<br/>January 2024</p> | <p>Learning difficulty means students cannot learn well in an academic field. One of the learning difficulties experienced by students is mathematics, especially the material of small numbers. So, the focus problem of this research is the factors that cause learning difficulties. This research aims to discover the factors of learning difficulties in mathematics in the material of integers in 4<sup>th</sup> grade students at SD 1 Bakalan Krapyak. This research uses a narrative-oriented qualitative approach. The results prove that the factors that cause student learning difficulties consist of several levels, namely T1 level students with factors that affect learning ability, health, learning environment, and the learning process provided by the teacher. The influencing factors of T2 students are interest in learning, health, classroom environment, and family. The factors that affect S1 students are health and classroom environment. S2 students are interested in learning interest and the classroom environment. R1 students have learning interests, health, classroom environment, and family. R2 students have factors influencing learning difficulties: intelligence, health, classroom environment, and family. So, it is concluded that the factors that cause learning difficulties include internal and external factors. Internal factors are learning ability, interest in learning, health, and individual intelligence. External factors are the classroom environment, including the state of the learning process and the family environment.</p> <p><b>Keywords:</b> Learning Difficulties; Mathematics; Whole Numbers</p> |

## A. Introduction

Learning is a human process to gain knowledge of various competencies, skills, and attitudes. These three things are gradually and continuously obtained through several lifelong learning processes from childhood to old age (Fidayanti et al., 2020). Learning is helpful for people to get something more functional in their lives, one of which is learning mathematics. Mathematics is necessary for improving thinking, argumentative, and communication skills concerning everyday problem-solving (Fidayanti et al., 2020). Learning difficulty means students cannot learn well academically and cannot learn as they should (Sari & Subekti, 2023). Mathematics, especially whole numbers lessons, begins to be taught to 4<sup>th</sup> grade elementary school students. It is hoped that students will recognize what integers are, such as the place value of numbers, sorting numbers based on the place value, etc. However, the reality is that there are still students who need help with the material of whole numbers.

Some previous studies discuss the factors of student learning difficulties in mathematics, including the factors of learning difficulties in whole numbers experienced by students at SDN Kamulyan, consisting of internal factors, such as low interest and motivation in mathematics. Shows dissatisfaction in math lessons and division operations, gets bored quickly, thinks division operations are complicated, and always does division homework with friends' help. At the same time, external factors that affect students' difficulties in division counting are the family environment and the school environment (Andriyani et al., 2022). Likewise, the factors that cause students' difficulties in counting numbers at SD Indonesia Pintar Tangerang City are factors that inhibit students' intelligence in solving math problems in counting numbers: (1) difficulties in carrying out digital activities, (2) difficulties in retrieving and interpreting conflicts in digital language, (3) difficulties in dealing with numerical assignment problems (Unaenah et al., 2023).

The results of preliminary observations on April 17, 2023, with the 4<sup>th</sup> grade teacher at SD 1 Bakalan Krapyak, by the conditions of the 4<sup>th</sup> grade in mathematics learning of small numbers material, students are not motivated when learning or doing mathematics assignments, especially about the small numbers, and the

learning is less creative in providing material so that students find it challenging to learn it, students also find it difficult to work on small numbers and learning that is less interesting. Then, based on the results of the first interview with the teacher, it turns out that many children have difficulty learning math in the subject of integers. These children struggle to determine place value and sort hundred thousand numbers. Some students seemed less enthusiastic about learning, and no students asked about their difficulties.

Several supporting factors are needed to create an effective learning atmosphere and conditions, such as the learning environment, teacher teaching expertise, adequate facilities and equipment, and cooperation between teachers and students (Yuliani et al., 2023). Based on this description, it is known that this research aims to analyze the factors that cause mathematics learning difficulties in the material of whole numbers in 4<sup>th</sup> grade students at SD 1 Bakalan Krapyak. Based on the description above, the researcher intends to conduct a study titled “Analysis of Mathematics Learning Difficulties in Numerical Materials for 4<sup>th</sup> Grade Students at SD 1 Bakalan Krapyak”.

## **B. Methods**

This research uses a narrative approach with a qualitative research type. Bogdan and Taylor (Moelong, 2015) define qualitative research as a technique that produces descriptive data about people through written or spoken words and observable behaviour. This research focuses on in-depth observations to describe and provide a picture to determine students’ learning difficulties when learning the material of small numbers in 4<sup>th</sup> grade mathematics at SD 1 Bakalan Krapyak. In this research, the researchers took 6 students as the subjects with the criteria of students with mathematics learning difficulty in 4<sup>th</sup> grade.

Primary data in this research are from interviews and observations of factors that cause mathematics learning difficulties for students in 4<sup>th</sup> grade. Primary data sources with the number of 4<sup>th</sup> grade students are taken based on gender variations in each subject, with 6 students in high, medium, and low subjects. Meanwhile, secondary data in this research include reference books, documentation in the field,

and journals that discuss the analysis of factors of mathematics learning difficulties in the material of small numbers of 4<sup>th</sup> grade students in elementary schools.

Two stages of the method are used to collect data: a literature study and a survey. Literature studies can help in the process and serve as a reference in research by studying journals, books, or previous research related to the research to be carried out. After the literature study, a survey will be carried out with 3 stages: observation, interviews, and documentation. Then, the validity of the data is checked to increase the confidence level in the data that has been studied so the researchers can be responsible for the truth of the obtained data. When checking the validity of data in qualitative research is carried out with 4 stages: credibility, transferability, dependability, and objectivity tests. According to Milles and Huberman, qualitative data analysis includes data collection, reduction, presentation, and conclusion drawing/verifying.

### C. Results and Discussion

The research was conducted by observing and interviewing the learning difficulties of mathematics in the material of counting numbers in 4<sup>th</sup> grade students at SD 1 Bakalan Krapyak. This research had 6 subjects: 3 female and 3 male students. Each subject is divided into three categories: high, medium, and low. The high category has the initials MSAI and RF; the medium category has the initials YF and DAPF, and the low category has the initials HAD and PM. The category can be explained in the following table.

**Table 1**  
**Indicators of Learning Difficulties**

| No | Subject                | Learning Difficulty Indicators  |                        |  |                    |
|----|------------------------|---------------------------------|------------------------|--|--------------------|
|    |                        | Mastering concept understanding | Enthusiasm in learning | Provides information about the concept | Perception ability |
| 1. | MSAI (T <sub>1</sub> ) | ✓                               | ✓                      | ✓                                      | ✓                  |
| 2. | RF (T <sub>2</sub> )   | ✓                               | ✓                      | ✓                                      | ✓                  |
| 3. | YF (S <sub>1</sub> )   | ✓                               | ✓                      | -                                      | ✓                  |
| 4. | DAPF (S <sub>2</sub> ) | ✓                               | -                      | ✓                                      | -                  |
| 5. | HAD (R <sub>1</sub> )  | -                               | -                      | -                                      | ✓                  |
| 6. | PM (R <sub>2</sub> )   | -                               | ✓                      | -                                      | -                  |

Source: Research Data

Description:

|    |          |    |            |    |         |
|----|----------|----|------------|----|---------|
| T1 | : High 1 | S1 | : Medium 1 | R1 | : Low 1 |
| T2 | : High 2 | S2 | : Medium 2 | R2 | : Low 2 |

Based on the results of the research, it was found that the factors that influence mathematics learning difficulty on the material of counting numbers in 4<sup>th</sup> grade students at SD 1 Bakalan Krapyak are divided into internal factors and external factors with the following explanation:

Internal factors are factors that exist within the individual who is learning. Internal factors include high-category students (T1) and high-category T1 subjects, male students with the initials MSAI, and competent in class. MSAI has low learning difficulties in learning math. The first internal factor is the student's ability to learn mathematics. MSAI likes mathematics lessons, especially counting numbers. In addition, MSAI has worked on math problems on the board given by the teacher and can work according to the steps of logically correct solutions, by the opinion (Adriana, 2021), which explains that a student's intelligence will determine learning outcomes. Student intelligence is an internal factor that significantly influences student achievement in learning (Sautro et al., 2022). In addition, student motivation in learning is influential if students have high motivation and can participate in classroom learning well.

In the high category subject T2, the student with the initials RF is an intelligent female student. RF has low learning difficulties in learning math. Internal factors that influence RF are intense interest and focus on learning when learning takes place, according to the opinion of Riswari et al. (2023), which explains that students need to listen and pay attention to their teachers while learning so that they can better understand the information and material conveyed by their teachers and achieve essential competencies and learning objectives optimally. The second internal factor of RF is excellent health, so it encourages the learning process. The habit of always having breakfast before school and often eating the 4 Healthy 5 Perfect menu makes RF concentrate well after breakfast. Agree with (Karyani & Abdulhaq, 2021); learning concentration can be improved in several ways, including eating breakfast. For school children aged 6-14 years, eating breakfast

plays an important role, namely completing the morning meal menu when children go to school and are busy doing activities at school. If children are accustomed to breakfast, it will affect brain intelligence, especially children's memory, so that it can support children's academic achievement better.

Internal factors in moderate category subject S1 is a student with the initials YF who has an internal factor of interest and desire to learn by paying attention to the teacher when learning takes place; however, occasionally, YF jokes with peers. Student learning activities can stimulate, develop talents, and develop critical thinking (Sagita et al., 2023). Regarding this issue, YF pays attention to the teacher when learning occurs. Nevertheless, only a tiny part of YF did not pay attention to the teacher. To understand the problem, YF must read the problem twice to be more careful and avoid getting stuck. In addition, YF is also often active and able to answer questions that the teacher gives well and correctly. The second internal factor is YF's good health, which supports the learning process in the classroom. YF claimed to get sick rarely and always went to school on time. YF admitted that he often had breakfast before going to school. Agree with the opinion of (Rika Audina, 2021), which explains why health plays a vital role in math engagement. Mathematics is a subject that requires good thinking so that students have good health. Good health will help students absorb learning materials quickly and not tire when studying mathematics.

Furthermore, the S2 category subject is a student with the initials DAPF. The interest influences internal factors in this moderate category subject in learning. DAPF does not like integer math. Learning difficulties arise due to a need for students' interest in learning. According to the view of (Ayu et al., 2023), interest has a significant influence on student learning activities so that student learning interest can increase, and the teacher tries to make engaging learning for students to make it more relevant. At the same time, the second internal factor is health. DAPF often feels dizzy because he did not have breakfast before school. Poor physical condition can make students quickly tired, dizzy, sleepy, and lack enthusiasm in completing lessons. As stated by (Utari et al., 2019), students have health problems that can cause them to not focus on learning and fall asleep during

math lessons; this can occur due to less-than-optimal physical conditions. Less than optimal physical conditions will affect students' ability to receive information conveyed by the teacher.

Low-category R1 subjects, students with the initials HAD, are students with the influenced internal factors of interest in learning. HAD rarely listens and pays attention to the teacher properly during the learning process. HAD's activities during learning include chatting with classmates, drawing, and playing with stationery. HAD needed more concentration and was not interested in the lesson. When the teacher asked students to answer questions, HAD looked confused and asked his classmates many questions. Learning difficulties experienced by students are not always caused by low intelligence but can also be caused by physical, psychological, learning tools, and environmental factors (Setyaningrum et al., 2023). In addition, (Sautro et al., 2022) argue that each student's difficulties, type, nature, and form are not always the same. The second internal factor is that HAD is healthy enough to support the learning process in the classroom. However, HAD often leaves breakfast before school. Breakfast can fulfil children's nutritional needs before activities. Help the children perform well in various physical activities. Prevent them from losing focus while learning. Bring a positive impact on the child's learning process in all aspects, both in terms of behaviour and thought process. It is in line with the opinion (Karyani & Abdulhaq, 2021) that children get used to breakfast to maintain health and improve concentration in class.

The following low R2 category subjects, the students with the initials PM, are students with learning difficulties influenced by the internal factor of individual intelligence. PM is a student who is different from other students. As explained above, we see that low intelligence factors only sometimes cause the learning difficulties experienced by these students. (Ermawati & Riswari, 2020). PM has yet to be able to read, write, and count fluently, so PM has difficulty working on problems, in line with the opinion of (Sunariah & Rijal, 2017), a syndrome that refers to a set of symptoms that appear as indicators of mental disorders that cause learning disabilities, consisting of dyslexia, namely the inability to learn to read, dysgraphia or the inability to learn to write, and dyscalculia or the inability to learn

math. Students' intelligence can affect their academic success. As stated by (Nisa et al., 2023), the lower the student's intelligence or intelligence, the more difficult it is for the student to achieve academic success, and the level of student intelligence determines the level of success of student achievement. The second internal factor is health. PM admits that his health is not good because he often gets dizzy when learning occurs. PM rarely eats breakfast before school, so she lacks concentration, which causes dizziness. In line with the opinion (Kholil & Zulfiani, 2020), the poor physical condition of students can hinder their learning process; for example, if students are too tired, then students experience visual impairment, and poor physical health can result in reduced ability to absorb and respond to learning, the nerves in the brain cannot function optimally to process, manage, interpret and organize learning material through the brain.

External factors come from outside the individual and also affect individual learning. In external factors, high-category students (T1), MSAI, have the first external factor: a good learning environment that is very supportive during the learning process. The classroom environment is very well maintained, which can provide comfort while learning. The classroom where MSAI learns is equipped with a whiteboard and markers, learning modules, and comfortable seating so that it can give an impression when learning takes place. MSAI sits at the back but always pays attention to the teacher and feels comfortable. According to Utamingtyas (2021:73), the learning environment can affect each student's learning quality. Students will concentrate on learning if they choose a comfortable seat and follow the learning process well.

In addition, further external factors include the mathematics learning process that takes place in 4<sup>th</sup> grade. Mathematics learning that students like can be done well, and it requires fun learning methods. MSAI is constantly watched by the teacher while learning to encourage learning and see the progress of mathematics learning. The teacher explains and then gives simple to complex problems in a mathematics lesson on whole numbers. MSAI always asks if he needs help with working on problems that are considered complex. The teacher allowed MSAI to work on the board with the right results and answers, and the student confidently



presented them to her friends. According to the opinion of (Ulya et al., 2016), which explains that teachers can design more interesting learning so that it can improve critical reasoning skills and students are challenged to think higher (Ermawati, Zahro, et al., 2023).

In subjects with the T2 category, RF is influenced by external factors of the classroom environment that are very comfortable for the teaching and learning process. Especially the seating arrangement. The seating arrangement is one of the easiest classrooms to manage because it does not take long. Seating arrangements have a significant influence compared to other classroom arrangements. Agree with (Al-Kansa et al., 2023); a good classroom arrangement affects student participation and student participation in the learning process. The seating arrangement also affects how long students complete the given tasks. The more appropriate the teacher applies the seating arrangement, the more effectively students will use their time to complete their assignments to participate more actively in the learning process. The second external factor is the family environment. RF constantly studies with her mom at home. RF feels comfortable studying with family, accompanying her, and teaching her the material she needs help understanding about whole numbers. It is by Ahmadi and Supriyono's theory, which states that family can also be a factor in learning disabilities. Its nature is love, understanding or anger, violence, indifference, indulgence, etcetera. Parental affection, attention, or appreciation of the child creates a healthy mindset in the child, but lack of affection creates emotional insecurity. Similarly, a harsh, cruel, indifferent attitude causes learning difficulties for a child.

Subjects in the S1 category have the first external factor, namely the learning environment in the classroom, which is very important in the learning process. According to YF, his learning is equipped with learning modules, whiteboards, markers, LCD projectors, and sound speakers. YF prefers to learn using an LCD projector because it is interesting and exciting. Agree with (Jayanti & Arista, 2019) that external factors that can cause difficulties for students are learning facilities. Inadequate facilities can have an impact on students experiencing learning difficulties. The second external factor is the family environment. YF, at home,

more often studies alone than with his parents. YF feels comfortable studying alone. As stated by (Andri, Dores, et al., 2020), a crowded, noisy home or family atmosphere will make it difficult for students to learn well. An example of parental involvement is parents accompanying students while studying at home. Students with difficulty learning mathematics only sometimes receive attention from their parents at home. As stated by (Asriyanti & Purwati, 2020), parents pay less attention to their children's home learning, so students need help in learning.

Subjects with the S2 category influenced the external factors of the learning environment in the classroom, according to DAPF, which was quite adequate. The classroom is comfortable, safe, and clean. Learning facilities consist of building conditions, Mathematics textbooks, media used by teachers, and teaching aids. So, it supports the learning and teaching process, followed by Jayanti et al. (2020), who stated that external factors that can cause difficulties for students are learning facilities. Inadequate facilities can have an impact on students experiencing learning difficulties. The second external factor is the family environment. YF learns and is assisted by parents and siblings. Therefore, it is necessary for parents to constantly provide attention and support in the child's learning process. In agreement with Ayu (2021), she argues that the causes of mathematics learning difficulties are caused by students' attitudes towards learning mathematics, low student learning motivation, less than optimal physical health, and students' lack of sensory abilities, non-optimal use of learning facilities, infrastructure at school and in the home environment.

Furthermore, in low-category students (R1), the school environment is the first external factor of high-category subject R1. This school is near the highway; many tourist buses pass by because it is near the terminal, so it is less supportive of the learning process in class. In line with this, Pratiwi et al. (2020) revealed that the external factors of students are something that arise from outside the students, including 1) family environment, such as a disharmonious family atmosphere and economy; 2) community environment, namely living in an unhealthy environment and a lousy community; 3) school environment, including unstrategic school buildings such as near highways, markets, teacher conditions, and teaching and

learning facilities that do not support the learning process. The second external factor is the family environment. When studying at home, HAD is not accompanied by either parents or siblings. Parents need to pay attention to their children's activities in the community so that students remember their duties in learning, especially learning mathematics. As stated by (Leni & Sholehun, 2021), the community environment influences student learning activities. Parents must supervise their children's activities so they can be followed without forgetting their learning tasks.

External factors that influence the learning difficulties of this low R2 category subject are the learning environment in the classroom. In the place of learning, there are adequate infrastructure facilities like LCD projectors and loudspeakers. PM admitted to sitting in the front row because the teacher determined it so that PM could see and hear the material conveyed by the teacher. A teacher must know how to manage the class well (Fatimah et al., 2020). The classroom environment must be well organized so that the learning atmosphere is conducive and encourages student interest in learning and participation in learning activities (Riswari & Bintoro, 2020). According to Utaminingtyas (2021), the learning environment can affect students' learning quality. Students will concentrate on learning if they choose a comfortable seat and follow the learning process well.

The second external factor is the family environment. The family is the first and most important educational centre for students. Parents' attention and their guidance affect students' learning success (Dinar et al., 2022). PM feels the need for parental attention because parents are too busy working, so they pay less attention to student lessons at school. One lack of parental attention is that students need to complete the mathematics homework the teacher gave. As stated by (Utari et al., 2023), most parents are working, so they are rarely at home with students, so parents do not support student learning at home. Therefore, parents should pay attention to their children's education, especially in learning and attitude formation.

Meanwhile, in educational development, learning outcomes are not only influenced by the formation of attitudes and behaviour but also by the environment in which children play (Ermwati & Amalia, 2023). Parents must pay attention to

children's playing conditions to create an excellent and beneficial student environment. In line with the opinion of Sintia et al. (2022), the quality of peers also affects student learning outcomes.

#### D. Conclusion

Based on the results of the research and discussion of the analysis of learning difficulties in mathematics in the material of enumerated numbers in 4<sup>th</sup> grade students at SD 1 Bakalan Krapyak, it is concluded that the factors that cause learning difficulties include internal and external factors. Internal factors are learning ability, interest in learning, health, and individual intelligence. External factors are the classroom environment, including the state of the learning process and the family environment. The implication of this research can be developed to examine the students' difficulties in learning mathematics more deeply so solutions and efforts can be found to overcome the causes of student learning difficulties.

#### References

- Adriana, A. (2021). *Pengaruh Kecerdasan Emosional Dan Perilaku Belajar Terhadap Tingkat Pemahaman Akuntansi Pada Program Studi Akuntansi Universitas Medan Area*. Universitas Medan Area.
- Al-Kansa, B. B., Agustini, S., & Pertiwi, P. I. (2023). Pengaruh Penataan Tempat Duduk Terhadap Keefektifan Belajar Siswa Sekolah Dasar. *Jurnal Pendidikan Dan Konseling*, 5(1), 683–687.
- Asriyanti, F. D., & Purwati, I. S. (2020). Hasil Belajar Matematika Siswa Kelas V Sekolah Dasar. *Sekolah Dasar: Kajian Teori Dan Praktik Pendidikan*, 29(1), 79–87.
- Atiaturrahmaniah, Kudsiah, M., & Ulfa, E. M. (2021). Analisis Faktor Penyebab Kesulitan Belajar Matematika materi pecahan siswa Kelas IV SDN Sukaraja. *Jurnal DIDIKA : Wahana Ilmiah Pendidikan Dasar*, 7(2), 268–278.
- Dinar, R. A., Ismaya, E. A., & Riswari, L. A. (2022). Peran Orang Tua dalam Pendampingan Belajar Siswa Sekolah Dasar pada Era New Normal di Desa Undaan Lor. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, 5(9), 3686–3691. <https://doi.org/10.54371/jiip.v5i9.921>
- Ermawati, D., & Amalia, N. (2023). The Effect of Mat Joyo Application on Students' Understanding of Mathematical Concepts Fifth Grade Elementary School. *JPSD (Jurnal Pendidikan Sekolah Dasar)*, 9(1), 12–22.
- Ermawati, D., & Riswari, L. A. (2020). Pengaruh Pendekatan Pmri Terhadap Kemampuan Pemecahan Masalah Matematis Siswa SD. *JPD: Jurnal Pendidikan Dasar*, 1–9.
- Ermawati, D., Ayu, D., Amaruddin, W., Ayu, L., & Ika, C. C. (2023). Analisis Kemampuan Pemahaman Konsep Bilangan Desimal Melalui Strategi Later U Pada Siswa Kelas 5 SD N 3 PIJI. *JPST: Jurnal Pendidikan, Sains, Dan Teknologi*, 2(3), 400–404.

<http://jurnal.minartis.com/index.php/jpst/>

- Ermawati, D., Zahro, I. P., Anika, R. R., Hindriana, P. T., & Zulfia, S. K. (2023). Analisis Kemampuan Pemecahan Masalah Matematis Siswa Dalam Menyelesaikan Soal HOTS Kelas IV SD Gempolsongo. *Jurnal Penelitian Pembelajaran Matematika Sekolah*, 7(2), 228–236. <https://doi.org/10.33369/jp2ms.7.2.228-236>
- Fatimah, S., Anggraini, R., & Riswari, L. A. (2020). Peningkatan Hasil Belajar Siswa Melalui Model Pembelajaran Project Based Learning (PjBL) pada Siswa Kelas IV Sekolah Dasar. *Jurnal Basicedu*, 5(5), 3(2), 524–532. <https://journal.uui.ac.id/ajie/article/view/971>
- Jayanti, F., & Arista, N. T. (2019). Persepsi Mahasiswa Terhadap Pelayanan Perpustakaan Universitas Trunojoyo Madura. *Competence : Journal of Management Studies*, 12(2), 205–223. <https://doi.org/10.21107/kompetensi.v12i2.4958>
- Karyani, Y., & Abdulhaq, M. (2021). Pengaruh Kebiasaan Sarapan Pagi Terhadap Tingkat Konsentrasi Remaja Di Smkf Avicenna Cileungsi. *Afiat*, 6(02), 16–23. <https://doi.org/10.34005/afiat.v6i02.1328>
- Kholil, M., & Zulfiani, S. (2020). Faktor-Faktor Kesulitan Belajar Matematika Siswa Madrasah Ibtidaiyah Da'watul Falah Kecamatan Tegaldlimo Kabupaten Banyuwangi. *EDUCARE: Journal of Primary Education*, 1(2), 151–168. <https://doi.org/10.35719/educare.v1i2.14>
- Leni, M., & Sholehun. (2021). Analisis Faktor-Faktor yang Mempengaruhi Hasil Belajar Bahasa Indonesia pada Siswa Kelas IV SD Muhammadiyah Majaran Kabupaten Sorong. *Jurnal Keilmuan, Bahasa, Sastra, Dan Pengajarannya*, 2(1), 66–74. <https://unimuda.e-journal.id/jurnalbahasaindonesia/article/download/952/582>
- Nisa, Y. K., Riswari, L. A., & Setiadi, G. (2023). Analisis Faktor yang Mempengaruhi Kesulitan Belajar Matematika Siswa Sekolah Dasar. *Edukatif: Jurnal Ilmu Pendidikan*, 5(2), 1685–1693. <https://edukatif.org/index.php/edukatif/article/view/5486>
- Rika Audina, D. F. D. (2021). Analisis Faktor Penyebab Kesulitan Belajar Matematika Kelas IV Sekolah Dasar Negeri. *Cybernetics: Journal Educational Research and Social Studies*, 2(2014), 94–106. <https://doi.org/10.51178/cjerss.v2i3.256>
- Riswari, L. A., & Bintoro, H. S. (2020). The Influence of Problem-Based Learning Model in Improving Student Engagement in Mathematics. *JPSd (Jurnal Pendidikan Sekolah Dasar)*, 6(2), 158–173.
- Riswari, L. A., Sari, A. C., & Suryanto, H. (2023). Kemampuan Penalaran Matematis Pada Materi Operasi Hitung Campuran Sebagai Implementasi Dalam Kehidupan Sehari-. *Tarbiyah Dan Ilmu Keguruan Borneo*, 4(3), 233–242.
- Sagita, D. K., Ermawati, D., & Riswari, L. A. (2023). Kemampuan Pemecahan Masalah Matematis Siswa Sekolah Dasar. *Jurnal Educatio FKIP UNMA*, 9(2), 431–439. <https://doi.org/10.31949/educatio.v9i2.4609>
- Sautro, W. A., Setiawan, D., & Riswari, L. A. (2022). Rendahnya Minat Belajar Siswa Pada Mata Pelajaran Matematika Di Kelas VI SDN Karanganyar. *Jurnal Pendidikan Dan Konseling*, 4(5), 1707–1715.
- Setyaningrum, Ermawati, D., & Riswari, L. A. (2023). Analisis Kesulitan Belajar Dalam Memahami Konsep Pecahan Pada Siswa Kelas V Sd Negeri Sidomulyo. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, 08, 3360–3369.
- Sunariah, & Rijal, R. (2017). Analisis Kesulitan Belajar Siswa Pada Pembelajaran Matematika Materi Pecahan. *Jurnal Primary*, 09(01), 93–108. <http://jurnal.uinbanten.ac.id/index.php/primary/article/view/419/364>
- Ulya, I. F., Irawati, R., & Maulana. (2016). Peningkatan Kemampuan Koneksi Matematis Dan Motivasi Belajar Siswa Menggunakan Pendekatan Kontekstual. *Jurnal Pena*

- Ilmiah*, I(1), 121–130.  
<https://ejournal.upi.edu/index.php/penailmiah/article/view/2940>
- Utamingtyas, S., Subaryana, S., & Puspitawati, E. N. E. (2021). Pengaruh Motivasi Belajar Dan Lingkungan Belajar Terhadap Hasil Belajar Matematika. *Pedagogi: Jurnal Penelitian Pendidikan*, 8(2), 69–76.  
<https://doi.org/10.25134/pedagogi.v8i2.4157>
- Utari, D. R., Wardana, Y. S., & Damayani, A. T. (2023). Analisis Kesulitan Belajar Matematika Dalam Menyelesaikan Soal Cerita. *Jurnal Pendidikan Dasar Flobamorata*, 4(1), 421–423. <https://doi.org/10.51494/jpdf.v4i1.845>
- Yuliani, D., Indralin, V. I., & Maharani, S. D. (2023). Improving Student Learning Outcomes Through Problem-Based Learning Model In Mathematics Subject. *JPSd (Jurnal Pendidikan Sekolah Dasar)*, 9(2), 224–232.