

The Implementation of the Cooperative Learning Model Using Puzzle Media to Enhance the Reading Skills of Second-Grade Elementary School Students

Asnita Hasibuan, Ica Sintia Sitorus,
Suwinandi Lumbantoruan, Tambun Santoso Saragih
Universitas Katolik Santo Thomas, Indonesia
asnita_hasibuan@ust.ac.id

Article Info:

Submitted:	Revised:	Accepted:	Published:
Jun 9, 2026	Jul 7, 2026	Jul 19, 2026	Jul 24, 2026

Abstract

Low beginning reading proficiency among second-grade students at SD Negeri 068007 Medan Tuntungan was associated with limited reading interest, low classroom participation, difficulties in recognizing letters and blending syllables, and insufficiently varied instructional methods. This study aimed to examine the implementation of a cooperative learning model assisted by puzzle media in improving students' beginning reading skills during the 2025/2026 academic year. Classroom action research was conducted in two cycles, each comprising planning, action, observation, and reflection. The participants were second-grade students at SD Negeri 068007 Medan Tuntungan. Data were collected through observations, reading tests, interviews, and documentation and analyzed using qualitative and quantitative descriptive techniques. The findings indicate that the cooperative learning model assisted by puzzle media increased students' participation and improved their ability to recognize letters, blend syllables, and read simple words and sentences. Learning outcomes also improved, as demonstrated by an increase in the number of students achieving the Minimum

Mastery Criterion. The study concludes that integrating cooperative learning with puzzle media effectively supports the development of beginning reading skills by creating a more active, collaborative, and engaging learning environment. These findings provide practical implications for primary school teachers seeking interactive instructional strategies to address early literacy difficulties and strengthen students' participation and reading achievement.

Keywords: Beginning Reading Skills; Classroom Action Research; Cooperative Learning; Learning Outcomes; Puzzle Media

INTRODUCTION

Reading ability is one of the four fundamental language skills, alongside listening, speaking, and writing (Aisyah et al., 2020; Dalimunthe & Ikhwati, 2025; Tarigan et al., 2023). Reading itself serves as a means of acquiring knowledge, developing skills, and obtaining various forms of information. Reading ability constitutes an essential aspect that must receive serious attention for all students from an early age (Dewi, 2022; Frans et al., 2023). Reading proficiency cannot be achieved easily unless students are accustomed to reading from the beginning of their educational journey (Mahun & Khoiriyah, 2019). Furthermore, the attainment of this skill requires the implementation of effective instructional models. Reading is an activity that is indispensable for individuals, particularly students, as it enables them to examine texts critically, comprehend vocabulary, obtain information, and understand various concepts related to the learning process. Moreover, reading contributes to time efficiency, enhances students' mental horizons, supports effective oral communication, facilitates examination preparation, and provides numerous other educational benefits (Meliala, 2021; Masada & Evitarini, 2022).

Cooperative learning is an instructional model that employs a small-group or team-based system consisting of four to six students with heterogeneous characteristics in terms of academic ability, gender, race, and ethnicity (Fajriah et al., 2024; Rahmi et al., 2024). The implementation of cooperative learning supported by puzzle media has been shown to improve the early reading ability of second-grade students at SD Negeri 068007 Perumnas Simalingkar during the 2025/2026 academic year.

In conventional classroom practices, students tend to listen to the teacher's explanations and take notes without actively participating in the learning process. This

condition reflects a discrepancy between the ideal learning environment and the actual situation observed in the classroom. Ideally, students should be actively engaged throughout the instructional process. However, in reality, the majority of students remain passive and demonstrate limited confidence in asking questions or expressing their opinions. When the teacher poses questions, only a small number of students actively respond, while the others remain silent. Furthermore, some students pay insufficient attention to the teacher's explanations and instead choose to engage in conversations with their classmates. These conditions indicate that the level of classroom participation among second-grade elementary school students remains relatively low.

In addition to the low level of student participation, another problem identified was students' limited understanding of Indonesian language learning materials. Based on interviews with the Grade II teacher at the elementary school, it was found that the majority of students experienced difficulties in learning to read. The challenges observed included underdeveloped foundational reading skills, incomplete mastery of letter recognition, difficulties in distinguishing letter sounds, and challenges in blending syllables into words.

Grade II students also demonstrated a low interest in reading, as many perceived reading to be boring or difficult, resulting in reluctance to practice regularly. Furthermore, their limited concentration often caused them to become easily distracted during the learning process.

In addition to student-related factors, teachers at SDN 068007 stated that these learning difficulties were also influenced by students' family backgrounds and environmental conditions. Several students at the school received insufficient attention and support from their parents, as many parents were unable to adequately assist their children in preparing for school or providing essential necessities, such as breakfast.

This situation also affects children's development. Inadequate nutrition may hinder both brain and physical development, making it more difficult for students to comprehend and absorb learning materials. In addition, several school-related factors also contributed to the problem, particularly the use of less appropriate instructional methods. Teachers implemented reading instruction using methods with limited variation, which caused students to become bored and made it more difficult for them to understand the learning materials. In fact, young learners should be provided with appropriate learning media and opportunities to learn through play-based activities.

The low level of student learning outcomes was reflected in the daily assessment scores obtained by the students. Based on data provided by the Grade II teacher, many students still scored below the Minimum Mastery Criterion (MMC) established by the school. Of all students in Grade II, only a small proportion achieved the required level of mastery, while the majority continued to obtain low scores. These findings indicate that the learning objectives of Indonesian reading instruction had not yet been achieved optimally. In addition to affecting learning outcomes, students' low participation and limited understanding also had a negative impact on the classroom learning environment.

Students who had difficulty understanding the learning materials tended to become bored and showed little interest in participating in classroom activities. Consequently, during the learning process, some students continued to talk with their classmates, play by themselves, or pay insufficient attention to the teacher's explanations. As a result, the classroom atmosphere became less conducive, preventing the learning process from being implemented effectively. If these conditions are allowed to persist, they will result in more serious consequences. Students will increasingly perceive mathematics as a difficult and uninteresting subject. Consequently, students' learning motivation will continue to decline, and they will become less confident in participating in mathematics learning.

In addition, students' critical thinking and problem-solving skills are unlikely to develop optimally, even though these competencies are essential for everyday life as well as for succeeding at higher levels of education. Considering these challenges, a strategic effort is required to support second-grade students at SD 068007 Simalingkar in developing their reading skills. One potential approach is the implementation of more diverse instructional models that actively engage students throughout the learning process. The appropriate selection of instructional models and learning strategies is expected to enhance students' active participation, facilitate their understanding of the learning materials, and create a more engaging and enjoyable classroom environment that fosters greater interest and motivation in learning.

Several instructional strategies have been developed to improve students' reading skills through the use of puzzle-based learning media. The implementation of puzzle media in second-grade classrooms has demonstrated a significant improvement in students' early reading skills. Based on the results obtained from two learning cycles, a substantial increase was observed in the number of students who achieved the Minimum Mastery Criterion

(Kriteria Ketuntasan Minimal/KKM). This improvement can be attributed to the effectiveness of puzzle media as an instructional tool that creates engaging and attention-grabbing learning experiences. Puzzle media provides students with a more interactive and enjoyable learning environment, thereby increasing their motivation to actively participate in the learning process (Rulianto et al., 2025). Furthermore, puzzle media encourages students to think critically and creatively while completing the assigned tasks, enabling them to construct a deeper understanding of the learning materials (Suryany & Sholihat, 2025).

The implementation of puzzle media in this study has been proven effective in improving students' reading abilities by employing phonetic techniques and utilizing engaging reading materials. Students were encouraged to actively identify the sounds within words and associate them with their corresponding letters through the process of solving puzzles (Ungau et al., 2023). This approach not only strengthened their phonetic skills but also deepened their understanding of the relationship between letters and sounds, which constitutes the fundamental basis of early reading instruction. Furthermore, the use of puzzles as a medium for beginning reading instruction offers an innovative approach that can enhance instructional effectiveness while providing students with an engaging and enjoyable learning experience. Recommendations for the implementation of puzzle media in reading instruction include introducing additional puzzle variations, such as word puzzles or crossword puzzles, which may further stimulate students' learning interest. Moreover, it is essential to integrate puzzle activities with relevant reading materials and to ensure that the level of puzzle difficulty is appropriately adjusted to students' reading proficiency. Collaboration with other instructional methods, accompanied by regular evaluation, represents an additional strategy that can enrich the learning experience and further optimize students' reading development.

METHODS

This study employed the Classroom Action Research (CAR) method to improve students' early reading skills through the implementation of a cooperative learning model assisted by puzzle media. The research was conducted at SD Negeri 068007 Medan Tuntungan during the second semester of the 2025/2026 academic year, specifically in March 2026. The research participants consisted of 17 second-grade students of SD Negeri 068007 Medan Tuntungan, while the object of the study was the enhancement of students' early

reading skills through the implementation of a cooperative learning model supported by puzzle media in Indonesian language instruction.

The study was conducted in two research cycles. Each cycle comprised four stages: planning, action, observation, and reflection, following the Classroom Action Research model proposed by Suharsimi Arikunto in 2013 (Hermina, 2025; Muchali, 2022; Saputra, 2024). Each cycle consisted of two instructional meetings and one evaluation meeting to assess students' reading abilities. The findings from the reflection stage in each cycle served as the basis for revising and improving the instructional intervention in the subsequent cycle until the predetermined research success indicators were achieved.

Data were collected through classroom observations, reading ability tests, interviews, and documentation. Observation was employed to examine teacher performance and students' active participation throughout the instructional process (Tyas et al., 2024; Prasetyo & Abduh, 2021). Reading ability tests were administered to measure the improvement of students' early reading skills. Interviews were conducted with the classroom teacher to obtain information regarding the initial conditions of the learning process, while documentation served as supporting evidence, including students' achievement records, photographs of learning activities, and other documents relevant to the study.

The collected data were analyzed using both descriptive quantitative and descriptive qualitative approaches. Quantitative analysis was employed to calculate the mean scores and the percentage of students achieving learning mastery, whereas qualitative analysis was used to describe the observational findings concerning teacher performance and students' learning activities throughout the instructional process (Nursyam, 2019; Pramudya, 2019; Islamiah et al., 2025). The research was considered successful when at least 80% of the students achieved scores exceeding the Minimum Mastery Criterion (Kriteria Ketuntasan Minimal/KKM) established by the school and demonstrated increased active participation throughout the learning process.

RESULTS

This classroom action research was conducted in Grade II of SD Negeri 068007 Medan Tuntungan, involving a total of 17 students as the research participants. The study was implemented over two cycles, each consisting of the stages of planning, action implementation, observation, and reflection. Prior to the implementation of the intervention,

the researcher conducted classroom observations of the Indonesian language learning process to identify the students' initial early reading proficiency. In addition, a pretest was administered to all students to assess their baseline abilities in letter recognition, syllable reading, word reading, and reading simple sentences.

The pretest results indicated that the students' early reading proficiency remained relatively low. Of the 17 students, only 5 students (29.41%) achieved scores above the Minimum Mastery Criterion (Kriteria Ketuntasan Minimal/KKM) established by the school, which was set at 70. Meanwhile, 12 students (70.59%) had not yet attained the expected level of mastery, with the class achieving a mean score of 52.17. These findings demonstrate that the majority of students continued to experience difficulties in recognizing letters, combining syllables into words, and reading simple sentences fluently. Furthermore, the observational data revealed that students exhibited limited engagement throughout the learning process. Most students merely listened to the teacher's explanations without actively participating in classroom activities, while several students appeared inattentive, engaged in conversations with their peers, and lacked the confidence to read aloud in front of the class. These conditions indicate that the instructional process remained predominantly teacher-centered, thereby highlighting the need for an instructional model capable of enhancing both students' active participation and their early reading proficiency.

Based on these conditions, the researcher implemented a cooperative learning model supported by puzzle media in Cycle I. During the instructional process, the students were organized into several heterogeneous small groups. Each group was provided with puzzle media consisting of letter, syllable, and word fragments that had to be arranged into words or simple sentences. Throughout the learning activities, the teacher guided the students to collaborate, engage in group discussions, and take turns reading the completed puzzle arrangements aloud. The use of puzzle media increased students' interest in participating in the learning process, as the instructional activities were presented in the form of games that were aligned with the developmental characteristics of elementary school students.

The results of the implementation in Cycle I demonstrated an improvement compared with the initial condition. The students began to exhibit greater learning interest, participated more actively in group discussions, and showed increased confidence in reading aloud in front of the class. Nevertheless, several students continued to experience difficulties in distinguishing letter sounds, blending syllables, and reading fluently. Based on the

evaluation results, the number of students who achieved the minimum mastery criterion increased to seven students (41.18%), while ten students (58.82%) had not yet attained the Minimum Mastery Criterion (KKM). The class mean score also increased to 70.58. The observation results indicated that the teacher's instructional activities achieved a score of 70%, which was categorized as good, whereas the students' learning activities obtained a score of 60%, categorized as fairly good. Although improvements were evident, these results had not yet fulfilled the research success indicators because the level of classical learning mastery had not reached the predetermined target of 80%.

Based on the reflection conducted after Cycle I, the researcher introduced several improvements in Cycle II. The teacher delivered the instructional material more clearly, increased the amount of reading practice using puzzle media, provided individualized guidance to students who experienced reading difficulties, and offered motivation and rewards to students who actively participated in the learning process. These improvements were intended to enhance students' self-confidence, encourage more active participation, and enable them to develop a better understanding of the learning materials.

The implementation of the intervention in Cycle II demonstrated a highly positive transformation. Students appeared considerably more enthusiastic throughout the learning process, actively participated in group discussions, and were able to arrange letters into syllables, words, and simple sentences with greater accuracy. The classroom atmosphere became more dynamic, as nearly all students were actively engaged in the learning activities. The use of puzzle media not only facilitated students' understanding of the instructional material but also enhanced their learning motivation, collaborative skills, and confidence in reading aloud in front of the class.

The evaluation results obtained in Cycle II revealed a substantial improvement compared with those of the previous cycle. Of the 17 students, 15 students (88.23%) achieved scores above the Minimum Mastery Criterion (MMC), while only 2 students (11.77%) had not yet attained the expected level of mastery. The class mean score increased to 88.23. Accordingly, the research success indicator was achieved, as the level of classical learning mastery exceeded the predetermined benchmark of 80%. This improvement in students' learning outcomes indicates that the implementation of the cooperative learning model supported by puzzle media effectively enhanced the beginning reading skills of second-grade students at SD Negeri 068007 Medan Tuntungan.

DISCUSSION

The discussion section aims to analyze, interpret, and explain the research findings critically. Authors should connect the findings with the research problems, research objectives, hypotheses where applicable, relevant theories, previous literature, and the research context. The discussion should not merely repeat the results; rather, it should demonstrate the meaning, contribution, implications, and limitations of the study in a reflective and argumentative manner. The main components of the discussion include the following. The findings of this study indicate that the implementation of a cooperative learning model assisted by puzzle media has a positive impact on both the learning process and students' learning outcomes. Cooperative learning provides students with opportunities to collaborate, exchange ideas, and support one another in understanding the learning materials. The interactions among students during group activities foster a more active and student-centered learning environment. Furthermore, the use of puzzle media offers a concrete and enjoyable learning experience, enabling students to recognize letters, arrange syllables, read words, and comprehend simple sentences more effectively.

The improvement in learning outcomes, as reflected by the increase in the mean score from 52.17 in the pretest to 70.58 in Cycle I and further to 88.23 in Cycle II, demonstrates that the implemented intervention successfully achieved the objectives of the study. In addition to improving students' early reading skills, the implementation of the cooperative learning model assisted by puzzle media also enhanced students' active participation, self-confidence, collaborative skills, and learning motivation throughout the instructional process. These findings are consistent with previous studies reporting that puzzle media create a more engaging learning environment, increase student involvement, and facilitate students' understanding of the relationships among letters, syllables, and words through active and enjoyable learning activities.

Based on the overall findings, it can be concluded that the implementation of a cooperative learning model assisted by puzzle media is effective in improving the early reading skills of second-grade students at SD Negeri 068007 Medan Tuntungan. This effectiveness is evidenced by the improvement in students' learning outcomes, their increased active participation throughout the learning process, and the achievement of classical learning mastery by the end of Cycle II. Therefore, the cooperative learning model assisted by puzzle media may serve as an effective alternative instructional approach for

teaching the Indonesian language, particularly in enhancing early reading skills among elementary school students.

The findings of this study imply that the implementation of a puzzle-assisted cooperative learning model can serve as an effective instructional alternative for improving the early reading skills of elementary school students. In addition to enhancing learning outcomes, this instructional model promotes students' active participation, collaboration, self-confidence, and learning motivation through interactive and enjoyable learning activities. Therefore, teachers may adopt this learning model as one of the instructional strategies to create a more student-centered Indonesian language learning environment that is aligned with the developmental characteristics and learning needs of elementary school learners.

This study has several limitations. First, it was conducted in only one classroom involving a total of 17 students at SD Negeri 068007 Medan Tuntungan. Second, the study employed a Classroom Action Research (CAR) design implemented over two instructional cycles. Consequently, the findings remain limited to the specific context and characteristics of the research participants. Therefore, further studies involving larger sample sizes, different educational levels, and more diverse research designs are recommended to generate more comprehensive findings with greater generalizability.

CONCLUSION

Based on the findings of the classroom action research conducted over two cycles, it can be concluded that the implementation of the cooperative learning model assisted by puzzle media was effective in improving the beginning reading skills of second-grade students at SD Negeri 068007 Medan Tuntungan in the 2025/2026 academic year. The implementation of this learning model successfully created a more active, engaging, and enjoyable learning environment, thereby increasing students' motivation to participate in the learning process.

The improvement in students' beginning reading skills was evident from the progressive enhancement of their learning outcomes across each research cycle. During the pretest stage, only 5 out of 17 students (29.41%) achieved the Minimum Mastery Criterion (MMC), with a class average score of 52.17. Following the implementation of the cooperative learning model assisted by puzzle media in Cycle I, the number of students who achieved mastery increased to 7 students (41.18%), with the class average score rising to 70.58.

Furthermore, a more substantial improvement was observed in Cycle II, in which 15 students (88.23%) successfully met the MMC, with the class average score reaching 88.23. These findings indicate that the research success indicator was successfully achieved, as the level of classical learning mastery exceeded the predetermined threshold of 80%.

In addition to improving students' learning outcomes, the implementation of the cooperative learning model assisted by puzzle media also enhanced students' classroom participation, collaboration, self-confidence, and interest in learning throughout the instructional process. Through activities involving the arrangement of letters, syllables, words, and simple sentences using puzzle media, students were able to develop a better understanding of beginning reading concepts. Therefore, the cooperative learning model assisted by puzzle media can be considered an effective alternative instructional approach for improving students' beginning reading skills in Indonesian language learning at the elementary school level.

Future studies are recommended to investigate the effectiveness of puzzle-assisted cooperative learning by involving larger and more diverse samples across different educational levels and school contexts to improve the generalizability of the findings. In addition, researchers are encouraged to employ various research designs, such as quasi-experimental, mixed-methods, or longitudinal approaches, to examine the long-term impact of this instructional model on students' reading development. Further research may also explore the integration of digital puzzle media, compare different cooperative learning models, or examine additional variables, including students' reading motivation, critical thinking skills, and learning engagement, to provide a more comprehensive understanding of factors influencing early reading achievement in elementary education.

REFERENCES

- Aisyah, S., Yarmi, G., Sumantri, M. S., & Iasha, V. (2020). Kemampuan Membaca Permulaan melalui Pendekatan Whole Language di Sekolah Dasar. *Jurnal Basicedu*, 4(3), 637–643. <https://doi.org/10.31004/basicedu.v4i3.393>
- Dalimunthe, K. F., & Ikawati, E. (2025). Urgensi Penguasaan Empat Keterampilan Berbahasa dalam Pembelajaran Bahasa Indonesia di Sekolah Dasar. *MUDABBIR Journal Research and Education Studies*, 5(2), 4217–4225. <https://doi.org/10.56832/mudabbir.v5i2.2223>
- Dewi, N. K. H. L. (2022). Penerapan Model Pembelajaran Kooperatif dengan Penggunaan Media Puzzle untuk Meningkatkan Kemampuan Membaca Siswa Kelas 1 SDN 6

- Batur. *Jurnal Pendidikan DEIKSIS*, 4(2), 31–39.
<https://jurnal.markandeyabali.ac.id/index.php/deiksis/article/view/115>
- Fijriah, H., Ningsih, S. Y., & Gusmaneli. (2024). Penerapan Strategi Pembelajaran Kooperatif dalam Pembelajaran PAI untuk Meningkatkan Keterampilan Kerjasama Siswa. *Ta'rim: Jurnal Pendidikan dan Anak Usia Dini*, 5(2), 8–21.
<https://doi.org/10.59059/tarim.v5i2.1177>
- Frans, S. A., Ani, Y., & Wijaya, Y. A. (2023). Kemampuan Membaca Pemahaman Siswa Sekolah Dasar. *Diligentia: Journal of Theology and Christian Education*, 5(1), 54–68.
<https://doi.org/10.19166/dil.v5i1.6567>
- Herminalina, D. (2025). Penelitian Tindakan Kelas. *Jurnal Riset Multidisiplin Edukasi*, 2(6), 727–743. <https://journal.hasbaedukasi.co.id/index.php/jurmie/article/view/539>
- Islamiah, U., Supriatin, A., & Mahmudah, I. (2025). Penggunaan Media Konkret dalam Meningkatkan Hasil Belajar Siswa Kelas II pada Materi Pecahan di SDIT Al Qonita. *Numerical: Jurnal Matematika dan Pendidikan Matematika*, 9(1), 146–160.
<https://doi.org/10.25217/numerical.v9i1.6300>
- Machali, I. (2022). Bagaimana Melakukan Penelitian Tindakan Kelas bagi Guru? *Indonesian Journal of Action Research*, 1(2), 315–327. <https://doi.org/10.14421/ijar.2022.12-21>
- Mahsun, M., & Koiriyah, M. (2019). Meningkatkan Keterampilan Membaca melalui Media Big Book pada Siswa Kelas IA MI Nurul Islam Kalibendo Pasirian Lumajang. *Bidayatuna: Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, 2(1), 60–78.
<https://doi.org/10.36835/bidayatuna.v2i1.361>
- Masada, C., & Evitarini, A. (2022). Meningkatkan Kemampuan Membaca Cepat Siswa dengan Teknik Skimming dan Scanning melalui Layanan Bimbingan dan Konseling. *Jurnal Review Pendidikan dan Pengajaran*, 5(1), 114–119.
<https://doi.org/10.31004/jrpp.v5i1.5347>
- Meliala, J. (2021). *Analisi Kecepatan Membaca dan Keterpahaman Siswa terhadap Isi Bacaan pada Mata Pelajaran Bahasa Indonesia Kelas V SD Negeri 060936 Medan Johor Tahun Ajaran 2020/2021* [Skripsi, Universitas Quality].
- Nursyam, A. (2019). Peningkatan Minat Belajar Siswa melalui Media Pembelajaran Berbasis Teknologi Informasi. *Ekspose: Jurnal Penelitian Hukum dan Pendidikan*, 18(1), 811–819.
<https://doi.org/10.30863/ekspose.v18i1.371>
- Pramudya, E., Kristin, F., & Anugraheni, I. (2019). Peningkatan Keaktifan dan Hasil Belajar IPA pada Pembelajaran Tematik Menggunakan PBL. *Naturalistic: Jurnal Kajian dan Penelitian Pendidikan dan Pembelajaran*, 3(2), 320–329.
<https://doi.org/10.35568/naturalistic.v3i2.391>
- Prasetyo, A. D., & Abduh, M. (2021). Peningkatan Keaktifan Belajar Siswa melalui Model Discovery Learning di Sekolah Dasar. *Jurnal Basicedu*, 5(4), 1717–1724.
<https://doi.org/10.31004/basicedu.v5i4.991>
- Rahmi, D. A., Ma'wa, J., & Alim, J. A. (2024). Analisa Metode Pembelajaran Kooperatif Jigsaw untuk Meningkatkan Keaktifan dan Hasil Belajar Siswa. *Lencana: Jurnal Inovasi Ilmu Pendidikan*, 2(1), 35–41. <https://doi.org/10.55606/lencana.v2i1.2970>
- Rulianto, U. F. F. M., Hasanah, H., & Zahro, I. (2025). Pengaruh Media Papan Jari Pintar terhadap Kemampuan Numerasi Dasar Anak Usia 5–6 Tahun di TK Anisa

- Kebonsari Jember. *Jurnal Kajian Ilmu Pendidikan*, 6(2), 652–664. <https://doi.org/10.55583/jkip.v6i2.1449>
- Saputra, E. E. (2024). Peningkatkan Hasil Belajar Bahasa Indonesia melalui Metode Role Playing. *Journal of Information System and Education Development*, 2(1), 1–5. <https://doi.org/10.62386/jised.v2i1.43>
- Suryany, M., & Sholihat, N. (2025). Pengembangan Kecerdasan Logika Matematika Anak melalui Game Permainan Bingo pada Anak SD. *JIMU: Jurnal Ilmiah Multidisipliner*, 3(4), 2472–2485. <https://doi.org/10.70294/jimu.v3i04.1046>
- Tarigan, Y. H. B., Cipta, N. H., & Rokmanah, S. (2023). Pentingnya Keterampilan Berbahasa Indonesia pada Kegiatan Pembelajaran Sekolah Dasar. *Didaktik: Jurnal Ilmiah PGSD STKIP Subang*, 9(5), 829–842. <https://doi.org/10.36989/didaktik.v9i5.2032>
- Tyas, Y. C., Fardani, M. A., & Kironoratri, L. (2024). Peningkatan Aktivitas Belajar Siswa Menggunakan Model Make a Match Berbantuan Media Kartu Kata. *Jurnal Papeda: Jurnal Publikasi Pendidikan Dasar*, 6(1), 78–88. <https://doi.org/10.36232/jurnalpendidikandasar.v6i1.4790>