

Implementing the Merdeka Curriculum through a Deep Learning Approach in Primary Education: A Case Study of SD Negeri 1 Cintarasa, Garut Regency

Fitri Eka Silviani¹, Ayu Puji Rahayu^{2*}, Nurul Aziza³, Ika Sartika⁴
Institut Pendidikan Indonesia (IPI) Garut, Indonesia^{1,2,3,4}

Correspondence e-mail : ayupujirahayu14@institutpendidikan.ac.id

Abstract: Curriculum reforms are continually implemented in Indonesia to improve the quality of national education and foster student-centered learning. One breakthrough is the implementation of the Merdeka Curriculum with a deep learning approach, which emphasizes meaningful, mindful, and joyful learning, thereby encouraging students to actively understand, apply, and reflect on their knowledge in ways that are relevant to their lives. This study aims to determine the understanding of school administrators and teachers regarding the concept of the Merdeka Curriculum based on deep learning and its implementation at SDN 1 Cintarasa. This study uses a descriptive qualitative approach to understand in depth the process of implementing the Merdeka Curriculum with a deep learning approach in the real context of school learning. Data collection was conducted using several techniques, namely observation, semi-structured interviews, and document analysis. These three techniques were used to strengthen the data through triangulation.

Keywords: Merdeka Curriculum, Deep Learning Approach, Primary Education

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Introduction

Improving the quality of education in Indonesia is currently focused on developing learning that is not only oriented toward mastery of material but also toward higher-order thinking skills, character, and students' readiness to face real-life challenges. Furthermore, in the era of digital transformation and the Industrial Revolution 4.0, the world of education faces new demands to create a generation capable of critical, creative, collaborative, and communicative thinking (Wati & Nurhasannah, 2024). Therefore, curriculum changes are necessary to respond to the changes occurring in the times (Arafat et al., 2025). This requires changes not only in the learning content but also in how teachers deliver material. The deep learning approach addresses the challenges of 21st-century basic education by fostering a more meaningful, critical learning process and adapting to rapid global change. The deep learning approach emphasizes meaningful cognitive engagement through conceptual understanding, reflective thinking, and the ability to transfer knowledge across contexts. Contextual learning in the Merdeka Curriculum (Kurikulum Merdeka) can create a participatory, collaborative, and reflective learning environment. Students become more active in the learning process and demonstrate improvements in higher-order thinking (Nurmalia et al., 2025). Research also shows that the deep learning

approach improves students' critical thinking, problem-solving, and conceptual understanding (Warman et al., 2025).

The deep learning approach in education differs from the terminology of artificial intelligence (AI) in a pedagogical context. Deep learning refers to meaningful, mindful, and joyful learning that can shift the focus of education from merely transmitting superficial knowledge to more reflective, meaningful experiences (Haq & Prasetyo, 2025). These principles align with the objectives of the Merdeka Curriculum, which aims to develop a holistic Pancasila Student Profile through authentic assessment and contextual learning that is responsive to student needs.

Although the Merdeka Curriculum with a deep learning approach offers schools conceptual freedom and autonomy, its implementation at the elementary school level still faces complex challenges. Various studies have examined the application of deep learning at both the primary and secondary levels. For example, research by Maulana et al. (2025) at SDN-SN Pasar Lama 1, Banjarmasin, found that a deep learning approach can improve learning quality in lower elementary grades but requires adaptation to students' cognitive development and systemic support. Other research findings indicate that deep learning is grounded in the principles of mindfulness, meaningfulness, and joy, which encourage student-centered learning that is relevant to real life. Implementation strategies such as project-based learning, problem-based learning, collaborative learning, and technology integration have been shown to improve conceptual understanding, critical thinking skills, creativity, collaboration, and communication (Mukhoyaroh et al., 2025).

At SDN 1 Cintarasa, as in many other elementary schools, improving competency in implementing deep learning remains a challenge, primarily because of a limited focus on targeted, sustainable strategies. *Several previous studies* have shown that challenges such as time constraints and varying teacher understanding of the deep learning approach exist. Strong school management support and ongoing mentoring can overcome these obstacle (Saputra et al., 2025). This aligns with Irfanuddin et al. (2025) who stated that the implementation of the Merdeka Curriculum with a deep learning approach still faces obstacles such as limited facilities, limited teacher understanding of the deep learning concept, and varying levels of student engagement. Nevertheless, the enthusiasm of teachers and students in implementing active discussions shows strong potential for deepening learning. Furthermore, according to Zainun & Arifin (2024) its success depends on policy, improved teacher competency, and systemic support across stakeholders.

In addition, according to Fauziah & Zuhri (2025), to improve teachers' understanding of the implementation of the Merdeka Curriculum with a deep learning approach, a combination of training, adaptive teaching modules, and professional mentoring is a key factor in the success of implementing Deep Learning in elementary schools, so that it has the potential to become a model of teacher mentoring that can be replicated in other elementary education contexts. Nurmalia et al. (2025) also revealed that to improve the success of the implementation of deep learning, it is recommended that there be ongoing training for educators and strengthening of educational facilities to ensure the successful implementation of the Merdeka Curriculum in shaping student character and competencies that are relevant to the demands of the 21st century. Furthermore, research by Sudirman & Pandang (2025) on the integration of deep learning into curriculum reform underscores that the success of curriculum innovation depends not only on policy direction but also on comprehensive educational reform and the continuous professional growth of educators, which will enable them to

prepare students to face future challenges. In line with the previous, Fitrah et al. (2025) explain that transforming national education policy to foster teacher readiness to adopt deep learning requires local training and partnerships with professional organizations, higher education institutions, and NGOs to generate systemic support for school reform.

As an elementary school located in a rural area, SD Negeri 1 Cintarasa, Garut Regency, faces both challenges and opportunities in implementing the deep learning-based Merdeka Curriculum. Limited learning technology facilities, varying student literacy skills, and teacher readiness to implement innovative learning designs are factors that require systematic assessment. Furthermore, students' close ties to the natural environment and social life offer significant potential for developing contextualized learning grounded in real-life experiences. Therefore, further study of the implementation of the Merdeka Curriculum using a deep learning approach at SD Negeri 1 Cintarasa is essential. The results of the field study are expected to provide a comprehensive overview of ongoing learning practices, the level of implementation of deep learning principles, and identify supporting and inhibiting factors as a basis for improving the quality of learning in elementary schools, particularly in rural settings.

Furthermore, several previous studies have discussed the Merdeka Curriculum and the deep learning approach in the context of elementary education, particularly for improving learning quality and developing 21st-century competencies. However, research that simultaneously examines school administrators' and teachers' understanding, learning implementation practices, and the real challenges faced at the educational unit level, particularly in rural elementary schools, remains relatively limited. Most studies emphasize policy aspects or the effectiveness of specific learning methods, without fully linking these to the readiness of school actors and the contextual conditions in which the curriculum is implemented. Consequently, a comprehensive understanding of how the deep learning-based Merdeka Curriculum is understood, implemented, and addressed in rural elementary schools remains unclear.

Based on this gap, this study aims to examine the implementation of the deep learning-based Merdeka Curriculum at SD Negeri 1 Cintarasa and identify the various challenges that arise during its implementation, stemming from human resources, infrastructure, and classroom learning dynamics. Therefore, the research findings are expected to provide an empirical contribution in the form of a contextual overview of the implementation of the deep learning-based Merdeka Curriculum in rural elementary schools and serve as a basis for consideration in efforts to improve learning quality and strengthen school capacity.

Methodology

This research uses a descriptive qualitative approach, aiming to deeply understand the implementation process of the Merdeka Curriculum using a deep learning approach in the real-life context of school learning. A qualitative approach was chosen because it allows researchers to explore phenomena holistically, naturally, and contextually, particularly learning practices, teacher-student interactions, and classroom dynamics. In this study, researchers were involved in the situations and settings of the phenomena being studied (Basrowi, 2008).

This research was conducted at Cintarasa 1 Public Elementary School, Garut Regency. Subjects included the principal, class teachers, and students directly involved in the Merdeka Curriculum-based learning process. Subjects were selected purposively, based on their direct involvement in the implementation of the learning.

Data collection was conducted through several techniques: direct observation to observe the classroom learning process, teacher strategies, student engagement, and the application of deep learning principles. Semi-structured interviews to explore teachers' and principals' understanding of the Merdeka Curriculum and deep learning practices, as well as student responses. Documentation studies, such as teaching modules, formative assessments, learning tools, and teacher documentation related to previous learning activities, were conducted. These three techniques were used to strengthen the data through triangulation.

Data analysis was conducted continuously throughout the research process, with the following stages (Sugiyono, 2019):

- a. Data reduction, which simplifies and focuses data from observations and interviews on relevant aspects. The data obtained is quite extensive, so it needs to be carefully and in detail recorded. Data reduction means summarizing, selecting the main points, and focusing on the important points.
- b. Data display: After data collection, analysis, and reduction, the data obtained are then presented. The next stage is data presentation. In qualitative research, data presentation can take the form of brief descriptions, charts, relationships among categories, flowcharts, and the like. According to (Miles & Huberman, 1994), the most frequently used method for presenting data in qualitative research is narrative text.
- c. Conclusion drawing, through the interpretation of emerging patterns related to the implementation of the Merdeka Curriculum and the deep learning approach.

The research was conducted in accordance with ethical principles, including maintaining the confidentiality of subjects' identities, obtaining the school's approval, and avoiding interventions that could disrupt the learning process.

Result and Discussion

1. Result

The Merdeka Curriculum has been gradually implemented over the past three years, starting with grades 1 and 5, followed by grades 2 and 4. In the initial phase, schools focused on acclimatizing teachers to new concepts such as differentiated learning, formative assessment, and the development of flexible teaching modules. Over time, classroom teachers who implemented it demonstrated improved skills in designing more student-centered learning experiences, resulting in more active, enthusiastic students, and were accustomed to a learning model that emphasizes exploration and direct engagement.

In the new academic year, 2024-2025, SDN 1 Cintarasa introduced a deep learning approach as part of its learning innovations to further strengthen the implementation of the Merdeka Curriculum. Although this approach is still new to the school, not all teachers have received formal training or direct technical assistance from relevant agencies. However, this has not prevented them from independently understanding the concepts and practices of deep learning through various resources, such as online platforms, learning videos, webinars, and educational discussion forums on social media. This was expressed by the vice principal named "RF" that:

"We haven't received any training directly from the government, but thankfully,

we're looking for information, as we're in the digital era, so it's not difficult to find. After practising, it turns out that it's been implemented before. Some have been implemented, but perhaps now it's more targeted and better aligned with the curriculum's demands. For example, learning that requires awareness has been studied since yesterday, and this social-emotional learning has been implemented. Still, perhaps there are differences in the language, even though what is meant is deep learning." (November 26, 2025)

In their daily learning practices, teachers at SDN 1 Cintarasa have strived to implement a student-centered learning approach. They have begun utilizing the school's environment, located in a village and plantation area, as a learning resource to provide contextual learning. Students are encouraged to observe their surroundings, engage in group discussions, and solve problems through activities relevant to their lives. Differentiated learning models have also begun to be integrated with group discussions and problem-solving through activities relevant to their lives. Differentiated learning models have also begun to be integrated, adapting learning methods, materials, and media to meet students' needs and learning readiness.



Figure 1. Student learning activities utilizing the surrounding environment



Figure 2. Collaboration in learning

On the other hand, the implementation of the Merdeka Curriculum at SDN 1 Cintarasa this academic year has been further strengthened by the introduction of a deep learning approach, which emphasizes in-depth understanding, conceptual connections, and higher-order thinking skills. Although this approach is still relatively new, teachers have strived to integrate it into the learning process by designing more

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engaging, challenging, and meaningful learning activities for students. This aligns with the sentiment expressed by teacher "DV," who stated:

"I tried to integrate it with the In-Depth Learning Implementation Plan (RPM). I read it first to understand the syntax, then I prepared it for classroom learning because it depends on us. If we have the will to implement it... It's definitely possible. We don't have to wait for official training and mentoring; we have to actively study and learn it ourselves, and it's possible." (November 27, 2025)

This illustrates that amidst change and the introduction of new approaches, there is a constant effort to strive for the best for the development and progress of teaching and learning activities. During teaching and learning, students are encouraged to understand the importance of their learning. This is not just about understanding the material, but also about relating it to and implementing it in their daily lives.

In teaching and learning activities, the first step teachers take is to plan the lesson to ensure it is well-structured. Then, they analyze students' readiness for the material to be taught. The next step is to use a variety of learning approaches tailored to the students' conditions, the material to be taught, and the learning objectives. Positive student responses were observed during the learning activities. This was expressed by a student, "PA," who stated:

"Now, learning is fun, especially when it's done outside of class. I understand better and don't get bored. I also enjoy science because I can ask lots of questions about other countries and sometimes watch movies with my friends". (November 27, 2025)

Another student, "MR," shared her views on the learning activities she experienced this semester. She said:

"The learning was fun, although sometimes it got boring if it was only in the classroom. But it was fun because learning math was fun, and the teacher explained it until I understood". (27 November 2025)

In line with this, researchers also asked the class in general and in class about their responses to the learning activities implemented at school. On average, they enjoyed the many outdoor learning activities and the interactive learning through group discussions, role-playing, and so on. They were also enthusiastic about the various activities offered at school, including extracurricular opportunities that could foster their curiosity and interests.

Although implementation went quite well, the school still faced several challenges. Teachers in several classes that had been implementing the Merdeka Curriculum for only 1 year needed mentoring to strengthen their understanding and practice. Limited facilities and learning resources also hampered the implementation of differentiated learning and project activities. Another challenge in implementing the Merdeka Curriculum with a deep learning approach was the teachers' readiness to facilitate learning. Teachers still needed a deeper understanding of the concept of the Merdeka Curriculum with a deep learning approach. Assessments in the Merdeka Curriculum have been designed to be more authentic. Teachers conduct diagnostic

assessments at the beginning of the lesson to map student abilities and characteristics, followed by ongoing formative assessments.

2. Discussion

The implementation of the Merdeka Curriculum at SDN 1 Cintarasa demonstrates a unique dynamic in the school-level curriculum change process. The gradual implementation over the past three years demonstrates that the school has entered a curriculum transition process, as Fullan (2007) explained that curriculum change requires time, adaptation, resource support, and the readiness of key actors, namely teachers.

In the initial phase, the Merdeka Curriculum was implemented, starting with grades 1 and 5, followed by grades 2 and 4. This gradual approach served as an initial adjustment for teachers to the dynamics of curriculum change, with changes implemented gradually and adjusted to the school's readiness. Classroom teachers who had implemented the curriculum for three years demonstrated improved competency in designing student-centered learning, including the ability to implement formative assessment and differentiated learning.

On the other hand, grades 3 and 6, which had just implemented the Merdeka Curriculum, were in the early implementation stage, so it was understandable that their pedagogical and administrative readiness was not yet on par with teachers in other grades. This aligns with Darling-Hammond (2006) findings, which stated that teachers need time to build a conceptual understanding of the new curriculum before they can implement it consistently. The introduction of a deep learning approach in the new school year represents the school's effort to strengthen meaningful learning. This approach emphasizes in-depth understanding, connecting ideas, analytical skills, and reflection. Deep learning occurs when students are able to connect, expand, and apply knowledge to new contexts.

In contrast, teachers at SDN 1 Cintarasa have not received formal training on deep learning. The mismatch between curriculum demands and training support indicates that the implementation of deep learning is often hampered by a lack of direct training and professional guidance. However, teachers overcome this by self-study through digital platforms, webinars, social media, and academic discussions. This indicates that teachers are engaging in informal professional learning, which, according to Eraut (2004), can occur through social interaction, practical experience, and access to digital information, albeit in an unstructured manner.

This situation reflects the modern learning culture of teachers who use technology and information networks to enhance their pedagogical competence. As Lieberman & Pointer Mace (2008) emphasized, 21st-century teachers learn significantly from online communities and knowledge-sharing practices. In general, integrating deep learning into education offers significant potential to improve the quality of the learning process (Al-Am et al., 2025). In terms of learning practices, teachers at SDN 1 Cintarasa have implemented student-centered learning by utilizing village and plantation environments as learning resources. This approach aligns with the research findings of Hmelo-Silver et al. (2007), which emphasized that experiential learning and real-world contexts encourage active student cognitive engagement through exploration, reflection, and independent knowledge construction.

The implementation of differentiated learning also aligns with the findings of Putri & Elizar (2025), who demonstrated that a differentiated approach to teaching

allows teachers to adapt content, processes, and learning products to accommodate variations in student readiness, interests, and learning profiles, thereby optimally enhancing student engagement and understanding. Although learning practices have demonstrated the application of deep learning principles, their implementation has not yet been comprehensive in administrative aspects such as teaching modules, ATP, authentic assessments, and learning documentation. This aligns with Fullan (2007) framework, which states that curriculum change often occurs more quickly at the practical level than at the administrative level because the impact of practice can be seen immediately, whereas administration requires a supporting structure and formal training.

The implementation of the Merdeka Curriculum at SDN 1 Cintarasa has brought a new dynamic to the learning process, especially since the introduction of the deep learning approach as a foundation for strengthening student learning. Although the deep learning approach is still relatively new, the teachers' enthusiasm for understanding it is clearly evident in the independent steps they take. Their commitment to continuous learning has enabled them to bridge the gaps in training that are not yet fully available. The enthusiasm of the teachers at SDN 1 Cintarasa demonstrates a strong sense of agency, or professional independence. This demonstrates a characteristic that, according to Darling-Hammond (2006), is essential in a modern education system that demands teachers to adapt quickly to changes in the curriculum and new pedagogical methods. Teachers are no longer merely implementers but also designers and lifelong learners.

Teachers at SDN 1 Cintarasa have emphasized the essential philosophy behind this deep learning approach: that education focuses on the process, not the outcome. Meaningful learning occurs when the focus shifts from teaching to the learning process, namely, how students understand, interpret, and reflect on their learning experiences. Classroom observations show that students respond positively to this change in learning approach. As a class, students also demonstrated enthusiasm for project-based learning activities, group discussions, role-playing, and extracurricular activities that enriched their learning environment. This demonstrates that the Merdeka Curriculum, with its deep learning approach, is beginning to foster a more collaborative, exploratory, and enjoyable learning culture.

Thus, the implementation of the Merdeka Curriculum at SDN 1 Cintarasa is progressing in the right direction. Teachers are moving forward with high initiative, students are responding positively, and the school is striving to create a more vibrant learning ecosystem. However, mentoring, continued training, and strengthening of the social-emotional aspects remain challenges that need to be addressed to ensure this learning transformation is more comprehensive and sustainable.

Conclusion

Based on a case study at SDN 1 Cintarasa, it can be concluded that the implementation of the Merdeka Curriculum at this school has been gradual and has shown positive progress, although it still faces various challenges. Teachers in the lower grades (1–5) have a more mature understanding of differentiated learning, authentic assessment, and the development of flexible teaching modules. This has resulted in increased student engagement, a more enjoyable learning environment, and more contextual and student-centered learning.

The deep learning approach, newly introduced this academic year, is one of the school's efforts to strengthen the implementation of the Merdeka Curriculum. Although they have not received formal training, teachers have demonstrated strong initiative in independent learning through various digital platforms, webinars, and community discussions. Deep learning practices are emerging through lessons that encourage in-depth understanding, conceptual connections, and higher-order thinking skills. Students have responded positively, especially to outdoor learning, group discussions, and other interactive activities.

However, significant challenges remain during implementation. Teachers in the sixth-grade class, which has just implemented the curriculum, still require support to strengthen their understanding of the Merdeka Curriculum and deep learning concepts. Limited infrastructure also impacts the smooth implementation of differentiated learning and project activities. Some students carry burdens from home, necessitating a more holistic approach to mindfulness and support.

In terms of assessment, teachers have sought to shift the focus from outcomes to processes. Diagnostic, formative, and summative assessments, rubrics, and student reflections have begun to be used. These assessment practices reflect an effort to view students holistically, both academically and character-wise. However, authentic assessment still requires strengthening in planning, implementation, and documentation. Overall, SDN 1 Cintarasa demonstrates a strong readiness and commitment to continue developing and implementing the Merdeka Curriculum and the deep learning approach. The challenges that arise are not obstacles, but rather opportunities for shared learning for teachers and the school.

References

- Al-Am, M. R., Ilyas, Nisa, R., Rahayu, A. P., & Deswi, M. S. (2025). *Deep Learning*. Afasa Pustaka.
- Arafat, L. Z., Rahayu, A. P., Amalia, A., Asiah, S., Latifah, S., & Yulia, R. (2025). Analisis implementasi kurikulum merdeka di sekolah penggerak jenjang sd. *PANDU: Jurnal Pendidikan Anak Dan Pendidikan Umum*, 3(1), 36–44. <https://doi.org/10.59966/pandu.v3i1.1600>
- Basrowi, S. (2008). Memahami Penelitian Kualitatif. In *Rineka Cipta*.
- Darling-Hammond, L. (2006). Securing the Right to Learn: Policy and Practice for Powerful Teaching and Learning. *Educational Researcher*, 35(7), 13–24.
- Eraut, M. (2004). Informal learning in the workplace. *Studies in Continuing Education*, 26(2), 247–273. <https://doi.org/10.1080/158037042000225245>
- Fauziah, P., & Zuhri, M. T. (2025). Pendampingan Guru dalam Penerapan Pendekatan Deep Learning untuk Optimalisasi Capaian Belajar di SD GIS Prima Insani. *Jurnal Medika: Medika*, 4(4), 1557–1563. <http://jmedika.com/index.php/medika/article/view/481>
- Fitrah, M., Sofroniou, A., Yarmanetti, N., Ismail, I. H., Anggraini, H., Nissa, I. C., Widyaningrum, B., Khotijah, I., Kurniawan, P. D., & Setiawan, D. (2025). Are Teachers Ready to Adopt Deep Learning Pedagogy? The Role of Technology and 21st-Century Competencies Amid Educational Policy Reform. *Education Sciences*, 15(10), 1344. <https://doi.org/10.3390/educsci15101344>
- Fullan, M. (2007). *The New Meaning of Educational Change*. Teachers College Press.
- Haq, M. D., & Prasetyo, N. T. (2025). Deep Learning sebagai Pendekatan

- Transformasional dalam Pendidikan : Sebuah Tinjauan Literatur. *Jurnal Studi Guru Dan Pembelajaran*, 8(3), 1826–1842.
- Hmelo-Silver, C. E., Duncan, R. G., & Chinn, C. A. (2007). Scaffolding and Achievement in Problem-Based and Inquiry Learning: A Response to Kirschner, Sweller, and Clark (2006). *Educational Psychologist*, 42(2), 99–107. <https://doi.org/10.1080/00461520701263368>
- Irfanuddin, F., Selamat, S., & Widodo, H. (2025). Analisis Implementasi Pembelajaran Mendalam (Deep Learning) dalam Kurikulum PAI di SD Negeri 125 Ogan Komering Ulu Sumatera Selatan. *Jurnal Pendidikan Dan Pembelajaran Indonesia (JPPI)*, 5(3), 1566–1576. <https://doi.org/10.53299/jppi.v5i3.1798>
- Lieberman, A., & Pointer Mace, D. H. (2008). Teacher Learning: the Key to Educational Reform. *Journal of Teacher Education*, 59(3), 226–234. <https://doi.org/10.1177/0022487108317020>
- Maulana, M. R., Suriansyah, A., Mulya, A., & Harsono, B. (2025). Implementasi Pendekatan Pembelajaran Mendalam (Deep Learning) pada Siswa Kelas Rendah Sekolah Dasar. *Jurnal Penelitian Ilmiah Multidisipliner (JPIM)*, 02(03), 473–486.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis A Methods Sourcebook*. Sage Publications.
- Mukhoyaroh, M., Sodikin, A., & Waluyo, W. (2025). Implementation of Deep Learning Approaches: Challenges and Solutions for Teachers. *Radiant*, 6(2), 134–146. <https://doi.org/10.52187/rdt.v6i2.335>
- Nurmalia, S. A., Meliani, A., & Rachman, I. F. (2025). Peran Kurikulum Merdeka dalam Mendorong Critical Thinking melalui Pembelajaran Kontekstual. *Jurnal Penelitian Pendidikan Indonesia*, 2(4), 233–242.
- Putri, K., & Elizar. (2025). Implementing a Differentiation Approach in Teaching to Accommodate Diverse Learning Styles of Primary School Students : A Systematic Literature Review. *Journal for Lesson and Learning Studies*, 8(1), 119–128. <https://doi.org/10.23887/jlls.v8i1.89659>
- Saputra, D., Khaniv, C. N., Maharani, I. F., Wakhidah, N., Pratama, E. A., & Rohman, N. (2025). Strategi Implementasi Kurikulum Berbasis Deep Learning dalam Meningkatkan Kompetensi Pedagogik Guru di SD Negeri 1 Damar Jati Jepara. *Psikosospen : Jurnal Psikososial Dan Pendidikan*, 1(2), 1425–1435. <https://www.city.kawasaki.jp/500/page/0000174493.html>
- Sudirman, S., & Pandang, A. (2025). Implementation of Deep Learning Pedagogy in Curriculum Reform: Primary School: Teachers' Perspectives in Indonesia. *International Journal of Learning, Teaching and Educational Research*, 24(11), 618–636. <https://doi.org/10.26803/ijlter.24.11.29>
- Sugiyono. (2019). *Metodelogi Penelitian Kuantitatif dan Kualitatif Dan R&D*. Alfabeta.
- Warman, E., Sajidin, Setiawan, R., Gifary, A., Warta, W., Mulyanto, A., & Hanafiah. (2025). Pendekatan Deep Learning pada Pembelajaran di Sekolah Dasar Gekbrong 1 Cianjur. *Jurnal Pengabdian Masyarakat Dan Riset Pendidikan*, 4(1), 1521–1528. <https://doi.org/10.31004/jerkin.v4i1.1773>
- Wati, S., & Nurhasannah, N. (2024). Penguatan Kompetensi Guru dalam Menghadapi Era Digital. *Jurnal Review Pendidikan Dasar : Jurnal Kajian Pendidikan Dan Hasil Penelitian*, 10(2), 149–155. <https://doi.org/10.26740/jrpd.v10n2.p149-155>
- Zainun, Z., & Arifin, M. (2024). Implementasi Kebijakan Kurikulum Merdeka dan Dampaknya terhadap Kualitas Pembelajaran di Sekolah Menengah Atas. *ITQAN: Jurnal Ilmu-Ilmu Kependidikan*, 15(2), 234–247. <https://doi.org/10.47766/itqan.v15i2.1271>