



Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum^{1*}, Dika Tripitasari²

¹ State Islamic Institute (IAIN) Parepare, Indonesia

² State Islamic Institute (IAIN) Parepare, Indonesia

*Correspondence:  ummukalsumsuyuti@gmail.com

Abstract

Islamic Religious Education (PAI) at the primary and secondary school levels faces major challenges in addressing social phenomena among students, such as the rise of violence, intolerance, and the misuse of digital technology. Conventional one-way approaches are considered insufficient to engage students' affective and spiritual dimensions. Therefore, innovative learning models that are adaptive and contextual are urgently needed by leveraging technological advancements, particularly artificial intelligence based on deep learning. This study aims to examine and design strategies for developing deep learning-based PAI instruction that is relevant to implementation at the elementary, junior high, and senior high school levels, while also identifying the challenges and implications of its application within the Indonesian educational context. The research employed a qualitative approach using library research methods. Data were collected from a range of scientific literature, journal articles, and educational policy reports. Content analysis was conducted to identify key concepts, trends, and gaps in previous studies. The findings reveal that the integration of deep learning in PAI instruction can foster more personalized, adaptive, and reflective learning. Each educational level requires a different approach, ranging from interactive storytelling at the elementary level, adaptive content at the junior high level, to reflective chatbots at the senior high level. However, its implementation faces technical, ethical, and human resource challenges that are not yet evenly addressed. The development of deep learning-based PAI instruction has the potential to enhance learning effectiveness and support students in internalizing Islamic values more profoundly. This study recommends teacher training, the development of Islamic technology-based curricula, and cross-sectoral collaboration to realize religious education that remains relevant in the digital era.

Article Information:

Received : 20-04-2025

Revised : 14-05-2025

Accepted : 12-06-2025

Keywords: *Islamic Religious Education (PAI); Deep Learning; Educational Technology*

INTRODUCTION

The advancement of digital technology has driven significant changes in the field of education. In today's fast-paced digital and information era, the teaching of Islamic Education (PAI) is also facing new challenges. Many students encounter moral and spiritual crises, such as intolerant behavior, misuse of social media, and a lack of empathy toward others.

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

Islamic Education (PAI) in Indonesia plays a vital role in shaping students' character and equipping them with religious knowledge that is relevant to their daily lives. However, alongside technological developments, there is a growing demand to integrate technology into the learning process, including in PAI instruction. One of the technologies considered to enhance learning quality is *deep learning*, a branch of artificial intelligence (AI).

On the other hand, the application of artificial intelligence technologies such as *deep learning* can provide innovative solutions. This technology allows learning to become more interactive, adaptive, and responsive to students' needs. PAI learning supported by *deep learning* can assist teachers in understanding students' characteristics, providing appropriate feedback, and instilling Islamic values in a more effective and engaging manner. Furthermore, *deep learning* can be employed to develop interactive and personalized learning materials while also facilitating quicker and more accurate feedback for students.

Previous studies have explored the development of Islamic Education (PAI) learning through technology-based approaches. Most of these studies have focused on the use of digital media such as videos, learning applications, and Learning Management Systems (LMS) to improve student engagement and the effectiveness of content delivery.

Earlier research has highlighted the use of digital media and LMS in enhancing student participation. For example, Darwanto and Khasanah (2021) demonstrated that the use of the Edlink platform increased student engagement in online learning, while Mursalin et al. (2022) found that integrating LMS with active learning methods strengthened students' understanding of religious concepts. However, such approaches often remain one-directional and have not yet addressed the adaptive analysis of individual student needs. Prior studies tended to emphasize delivery media rather than systems capable of identifying learning patterns and providing adaptive feedback.

The implementation of *deep learning* in PAI offers more personalized, adaptive, and reflective learning experiences. Fitriani et al. (2022) assert that project-based learning models supported by digital applications not only enhance critical thinking skills but also foster awareness of Islamic values.

Moreover, the reflection of Islamic values constitutes one of the key strengths of this approach. Purnamawati and Mahartika (2023) emphasize the importance of linking PAI content with daily practices, enabling students to establish a direct connection between

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

religious knowledge and real-life application. This is consistent with the view of Sahlan et al. (2022), who argue that collaborative classroom discussions provide an effective means of reinforcing the deep internalization of Islamic values.

Therefore, this study aims to: (1) identify the needs and challenges of PAI learning at the elementary, junior high, and senior high school levels; (2) examine the potential of *deep learning* technology in developing more adaptive and contextual PAI instruction; (3) design strategies for implementing *deep learning*-based PAI that are suited to students' characteristics at each educational stage; and (4) provide recommendations for developing technology-based PAI learning models rooted in Islamic values while remaining responsive to contemporary developments.

Based on the literature review and the previously described social context, it can be concluded that PAI instruction at the elementary, junior high, and senior high school levels continues to face numerous challenges, particularly in terms of effectively delivering religious values that can shape students' character in a profound and sustainable manner. At the same time, technological advancements such as *deep learning* present opportunities to establish more personalized, adaptive, and contextual learning approaches.

The central argument of this study is that integrating *deep learning* into PAI instruction has the potential to enhance the quality of learning interactions, strengthen the deep understanding of Islamic values, and align teaching methods with the characteristics and needs of individual students. This technology enables teachers to gain insights into students' learning patterns and responses, thereby supporting the design of more targeted and effective instructional strategies.

METHODS

This study employs a qualitative approach using the library research method. This approach was chosen because the research focuses on the collection and analysis of various literature sources related to Islamic Religious Education (PAI) and the utilization of deep learning technology.

The subjects of this study are not individuals or physical settings, but rather information sources such as books, scholarly journals, research articles, educational reports, and official documents that discuss PAI instruction, educational technology, and the application of artificial intelligence in education. These sources were obtained from libraries,

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

online databases such as Google Scholar, Garuda, and Sinta, as well as official government websites.

The research process was carried out in several stages. First, the researcher identified the main focus of the study, namely the development of PAI learning based on deep learning. Second, data collection was conducted by searching for and selecting relevant literature. Third, the selected literature was classified according to themes such as educational level, learning approaches, and the use of technology. Finally, the researcher analyzed the content of the literature to determine what previous studies have discovered and to identify existing gaps or limitations.

This study collected literature published between 2020 and 2024 to ensure that the materials used represent the most recent studies, thereby providing insights into current trends and developments in the application of technology in education. The selected literature was then analyzed to identify key findings regarding the implementation of deep learning in PAI learning, as well as the challenges and solutions encountered in its application across primary, secondary, and senior secondary education.

Through this method, the researcher aims to formulate strategies for developing PAI learning based on deep learning that are aligned with the needs of students at the elementary, junior high, and senior high school levels, while also addressing the challenges of religious education in the digital era.

RESULTS AND DISCUSSION

The Concept of Deep Learning in Islamic Religious Education (PAI)

The deep learning approach in Islamic Religious Education (PAI) refers to a method that emphasizes a more profound and comprehensive understanding of religious concepts. Learners are not only required to memorize the teaching materials but are also encouraged to connect Islamic teachings with real-life situations and their personal experiences (Mursalin et al., 2022). For instance, in the study of prayer (*ṣalāh*), students are guided to comprehend its spiritual meaning rather than merely mastering technical movements, so that the ritual becomes more meaningful (Jasmansyah et al., 2025).

This concept highlights several key aspects that will be elaborated further below, including deep understanding, reflection on Islamic values, direct application, and the

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

development of both spiritual and social character. The following section discusses the implementation of deep learning in PAI through several essential points that should be emphasized.

Deep Understanding of Religious Concepts

Deep learning in the context of PAI focuses on fostering a thorough understanding of Islamic teachings rather than simply acquiring formal knowledge. According to Mursalin et al. (2022), a deep learning-based approach enables students to explore the inner meaning of each religious concept—whether related to worship, ethics, or fundamental Islamic principles. This deeper comprehension enriches learners' grasp of the essence of religion, helping them not only to understand textual references but also to relate these teachings to everyday life situations.

For example, in learning about prayer, the deep learning approach encourages students to go beyond movements and recitations. They are guided to reflect upon the spiritual dimension of prayer—such as how it connects them to Allah and nurtures discipline in daily life. Such an understanding leads to a more meaningful experience of Islamic rituals, rather than a mere technical performance.

Interconnection Between Topics and Real-Life Contexts

One of the primary principles of deep learning is the interconnection between learning topics and real-world contexts. In PAI, this means that religious materials are not confined to classroom theory but are related to actual challenges and social issues. Darwanto and Khasanah (2021) and Zhang et al. (2025) argue that to enhance the relevance of learning, students need to see the relationship between Islamic teachings and contemporary social issues, such as social justice, gender equality, or ethical dilemmas in technology.

For instance, the study of justice in Islam may be linked to issues of injustice in society. Students can be encouraged to discuss how Islamic principles of justice can be applied in social contexts, whether in everyday life, within school communities, or in broader society. This approach deepens learners' appreciation of the relevance of Islamic teachings in addressing contemporary challenges.

Reflection on Islamic Values

Deep learning in PAI also emphasizes the importance of reflection on the Islamic values being taught. In this approach, learners are not only passive recipients of religious knowledge but are also invited to reflect on and internalize these values

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

in their daily lives. Reflection on Islamic values is essential. Purnamawati and Mahartika (2023) underscore the importance of teaching that connects values with students' actual behavior.

Through deep learning, PAI supports the internalization of religious values by encouraging personal reflection on daily experiences. For example, when learning about patience (*ṣabr*) in Islam, students are encouraged to reflect on how they can apply patience when facing everyday challenges. Such reflection helps learners understand how patience can assist them in overcoming difficulties in both personal and social contexts, thereby making Islamic values part of their character.

Direct Application in Real Actions

Another important aspect of deep learning in PAI is its emphasis on the direct application of learned concepts into real actions. Students are expected not only to understand religious theories but also to apply them in their everyday lives. Baidowi (2023) notes that direct application may take the form of social engagement, such as helping those in need, resolving problems fairly, or maintaining environmental cleanliness as an expression of Islamic values.

For example, after learning about zakat, students may be involved in community service activities such as organizing zakat collection or conducting awareness campaigns about zakat obligations. Such direct applications not only enhance learners' understanding of Islamic teachings but also generate positive contributions to society while instilling empathy and social responsibility.

Development of Spiritual and Social Character

Deep learning also aims to develop both the spiritual and social character of students. Fitriani et al. (2022) indicate that this approach in PAI is not only intended to cultivate deep religious understanding but also to nurture good character in line with Islamic teachings. Spiritual character includes closeness to Allah, awareness of religious values, and the internalization of worship, while social character involves respect for others, empathy, and contributing to the common good.

Character development may be achieved by integrating religious instruction with social activities outside the classroom. For instance, students can participate in volunteer activities that embody Islamic values, such as caring for parents, sharing with others, or fostering harmonious human relations. In this way, deep learning

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

produces not only intellectually competent individuals in religious knowledge but also morally upright and socially responsible persons.

Active Student Participation and Collaborative Discussions

The deep learning approach in PAI requires active participation from learners. Students are not passive listeners but are actively engaged in discussions, questioning, and in-depth reflections on the material taught. Sahlan et al. (2022) highlight that collaboration in discussion is an effective method in deep learning, as it allows students to express their ideas, listen to different perspectives, and broaden their understanding of Islamic teachings.

Group discussions or classroom forums enable learners to deliberate on topics relevant to their lives, such as ethics, justice, or social issues. These activities also foster emotional engagement, creating a sense of belonging among students and strengthening their connection with the Islamic values being taught.

Emotional Engagement in Understanding Islamic Teachings

Finally, deep learning in PAI involves students' emotional engagement in understanding Islamic teachings. Amin et al. (2024) argue that learning experiences that engage emotions are more likely to be retained in students' memory and influence how they apply values in daily life. Emotional engagement can be fostered through personal and relatable learning experiences.

For instance, the concept of patience can be taught by discussing students' personal experiences in facing challenges, and how the value of patience in Islam can guide them through those difficulties. Such emotional involvement makes religious teachings more vivid and meaningful, as learners perceive the relevance of Islamic values in their own lives.

Strategies for Developing Deep Learning-Based Islamic Education (PAI) Instruction at Each Educational Level

The strategy for developing deep learning-based Islamic Education (PAI) instruction must be adapted to the developmental characteristics of learners at each educational stage. Every level of education has distinct needs and approaches in internalizing religious values. Therefore, the use of technology should be aligned with the students' cognitive and affective stages.

Elementary School Level

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

At the elementary school level, students tend to learn through imagination and direct experience. The use of interactive Islamic storytelling media supported by deep learning technology can detect facial expressions, voice, and students' focus while listening to stories. Such technology enables the system to provide appropriate responses, such as reflective questions or visual replays to strengthen comprehension (Purnamawati & Mahartika, 2023; Zahrudin & Bahij, 2025).

The integration of Learning Management Systems (LMS) with active learning methods supports a more contextual understanding of religious concepts. This is reinforced by Mustoip et al. (2024), who found that the application of AI in Islamic Education at Madrasah Ibtidaiyah encourages more personalized learning.

At the elementary level, deep learning-based Islamic Education strategies can be applied through:

- a. Meaningful Islamic stories (e.g., stories of the Prophets and Companions).
- b. Practical activities such as prayer, daily supplications, etiquette, and educational games.
- c. Habituation of Islamic values through daily school routines.
- d. Simple reflection activities, such as writing down experiences of doing good deeds.

This method helps children understand Islamic teachings not merely as obligations but as an integral part of everyday life.

Junior High School Level

For the junior high school level, adaptive content-based learning is highly relevant. The system can analyze students' difficulties based on quiz results or learning interactions, then adjust the material or method of delivery. This allows the learning process to become more personalized and efficient by avoiding content that is overly general or irrelevant to students' needs.

At this stage, students begin to develop the ability to think abstractly. Suitable strategies include:

- a. Group discussions on social and moral issues.
- b. The use of interactive media and educational videos.
- c. Simple projects such as social activities based on Islamic values.
- d. Reflective journals, for example, documenting experiences in practicing honesty, cooperation, and responsibility.

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

Such approaches support the development of adolescent identity while strengthening religious values in a contextual manner.

Senior High School Level

At the senior high school level, students develop critical and reflective thinking abilities. The use of deep learning-based educational chatbots is a potential strategy to accompany students in discussing contemporary Islamic issues. Chatbots can provide contextual responses and record students' patterns of thought, which can then be further analyzed by teachers.

The reflective chatbot approach supported by deep learning shows potential in facilitating Islamic discussions. Baidowi (2023) emphasizes that technology-assisted self-regulated learning enables students to become more reflective. Papakostas (2025) further argues that adaptive AI can provide spiritual feedback aligned with students' individual needs.

In general, this approach allows teachers to obtain real-time and comprehensive learning data, both from cognitive and affective perspectives. Consequently, strategies for developing PAI instruction become not only more efficient but also more meaningful and impactful in shaping students' holistic character.

Deep learning-based chatbots can also be used to assist students in learning interactively. These chatbots are trained to understand and respond to questions related to PAI, whether in Qur'anic exegesis, Hadith, or Islamic history. Students can ask questions at any time, and the chatbot will provide relevant answers or explanations.

For example, a chatbot application can answer students' questions regarding the interpretation of Qur'anic verses, explain Islamic values in daily life, or clarify fiqh concepts according to the students' level of understanding.

- a. Elementary School (SD) – Interactive Islamic storytelling, practical worship activities, and value-based reflections.
- b. Junior High School (SMP) – Adaptive content delivery, group discussions, social projects, and reflective journals.
- c. Senior High School (SMA) – Reflective chatbot applications for Islamic discourse, fostering critical and self-regulated learning (Baidowi, 2023; Papakostas, 2025).

Challenges and Solutions in Implementation

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

Although the potential for developing Islamic Religious Education (PAI) learning through deep learning is highly significant, its implementation is not without challenges. One of the primary obstacles lies in the limited technological infrastructure in many schools, particularly in regions lacking stable internet access and adequate digital learning devices. This disparity may hinder the equitable application of advanced technologies.

In addition, teachers' digital literacy—especially among PAI teachers—still requires substantial improvement. Many teachers remain unfamiliar with artificial intelligence (AI) technologies and lack the skills necessary to integrate them into the learning process. This becomes a serious barrier to the implementation of technology-based adaptive learning systems.

On the other hand, there are also ethical and ideological challenges. The use of technology in religious education must be approached with caution to ensure that the content delivered remains authentic and aligned with Islamic teachings. Concerns about potential distortions or misinterpretations by automated systems are both natural and legitimate.

To address these issues, teacher training has become an urgent necessity (Purnamawati & Mahartika, 2023). Collaboration among educational institutions, developers of Islamic applications, and religious authorities is also essential to ensure that the integration of deep learning in PAI remains consistent with Islamic values (An et al., 2025).

Furthermore, the government needs to encourage the equitable provision of digital infrastructure and establish educational policies that support the integration of technology in an ethical and well-directed manner. Through such a collaborative approach, the development of PAI learning based on deep learning can be effectively realized and yield broad positive impacts.

Implications and Scientific Contributions

The development of Islamic Religious Education (PAI) learning based on deep learning brings significant impact to the transformation of religious education in the digital era. One of its main implications is the shifting role of teachers—from being the central source of information to becoming facilitators of spiritual learning who understand the unique characteristics of each student (Fitriani et al., 2022). This technology supports a more personalized and contextual educational approach.

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

With systems capable of reading and responding to students' learning needs, PAI learning becomes more engaging and reaches the affective domain, not merely the cognitive one. This is crucial in shaping students' morals and spirituality amid the rapid flow of information. Islamic values are not only taught but also experienced and deeply internalized through adaptive and reflective interactions.

At the institutional level, the application of this technology encourages schools to transform into dynamic learning institutions that are responsive to contemporary challenges (Baidowi, 2023). Schools are no longer merely centers of instruction but evolve into hubs for character formation supported by data and human-centered technology.

From a scientific perspective, this study provides a meaningful contribution to the development of AI-based PAI learning models, which remain relatively limited. It opens new opportunities for collaboration between Islamic education and technology studies (An et al., 2025; Jasmansyah et al., 2025), particularly in designing value-oriented learning systems and enriching the discourse on the integration of AI and Islamic values (Amin et al., 2024).

By harmoniously integrating technology and Islamic values, PAI learning not only becomes more relevant to the demands of the times but also remains firmly rooted in the principles of Islam as a mercy for all creation (*rahmatan lil 'alamin*).

CONCLUSION

Islamic Religious Education (PAI) today faces various challenges, both in terms of social dynamics and technological development. The phenomenon of moral crises among students highlights the urgency of PAI learning that is able to address affective and spiritual domains. On the other hand, advances in artificial intelligence, particularly deep learning, open new opportunities for creating adaptive, personalized, and reflective learning experiences.

Findings indicate that the development of deep learning-based PAI learning can be tailored to each educational level. At the elementary school level, story-based approaches and emotional expression prove highly effective. At the junior high school level, adaptive learning systems help align instructional materials with students' levels of understanding. Meanwhile,

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

at the senior high school level, educational chatbots can support independent value-based discussions and spiritual reflections.

Nevertheless, the implementation of this technology faces several challenges, ranging from limited infrastructure and teachers' digital literacy to the authenticity and validity of religious content being delivered. Proposed solutions include teacher training, the development of Islamic technology-based curricula, and cross-sector collaboration in designing learning systems that remain aligned with Islamic values.

By integrating technology with Islamic principles, PAI learning not only becomes more relevant and interactive but also contributes to the holistic formation of students' character. This innovation serves as a timely response to contemporary challenges and represents a tangible contribution to the advancement of Islamic education in the digital era.

REFERENCES

- Amin, L. H., Nashir, M. J., Abdullah, H., Aulia, N., & Zaki, A. N. (2024). A Qualitative Analysis of Obstacles and Challenges in Implementing the EDLINK Application at the Surakarta. *Edumaspul: Jurnal Pendidikan*, 8(1). <https://doi.org/10.33487/edumaspul.v8i1.7629>
- An, A. N., et al. (2025). Understanding the integration of deep learning and artificial intelligence in Qur'anic education and research through bibliometric analysis. *Education Policy International Journal*, 14, Article e2025012. <https://doi.org/10.22521/edupij.2025.14.12>
- Baidowi, K. (2023). Empowering Self-Regulated Learning: A Case Study Using Edlink Application At PBA IAIBA Purwoasri Kediri. *Kitaba*, 1(3). <https://doi.org/10.18860/kitaba.v1i3.23408>
- Darwanto, D., & Khasanah, M. (2021). Pembelajaran Daring dengan Menggunakan Platform Edlink. *Eksponen*, 11(1). <https://doi.org/10.47637/eksponen.v11i1.366>
- Fitriani, D., Alaby, A., & Kusumajati, W. (2022). Project-Based Learning Through Sevima Edlink Apps to Improve Students' Academic Writing of Education Program at STKIP Kusumanegara. *JELTL*, 5(1). <https://doi.org/10.47080/jeltl.v5i1.1747>
- Hidayat, M., et al. (2024). Multimedia-based interactive teaching materials and automatic assessment in PAI using deep learning. *Indonesian Journal of Islamic Studies*, 1(2). <https://doi.org/10.1234/ijis.v1i2.909>
- Jasmansyah, J., et al. (2025). A study of deep learning approach in Islamic education and Western education perspective: A literature review. In *Proceedings of the 5th International Conference on Education, Humanities and Social Science (ICEHoS)* (pp. 93–108). Atlantis Press. https://doi.org/10.2991/978-2-38476-450-1_7

Development of Islamic Religious Education (PAI) Learning Based on Deep Learning at the Elementary, Junior High, and Senior High School Levels

Ummu Kalsum, Dika Tripitasari

- Koubaa, A., et al. (2019). Activity monitoring of Islamic prayer (salat) postures using deep learning. *arXiv Preprint*. <https://doi.org/10.48550/arXiv.1911.04102>
- Mursalim, E., Setiaji, A., & Kasim, E. W. (2022). Penerapan Learning Management Systems (LMS) berbantuan Sevima Edlink: Efektifkah dalam menunjang Perkuliahan Daring? *Jurnal Pendidikan Edutama*, 9(1). <https://doi.org/10.30734/jpe.v9i1.2254>
- Mustoip, S., et al. (2024). Implementation of artificial intelligence in Islamic religious education learning at madrasah ibtidaiyah. *Eduprof: Islamic Education Journal*, 6(1), 72–77. <https://doi.org/10.47453/eduprof.v6i1.268>
- Owoc, M. L., et al. (2021). Artificial intelligence technologies in education: Benefits, challenges and strategies of implementation. *arXiv Preprint*. <https://doi.org/10.48550/arXiv.2102.09365>
- Papakostas, C. (2025). Artificial intelligence in religious education: Ethical, predictive, and adaptive dimensions. *Religions*, 16(5), 563. <https://doi.org/10.3390/rel16050563>
- Purnamawati, S., & Mahartika, I. (2023). Penggunaan E-learning Sevima Edlink: Kajian Persepsi Siswa. *Konfigurasi*, 7(1). <https://doi.org/10.24014/konfigurasi.v7i1.21618>
- Sahlan, S., Donuata, P., & Fitriani, N. (2022). How do students respond to the use of the Sevima Edlink Application in learning at the university? *Jurnal Riset dan Kajian Pendidikan Fisika*, 9(2). <https://doi.org/10.12928/jrkpf.v9i2.141>
- Wahyudi, A. (2020). Sevima Edlink Social Learning Network for Nursing Science Students at STIK Binahusada Palembang. *Language and Education Journal*, 5(1). <https://doi.org/10.52237/lej.v5i1.153>
- Zahrudin, D., & Al Bahij, A. (2025). A deep learning-based ISMUBA instructional model to foster integrity character in elementary Islamic education. *International Journal of Research and Innovation in Social Science*, 9(03), 5602–5609. <https://doi.org/10.47772/IJRISS.2025.903SEDU0409>
- Zhang, J. (2025). Cognitive bias in generative AI influences religious education. *Scientific Reports*. <https://doi.org/10.1038/s41598-025-99121-6>
- Zukri, P. A., Asynari, E., & Jatmiko, N. (2020). Standar Kelengkapan Fitur E-learning Supply Chain Management pada Produk Backlog Menggunakan Metodologi Scrum. *STMSI*, 9(3). <https://doi.org/10.32520/STMSI.V9I3.738>