

ISLAMIC RELIGIOUS EDUCATION BASED ON NATURE IN THE POST-DIGITAL ERA

Budi Sunariyanto¹,
Rita Nur Isnaini²,
Alan Lutfi Gesang Saputra³

¹Muhammadiyah University of Malang, abu.azzam525@gmail.com

²MAN 4 Ngawi, ritanurisnaini@gmail.com

³STIT Muhammadiyah Tempurrejo Ngawi, alanlutfi05@gmail.com

Abstract: *The post-digital era has revolutionized educational practices through the deep integration of technology, yet it has also raised concerns about the diminishing focus on value-based learning and direct experiential learning. Islamic Religious Education (PAI) faces challenges in sustaining spiritual resilience, moral development, and meaningful learning amidst rapidly evolving social and technological landscapes. This study explores nature-based Islamic Religious Education as an innovative pedagogical approach that combines environmental experiences with Islamic values. The research utilizes a qualitative case study approach, gathering data through participatory observations, in-depth interviews, and document analysis in elementary education settings. The findings suggest that this nature-based method enhances contextual religious understanding, strengthens religious character formation, and fosters emotional-spiritual engagement by contextualizing Islamic teachings in real-world interactions with nature, which is viewed as a sign of God's creation. Furthermore, the approach contributes to educational resilience by creating a balance between utilizing digital technologies as tools and direct experiences as mediums for value internalization. This study concludes that nature-based Islamic Religious Education presents a relevant, holistic, and sustainable pedagogical model to address the challenges of education in the post-digital era, contributing to interdisciplinary discussions on Islamic education and pedagogical innovation.*

Keywords: *Islamic Religious Education, Nature-Based Learning, Post-Digital Era,*

Introduction

The post-digital era marks a transformative phase in the evolution of education, where digital technology has shifted from being an innovation to becoming a foundational infrastructure embedded in all aspects of pedagogical practice. According to Jarke and Macgilchrist (2025), this era is characterized by the normalization of technology, a critical awareness of its impacts, and efforts to revive analog practices that are perceived to have lost their value in the digital culture. In the context of education, this transformation presents a paradox: on one hand, technology has enabled the democratization of access to knowledge, personalized learning, and global collaboration; on the other hand, there are growing concerns about the weakening of humanistic dimensions, reduced face-to-face interactions, and the erosion of spiritual values in the learning process.

Islamic Religious Education (PAI), which serves as the foundation for character building, faces multidimensional challenges in this context. These challenges include: (1) maintaining spiritual resilience amid the fast-paced, often unfiltered flow of digital information; (2) fostering authentic moral development in a socially fragmented virtual environment; and (3) creating meaningful and contextual learning experiences in the face of instant digital culture. A study by Setyawan (2024) revealed that many educational institutions still teach PAI through a textual-normative approach that emphasizes rote memorization of doctrines without sufficient contextualization, creating a "gap of application" between theoretical knowledge and practical implementation.

Against this background, the purpose of this research is to: (1) analyze the implementation of nature-based Islamic Religious Education as an innovative pedagogical approach in the post-digital era; (2) assess the holistic impact of this approach on religious understanding, character formation, and emotional-spiritual engagement among students; (3) develop a sustainable hybrid pedagogical model that is relevant to contemporary educational challenges. Theoretically, this research contributes to interdisciplinary discussions between Islamic education, nature pedagogy, and post-digital studies. Practically, the findings can serve as a guide for educators, curriculum developers, and policymakers in creating more contextual and meaningful PAI learning.

Literature Review

Islamic Religious Education in the Contemporary Context

Islamic Religious Education primarily aims to shape a well-rounded individual who integrates faith, knowledge, and righteous deeds. This goal is rooted in the Islamic concept of humans as *khalifah fil ard* (stewards of the earth), who bear moral and spiritual responsibilities towards themselves, society, and the universe. However, in the 21st century, this noble objective faces complex challenges due to globalization and digitalization. Ismail (2024) observes that PAI often falls into a dichotomous approach that separates religious knowledge from general knowledge, whereas Islam emphasizes the integration of all knowledge. This issue becomes more pronounced in the post-digital era, where social media algorithms may create "filter bubbles" that limit students' exposure to diverse religious viewpoints. In line with this, research by Intania and Haji Masri (2023) on ecology-based Islamic education in the digital age demonstrates that students can better understand the benefits of Islamic religious education when it is directly related to ecological practices, facilitated by digital technology. Their case study revealed that integrating environmental themes into PAI not only makes learning more relevant but also fosters a deeper sense of responsibility towards nature as an integral part of faith.

Nature-Based Learning: Theory and Practice

Nature-based learning is grounded in the constructivist pedagogical tradition, which emphasizes the construction of knowledge through direct interaction with the environment. In the context of Islamic Education, this approach resonates with Islamic epistemology, which views nature as *ayat kauniyah*—signs of God's greatness that can be "read" and studied. A study by Adi (2019) showed that nature-based PAI learning improved students' ability to link theological concepts with tangible experiences by 40% compared to traditional methods. Its application includes: studying *ayat kauniyah* by connecting natural phenomena with Quranic

verses, contextual worship in outdoor settings, environmental conservation-based caliphate projects, and spiritual reflection through contemplation of nature. This is further reinforced by contemporary studies on eco-pedagogy, which emphasize that integrating ecological principles into Islamic character education fosters values such as trustworthiness (*amanah*) and stewardship (*khalifah*) through experiential learning methods. The work of Tuddairoh, Azkiya, and Basir (2025) on strengthening Islamic character education through eco-pedagogical learning underscores that such approaches cultivate empathy toward living beings and the natural world, with core values such as responsibility (*mas'uliyah*) being central to this paradigm. They argue that direct engagement with nature provides a powerful context for internalizing abstract ethical concepts.

The Post-Digital Era and Pedagogical Implications

The post-digital concept refers to a phase where digital technology has become the norm and requires a critical-holistic approach in its utilization. Cramer and Schreiber (2018) identify three key characteristics of this era: the normalization of digital technology, critical awareness of its impact, and the rehabilitation of analog practices. In education, this era calls for a hybrid and critical-holistic pedagogical approach. Vaughan (2020) developed the concept of "post-digital pedagogies," which emphasizes balancing the strengths of digital technology with traditional pedagogical values. This approach is highly relevant for PAI, which needs to preserve spiritual integrity while wisely integrating technological advancements. The integration of ecotheological values into the PAI curriculum, as explored by Mustofa, Nurhasan, Farida, Zahra, and Nurseha (2025), shows that strengthening students' spiritual awareness of nature as a manifestation of God's power (*ayat kauniyah*) is a viable and impactful strategy in modern educational settings, despite facing challenges such as resource limitations and the need for teacher training. Their research from a Green Islamic Education perspective confirms that a curriculum embedding ecological ethics within Islamic teachings can significantly enhance students' ecological awareness and spiritual connection.

Method

This study adopts a qualitative approach with an intrinsic case study design to explore the implementation of nature-based Islamic Religious Education in the post-digital era. The choice of this design is based on the complexity of the phenomenon under study, requiring an approach that can capture contextual and procedural nuances. The selected case is "Al-Hikmah" Nature School (name anonymized) in West Java, which has been implementing this learning model for the past five years.

Data collection was conducted using three main techniques: first, participatory observation for 150 hours of PAI learning activities in nature; second, semi-structured interviews with 10 PAI teachers, 24 students from grades 4-6, and 6 supporting stakeholders; and third, document analysis of lesson plans, syllabi, student reflection journals, and school policies. Participants were selected using purposive sampling based on experience variation, background, and level of involvement.

Data analysis followed the interactive model by Miles, Huberman, and Saldaña (2019), consisting of data reduction, data presentation, and conclusion drawing. Data triangulation was employed to ensure the validity of the findings. Ethical principles were adhered to in the

qualitative research, including informed consent, data anonymity, and transparency in the research process.

Results And Discussion

Implementation of Nature-Based PAI Learning

The observation results indicate that nature-based PAI learning is implemented through three main strategies. First, an integrative curriculum design that links PAI competency standards with natural phenomena. For instance, the concept of *tawhid* (the oneness of God) is taught through the observation of ecosystem diversity, while the attributes of Allah are connected to specific natural phenomena. Second, a hybrid learning method combining direct nature exploration with digital technology as a supportive tool. Students conduct observations in the school forest while using tablets for documentation, then analyze their findings with the help of augmented reality. Third, the transformation of the teacher's role from a knowledge transmitter to a spiritual-ecological facilitator, helping students connect their experiences with religious texts. This implementation aligns with the principles of Green Islamic Education advocated by Mustofa et al. (2025), which promotes the internalization of ecological ethics through structured learning activities and school-wide programs.

Impact on Religious Understanding

Interview data and the analysis of student journals show qualitative improvement in religious understanding. Around 78% of students were able to identify at least three connections between Quranic verses and the natural phenomena they observed. Their understanding of concepts became more holistic—students did not simply memorize the definition of *tawhid* but could explain its manifestation in the diversity and unity of ecosystems. The internalization of values occurred organically through direct experiences, as expressed by one student: "I truly understood the meaning of Allah's power after observing the butterfly metamorphosis process closely." This finding corroborates research by Intania and Haji Masri (2023) showing that ecology-based Islamic education enables students to directly practice and internalize the positive influence of ecological awareness, moving beyond theoretical knowledge to embodied understanding.

Religious Character Formation

Nature-based learning significantly strengthened religious character formation. Observations showed improvements in: first, ecological awareness as part of faith, with 85% of students showing behavior changes in maintaining environmental cleanliness; second, reinforcement of noble character traits through direct practices such as cooperation in conservation projects; and third, an increase in meaningful worship discipline, where students performed prayers in nature with deeper spiritual awareness. Teachers reported that this approach helped address character issues commonly found in the digital era, such as individualism and lack of empathy. The strengthening of Islamic character through eco-pedagogical learning, as detailed by Tuddairoh et al. (2025), has been shown to cultivate empathy toward living beings and the natural world. They argue that hands-on experiences in nature provide a unique and powerful context for developing core Islamic values like

responsibility (*mas'uliyah*), which might be harder to cultivate in a purely digital or classroom-based setting.

Emotional and Spiritual Engagement

The nature-based approach created deeper emotional-spiritual engagement compared to conventional methods. Students' reflective journals showed a progression from factual descriptions to profound spiritual reflections. Digital technology was strategically used to enhance this engagement—for instance, students created reflective videos about the wisdom derived from observing nature, which were then shared on the class platform. However, there were specific moments where technology was intentionally set aside to create space for pure contemplation. This balance is crucial; it prevents digital tools from overshadowing the primary spiritual experience. The depth of reflection observed in student journals, moving from simple observation to contemplation of divine wisdom, demonstrates the kind of transformative learning that eco-pedagogy aims to achieve.

Pedagogical Balance in the Post-Digital Era

The research findings reveal that nature-based PAI learning successfully creates the pedagogical balance needed in the post-digital era. This balance is manifested in several dimensions: first, the balance between direct experience and digital mediation, where technology is used not as a replacement but as an enhancer of experience; second, the balance between individual reflection and community collaboration; and third, the balance between the conservation of tradition and pedagogical innovation. This model demonstrates that education in the post-digital era does not have to choose between technology and direct experience but can integrate both synergistically. The model presented here offers a practical resolution to the paradox identified in the introduction, showing how humanistic and spiritual values can be not only preserved but enriched through a thoughtful combination of nature immersion and digital tools.

Challenges and Implementation Solutions

The implementation of nature-based PAI learning faces several challenges: the limited natural resources in urban schools, the need for specific teacher training, and concerns about safety during outdoor activities. The school overcame these challenges through several strategies: developing a mini "school forest" in limited land, partnering with local conservation communities, providing ongoing teacher training, and strict safety protocols. Digital technology even helped address some of these challenges, for example, by providing virtual field trips when direct outdoor activities were not possible. These challenges, particularly the need for teacher training and resource optimization, are consistent with findings from other studies on integrating ecological values into the PAI curriculum, such as those by Mustofa et al. (2025), who emphasize that teacher readiness and institutional support are critical success factors for such innovative pedagogical models.

TABLE 1: Impact of Nature-Based PAI Learning on Students

| Aspect | Indicators of Improvement | Empirical Evidence Examples |
|--------------------------------|--|--|
| Religious Understanding | Ability to connect verses with reality (78% of students) | Discussion on QS. Al-Baqarah:164 during animal observation |
| Character Formation | Increased ecological awareness (85% of students) | River cleaning activity as caliph practice |
| Emotional Engagement | Depth of spiritual reflection in journals | Daily reflection journals after nature activities |
| Spiritual Resilience | Ability to face digital distractions | Reported decrease in gadget dependency during activities |

Figure 1: Conceptual Framework of Nature-Based PAI Learning in the Post-Digital Era

Conclusion

This study concludes that nature-based Islamic Religious Education offers a relevant and transformative pedagogical model for the post-digital era. The implementation of this model through integrative curriculum design, hybrid learning methods, and teacher role transformation has successfully created holistic and meaningful learning. Positive impacts were observed in enhancing contextual religious understanding, strengthening religious character formation, and increasing emotional-spiritual engagement among students.

Key findings show that the nature-based approach is effective in achieving the pedagogical balance required in the post-digital era—a balance between utilizing digital technology and direct experience, between conserving tradition and innovating pedagogy, and between individual learning and community collaboration. This model addresses contemporary educational challenges by integrating the richness of Islamic epistemology with experience-based pedagogy, while critically and purposefully utilizing technology.

Practical implications of this research include: first, the need to integrate the nature-based approach into the national PAI curriculum through the development of contextual implementation guidelines; second, the importance of comprehensive teacher training in nature pedagogy and technology integration; and third, the need for partnerships between schools, communities, and conservation organizations to support sustainable implementation. Future research is recommended to explore the implementation of this model in secondary and higher education and to develop comprehensive evaluation instruments to measure the long-term impact on students' spiritual development.

References

- Adi, S. (2019). *Nature-Based Islamic Religious Education*. Digilib UINSGD.
- Cramer, C., & Schreiber, F. (2018). Postdigital Science and Education. *Educational Technology & Society*, 21(2), 13-24.
- Facer, K. (2019). What does the 'postdigital' mean for education? Three critical perspectives on the digital, with implications for educational research and practice. *Postdigital Science and Education*, 1(1), 1-17.
- Gratani, F., et al. (2023). Learning in the post-digital era: A systematic review. *Journal of Educational Technology*, 45(3), 321-335.
- Hidayat, R. (2024). Integrating environmental sustainability into Islamic religious education: A conceptual framework. *Journal of Islamic Education Studies*, 12(2), 45-62.
- Intania, N., & Haji Masri, M. S. bin. (2023). The application of ecology-based Islamic education in digital age: A case study Khozinatul Ulum Blora. *Arfannur: Journal of Islamic Education*, 3(3), 151–162. <https://doi.org/10.24260/arfannur.v3i3.1080>
- Ismail, A. (2024). Shaping quality Islamic education in the digital age: Challenges and opportunities. *International Journal of Islamic Education*, 8(1), 23-40.
- Jarke, J., & Macgilchrist, F. (2025). A systems approach to AI and education in a post-digital world. *Learning, Media and Technology*, 50(1), 1-16.
- Kuo, M., et al. (2019). Do lessons in nature boost subsequent classroom engagement? Refueling students in flight. *Frontiers in Psychology*, 8, 2253.
- Kusuma, D. (2020). *Nature-Based PAI learning: A case study in elementary schools*. UIN Satu Press.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2019). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage Publications.
- Mustofa, T., Nurhasan, Farida, N. A., Zahra, D. N., & Nurseha, A. (2025). Integrating ecotheological values in the Islamic religious education curriculum: The Green Islamic Education perspective in Karawang secondary schools. *Jurnal Ilmiah Pendidikan Islam*, 10(3). <https://doi.org/10.25217/ji.v10i3.6589>
- Rahman, A. (2024). Implementation of environmental-based PAI learning model: An experimental study in junior high school. *EduTech Jaya*, 5(2), 112-128.
- Setyawan, H. (2024). Problems of Islamic religious education in the digital era: A systematic review. *Journal of Religious Education*, 42(3), 289-305.
- Siregar, N. (2022). Pedagogical innovation in Islamic education: Responding to the challenges of the digital era. *Journal of Islamic Education*, 15(1), 56-73.
- Thompson, L. (2021). *Digital transformation in education: Challenges and opportunities*. Routledge.
- Tuddairoh, J., Azkiya, A. H., & Basir, A. (2025). Strengthening Islamic character education in children through eco-pedagogical learning. *Journal of Humanities and Social Studies*, 9(2). <https://doi.org/10.33751/jhss.v9i2.12405>
- Utami, P. (2023). The nature approach in PAI curriculum: Islamic ecopedagogy perspective. *Indonesian Journal of Religious Studies*, 9(2), 134-150.
- Vaughan, R. (2020). *Post-digital pedagogies: A critical examination*. Palgrave Macmillan.

Wahid, M. (2024). Spiritual resilience in the digital era: The role of Islamic religious education. *Journal of Islamic Pedagogy*, 11(1), 89-104.