

Integrating Learn with Nature Approach in Islamic Religious Education to Foster Environmental Care among Primary School Students

¹. Yuli Yanti, ². Imam Syafe'i, ³. Junaidah
^{1,2,3}. Universitas Islam Negeri Raden Intan Lampung, Indonesia
¹. yulieyantii1085@gmail.com ². imamsyafei@radenintan.ac.id
³. Junaidah@radenintan.ac.id

ABSTRACT

This study investigates the integration of environmental care values into Islamic Religious Education through the Learn with Nature approach to foster environmental responsibility among primary school students. The study responds to the limited application of experiential and nature-based learning in Islamic Religious Education, particularly in connecting Islamic stewardship values with practical environmental actions. Using a qualitative field research design, data were collected through classroom and outdoor observations, semi-structured interviews with two Islamic Religious Education teachers, one principal, and twenty students, as well as document analysis of lesson plans, curriculum materials, and student work. The data were analyzed thematically through data reduction, data display, and conclusion drawing, supported by triangulation and member checking. The findings show that the Learn with Nature approach was implemented through activities such as waste sorting, gardening, tree planting, and nature observation, which were linked to Islamic concepts of *khalifah*, responsibility, and ethical care for creation. Students demonstrated increased environmental awareness, active participation, and stronger moral understanding of environmental care. This study implies that Islamic Religious Education can serve as a strategic medium for developing ecological character when religious values are integrated with experiential, nature-based learning.

Keywords: *Learn with Nature, Islamic Religious Education, Environmental Care, Experiential Learning, Stewardship*

INTRODUCTION

The growing global environmental crisis has become a prominent issue that demands immediate attention and action. Environmental degradation, climate change, and the depletion of natural resources threaten not only the sustainability of ecosystems but also the well-being of future generations (Aladejare, 2023; Henderson & Loreau, 2023). In Indonesia, environmental concerns are particularly relevant due to rapid urbanization, deforestation, and pollution, which have led to significant ecological damage (Erwiningsih, 2023; Rahman dkk., 2024). Addressing these issues requires a multi-faceted approach, including fostering ecological awareness and responsibility from a young age. As such, environmental education has gained recognition as a crucial component of the educational curriculum globally.

In this context, Islamic Religious Education (IRE) plays a significant role in shaping students' moral and ethical perspectives (Alhamuddin & Ikin Asikin, 2025; Fasyiransyah dkk., 2025). As one of the foundational subjects in Indonesian primary education, IRE offers an opportunity to instill values that can guide students' interactions with the natural world. Islam's teachings on the environment highlight the importance of sustainability, stewardship, and the moral responsibility of humans to protect God's creation (Ali & Agushi, 2024; Asikin, 2025). In recent years, there has been increasing interest in integrating environmental education into religious teachings, as religious principles often align with sustainable practices (Khoirurrijal dkk., 2025; Marshall, 2025; Masturin, 2025). This alignment presents an opportunity to develop character education that emphasizes both spiritual and environmental stewardship.

However, despite the emphasis on character education in Indonesia, there is limited research that explores how Islamic values can be effectively integrated with environmental care in the classroom, particularly through experiential learning approaches. This research gap highlights the potential for innovative pedagogies that engage students with their environment in meaningful ways.

The study draws on character education theories and the Learn with Nature (LWN) approach to develop a framework for integrating environmental care values into IRE. Character education refers to the deliberate effort to instill moral and ethical values that guide individuals in making responsible decisions and engaging in prosocial behaviors

(Salgado dkk., 2025). In the context of this research, the focus is on developing environmental care as a core character trait, where students are taught not only to understand environmental issues but also to feel responsible for and act upon them (Casmana dkk., 2023; Okada & Gray, 2023).

The Learn with Nature (LWN) approach, rooted in experiential learning theory (Eroğlu & Bektaş, 2022; Taneja dkk., 2024), posits that students learn best when they engage directly with their environment through hands-on, immersive experiences. By interacting with nature, students can observe and reflect on ecological systems, developing a deeper connection to the environment. This approach fosters nature connectedness, which has been shown to enhance environmental attitudes and behaviors (Begum dkk., 2025; Otto & Pensini, 2017; Sellmann & Bogner, 2013). Thus, combining the LWN approach with Islamic principles of stewardship and environmental justice offers a unique model for environmental care education.

Recent studies have explored the integration of environmental education with religious and character education. In Indonesia, character education is often integrated into religious subjects, but environmental concerns remain underemphasized. According to (Parker, 2017), religious education in Indonesia has the potential to shape students' environmental consciousness, but more explicit connections between religious values and environmental care are needed. Studies by (Bolton, 1997; Metcalfe dkk., 2024; Parker, 2017) support this, noting that while schools often focus on character development through moral and ethical teachings, there is insufficient emphasis on the environment in religious curricula.

Internationally, researchers have examined how experiential learning through nature can foster environmental responsibility. Capaldi et al. (2021) found that outdoor learning significantly increased students' environmental attitudes, emphasizing the value of engaging with nature to foster sustainable behaviors. In a study by (Collado dkk., 2020), students involved in nature-based education demonstrated greater empathy toward the environment and were more likely to participate in conservation activities. These studies underscore the importance of integrating hands-on, experiential learning with environmental education to enhance students' ecological consciousness.

Despite these advancements, a significant gap remains in integrating Islamic education with environmental care through experiential learning. While environmental

care is present in Islamic teachings, few studies explore how this can be effectively incorporated into primary school curricula through methods like the LWN approach. This gap underscores the need for research that combines religious education, environmental care, and experiential learning in a manner that resonates with students' spiritual, moral, and ecological development.

While numerous studies have emphasized the importance of environmental education and character development, few have specifically focused on the intersection of Islamic Religious Education and environmental care within the context of experiential learning (Akhmad, 2022). Previous research has highlighted the potential of environmental education in religious contexts (Al Khansa dkk., 2024; Marshall, 2025; Parker, 2017), but the integration of Learn with Nature as a pedagogical tool for internalizing environmental values in Islamic education has not been thoroughly explored. The current study seeks to fill this gap by examining how the LWN approach can be employed in Islamic education to foster environmental care among primary school students.

This study makes several novel contributions to the field of education. First, it is one of the first to explore the integration of Islamic values with environmental care through the Learn with Nature approach in primary education. By combining the spiritual teachings of Islam with hands-on learning experiences in nature, this study proposes a new model for environmental character education that not only promotes ecological awareness but also fosters a sense of spiritual stewardship. Additionally, the study provides empirical evidence of how experiential learning in a religious context can influence students' attitudes and behaviors toward the environment, offering valuable insights for educators and policymakers seeking to develop more holistic, contextually relevant curricula.

The primary objectives of this study are:

1. To explore how the Learn with Nature approach can be integrated into Islamic Religious Education (IRE) to internalize environmental care values.
2. To assess the impact of this integrated approach on students' environmental attitudes and behaviors.
3. To investigate how Islamic teachings on environmental stewardship can be translated into practical, nature-based learning experiences in primary schools.

This introduction has outlined the global and local relevance of integrating environmental care into education, with a focus on Islamic Religious Education. By

adopting the Learn with Nature approach, this study aims to develop a new pedagogical model that promotes both spiritual and ecological responsibility. Through a critical analysis of the literature, the study identifies key gaps in the existing research and highlights the potential for combining religious teachings and experiential learning to enhance environmental care among students. The research objectives are designed to fill this gap and contribute to the development of more effective and contextually relevant educational practices.

METHOD

This study employed a qualitative approach with a field research design to explore the internalization of environmental care character values in Islamic Religious Education (IRE) through the Learn with Nature (LWN) approach at Bintang Madani Al-Qur'an Elementary School in Lampung, Indonesia. A qualitative design was selected because the study focused on understanding the process, meaning, and educational experiences related to the integration of Islamic values and environmental care in real learning contexts (Creswell & Poth, 2018). The study was conducted over two months from January to February 2026. During this period, the researcher observed classroom and outdoor learning activities, interviewed key participants, and analyzed relevant school documents. The duration allowed the researcher to examine not only the planning and implementation of the LWN approach but also students' responses and behavioral changes during the learning process. (Flick, 2018). Data were collected through observation, semi-structured interviews, and document analysis (Phillippi & Lauderdale, 2018; Valdés & Mendoza, 2025). These documents were used to support and verify data obtained from observations and interviews (Bowen, 2009; Waluyo dkk., 2025).

RESULTS AND DISCUSSION

A. Integration of the Learn with Nature Approach into Islamic Religious Education (IRE) for Internalizing Environmental Care Values.

The first objective of this study was to explore how the Learn with Nature (LWN) approach can be integrated into Islamic Religious Education (IRE) to internalize environmental care values. In this context, the LWN approach was conceptualized as an experiential learning method that connects students with nature, encouraging active

participation in environmental conservation while simultaneously teaching the principles of Islamic stewardship (khalifah).

During the planning phase, the school's IRE curriculum was modified to incorporate environmental care as part of the ethical teachings. The integration began with an analysis of existing IRE lesson plans, identifying opportunities to link religious values with environmental concepts. Teachers collaborated to develop new lesson plans that included outdoor activities such as nature walks, plant care, waste management, and tree planting, which were directly tied to Islamic teachings. For instance, the concept of khalifah was central to the curriculum, emphasizing that students, as stewards of the earth, are responsible for its care and preservation.

Table 1.
Integration of Environmental Care into IRE Curriculum

Lesson Topic	Environmental Care Value	Islamic Concept	Activity Involved
	Integrated	Taught	
Stewardship in Islam	Care for nature, responsibility for the environment	Khalifah (stewardship of earth)	Nature walks, tree planting
Waste Management	Reducing waste, recycling	Ethical consumption	Waste sorting, recycling
Biodiversity Awareness	Protecting plants and animals	Respect for all living creatures	Observation of local wildlife

As demonstrated in Table 1, environmental care values such as respect for nature, ethical consumption, and biodiversity conservation were intentionally integrated into the Islamic Religious Education curriculum. In each lesson, students were not only taught the religious perspective on environmental stewardship but also encouraged to participate in real-world activities that reinforced those values.

B. Impact of the Integrated Learn with Nature Approach on Students' Environmental Attitudes and Behaviors

The second research objective focused on assessing the impact of the integrated Learn with Nature (LWN) approach on students' environmental attitudes and behaviors. To evaluate this, both qualitative and quantitative data were collected using pre-assessment and post-assessment surveys, observations, and interviews with teachers and students.

Pre- and Post-Assessment of Students' Environmental Awareness

The pre- and post-assessment surveys aimed to measure students' understanding of environmental issues, their attitudes toward nature, and their participation in environmental activities before and after the implementation of the LWN approach. The survey focused on key environmental themes, such as waste management, water conservation, and biodiversity preservation.

The results from the pre-assessment indicated that many students had limited awareness of their environmental responsibilities. On average, only 40% of students were involved in waste sorting, and just 30% participated in gardening or tree planting activities. However, after the implementation of the LWN approach, the post-assessment showed a significant improvement in students' engagement with these activities. 85% of students participated in daily environmental activities, and 80% were actively involved in tree planting and waste segregation.

Table 2
Pre- and Post-Assessment of Student Environmental Awareness

Environmental Activity	Pre-Assessment (%)	Post-Assessment (%)
Waste Sorting	40%	75%
Participation in Gardening	30%	80%
Tree Planting	25%	70%
Awareness of Environmental Impact	45%	85%

As Table 2 shows, there was a marked increase in students' involvement in environmental activities after the integration of the LWN approach, particularly in areas like waste sorting and gardening. This improvement indicates that the LWN approach has a positive impact on students' environmental attitudes and behavior.

Student Interviews and Teacher Observations

In-depth interviews were conducted with students and teachers to gain qualitative insights into the impact of the LWN approach. Students reported feeling more connected to nature and recognized their role in protecting the environment. One student mentioned, "I feel like I am part of nature, and I want to help keep it clean and safe."

Teachers observed that students became more proactive in taking care of the environment. One teacher stated, "Students who were previously disinterested in

environmental issues are now leading activities like cleaning the school garden and organizing waste management initiatives.”

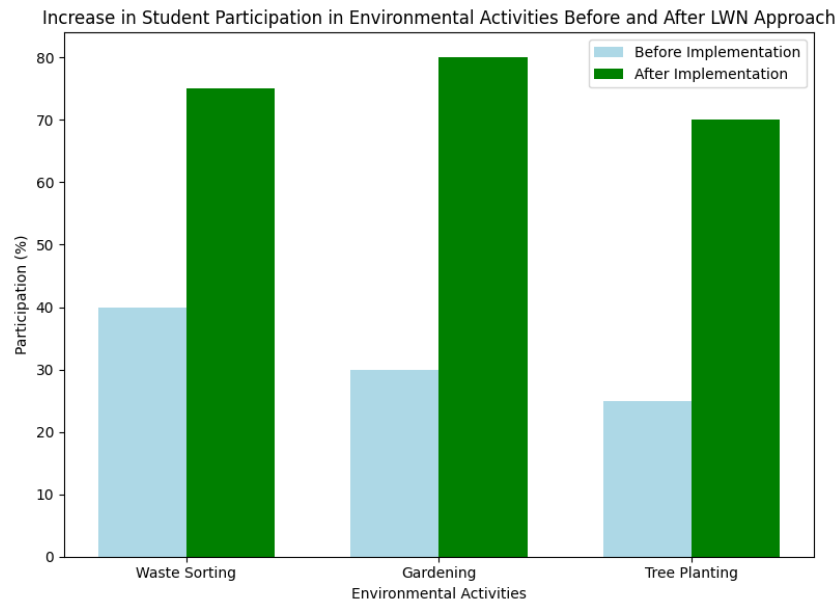


Figure 1.
Student Participation in Environmental Activities

The bar chart (Figure 1) illustrates the increase in student participation in environmental activities before and after the implementation of the Learn with Nature (LWN) approach. Participation in Waste Sorting rose from 40% to 75%, Gardening from 30% to 80%, and Tree Planting from 25% to 70%. This significant improvement demonstrates the effectiveness of the LWN approach in encouraging students to engage in environmental conservation activities. The integration of nature-based learning experiences not only heightened environmental awareness but also motivated students to take an active role in preserving the environment.

C. Translating Islamic Teachings on Environmental Stewardship into Practical, Nature-Based Learning Experiences

The third research objective aimed to investigate how Islamic teachings on environmental stewardship could be translated into practical, nature-based learning experiences in primary schools. The integration of religious values with environmental care was a core element of the LWN approach, and this study revealed that Islamic teachings provided a strong ethical foundation for students' environmental actions.

D. Teaching Islamic Values Related to Environmental Stewardship

Teachers frequently referenced the Islamic concept of khalifah (stewardship) during outdoor activities. This concept emphasizes that humans are caretakers of the earth, and it served as a guiding principle throughout the study. For example, during tree planting activities, students were taught that planting trees is a form of sadaqah jariyah (ongoing charity) in Islam, thus framing environmental conservation as a religious duty.

Teachers also integrated the Islamic teachings of waste management by emphasizing that wasting resources is discouraged in Islam. Students learned that conserving water and reducing waste is not only beneficial for the environment but also an act of fulfilling their Islamic duties.

E. Practical Nature-Based Learning Experiences

Nature-based learning activities were designed to connect students directly with their environment. Students participated in nature walks, where they observed plants, animals, and ecosystems in their natural habitat. During these walks, teachers discussed the interconnectedness of all living things and how Islamic teachings emphasize the protection of biodiversity.

In addition to nature walks, students engaged in gardening activities, where they planted trees, tended to plants, and learned about sustainable practices like water conservation. Through these hands-on experiences, students were able to apply their knowledge of environmental stewardship in a practical, engaging way.

The integration of these Islamic environmental principles into nature-based learning activities allowed students to internalize the values of stewardship and responsibility. As reported in interviews, students began to view environmental care as an essential part of their religious and ethical lives.

The integration of the Learn with Nature (LWN) approach into Islamic Religious Education (IRE) significantly improved students' environmental attitudes and behaviors. The findings show that the LWN approach was successful in internalizing environmental care values by connecting Islamic teachings with hands-on, nature-based learning experiences. The study demonstrated that PBV (Personal Beliefs and Values) related to environmental care could be effectively translated into real-world practices, fostering a culture of responsibility and stewardship among students.

The results indicate that students not only learned about environmental stewardship but also became active participants in preserving their environment, contributing positively to both their community and the broader ecological system.

F. Discussion

This study aimed to examine the integration of the Learn with Nature (LWN) approach into Islamic Religious Education (IRE) and its effectiveness in internalizing environmental care values among primary school students. The integration of Islamic stewardship teachings, particularly the concept of khalifah (stewardship of the earth), provided students with both a spiritual and practical framework for environmental action. This finding is particularly noteworthy as it highlights the role of Islamic education in fostering a deeper sense of environmental responsibility.

Recent international research supports the effectiveness of experiential and nature-based learning in fostering students' environmental stewardship. For example, (Douglas dkk., 2024) found that sustainability education incorporating experiential components significantly increased students' biodiversity knowledge, perceived importance of nature, and self-reported pro-environmental behaviors, including enhanced nature connectedness. Similarly, ecological experiential learning has been shown to positively relate to pro-environmental intentions via emotional responses such as awe and connection to nature (Liu dkk., 2024). Moreover, outdoor environmental education implemented as a nature-based solution has demonstrated positive changes in students' attitudes and behavioral intentions toward conservation (Hsu, 2025).

However, a notable difference lies in the religious context of this study. While global research on environmental education often focuses on secular principles, this study incorporated Islamic teachings on environmental stewardship, which may provide unique motivational factors not present in secular models. The emphasis on khalifah may offer a moral framework that aligns with students' religious beliefs, potentially influencing their attitudes more strongly than secular approaches.

Local studies in Indonesia have explored the integration of character education into religious education but have not fully investigated the specific link between environmental care and Islamic teachings in the context of primary education. Research by (Marshall, 2025) highlighted the importance of incorporating environmental issues into religious curricula, but they did not explore the experiential learning aspect as this study did.

Furthermore, (Rekan & Mokhtar, 2025) have pointed out that while Islamic education provides a solid foundation for teaching environmental care, its practical application in schools has often been underdeveloped.

Moreover, the findings align with experiential learning theory (Pole & McGee, 2025), which suggests that students learn most effectively through *concrete experiences* and active engagement. Research has empirically supported this theory in environmental education contexts; for instance, an experiential learning-based beach cleanup curriculum implemented through Kolb's four-stage cycle was shown to significantly enhance participants' understanding of environmental issues and foster pro-environmental behavior (Hung dkk., 2023). Similarly, sustainability education emphasizing experiential engagement has been found to increase nature connectedness, biodiversity knowledge, and self-reported pro-environmental behaviors (Douglas & et al., 2024). Moreover, outdoor workshops grounded in experiential learning strategies demonstrated improvements in students' ecosystem awareness and value-based environmental understanding (Michalik-Śnieżek, 2025).

The results highlight the potential of the Learn with Nature (LWN) approach to strengthen student engagement in both Islamic Religious Education and environmental education. Through hands-on outdoor activities such as nature observation, gardening, waste sorting, and tree planting, students became more actively involved in learning and demonstrated stronger environmental awareness. These findings suggest that nature-based learning can support not only cognitive understanding but also students' emotional connection, empathy, and sense of responsibility toward nature. From a policy perspective, integrating environmental education into religious subjects is relevant to the Indonesian curriculum context and supports the achievement of SDG 4 on quality education and SDG 13 on climate action.

This study contributes to the literature by demonstrating how Islamic teachings on environmental stewardship can be combined with experiential learning to foster pro-environmental behavior among primary school students. Its novelty lies in positioning Islamic Religious Education as a meaningful medium for developing ecological character through culturally and religiously relevant learning experiences. However, this study is limited by its small sample size, single-school context, short-term observation, and absence of a control group. Future research should examine the long-term impact of the LWN

approach, involve broader and more diverse school settings, compare schools with and without LWN implementation, and explore its adaptation for higher educational levels.

CONCLUSION

This study concludes that the integration of environmental care values into Islamic Religious Education through the Learn with Nature approach was effectively implemented and successfully addressed the research objectives. First, the study found that the Learn with Nature approach can be integrated into Islamic Religious Education by connecting nature-based activities, such as waste sorting, gardening, and tree planting, with Islamic teachings on stewardship (khalifah). Second, this integrated approach positively influenced students' environmental attitudes and behaviors, as reflected in their increased participation in environmental conservation activities and their growing sense of responsibility toward nature. Third, the study demonstrated that Islamic teachings on environmental stewardship can be translated into practical learning experiences, allowing students to understand environmental care not only as a social responsibility but also as a religious and moral obligation.

This study contributes to the field of Islamic education by offering an empirical and pedagogical framework for integrating environmental care values with experiential learning in primary education. It shows that Islamic Religious Education can serve as a meaningful medium for fostering ecological awareness and pro-environmental behavior among young learners through direct interaction with nature. Based on these findings, it is recommended that teachers and schools incorporate more structured nature-based activities into Islamic Religious Education, while curriculum developers design learning materials that explicitly link Islamic values with contemporary environmental issues. Future research is recommended to examine the long-term impact of this approach, involve broader educational contexts, and explore its application across different educational levels and socio-religious settings.

BIBLIOGRAPHY

Akhmad, K. (2022). *Strategi Pembelajaran Dalam Konsep Al-Zarnuji* | *An Naba*.
<https://ejournal.darulfattah.ac.id/index.php/Annaba/article/view/118>



- Al Khansa, E., Pahrudin, A., Jatmiko, A., Sufian, M., & Azad, I. (2024). The Integrated Learning Model in Islamic Religious Education in Junior High School. *Southeast Asian Journal of Islamic Education*, 7(2), 69–85. <https://doi.org/https://doi.org/10.21093/sajie.v7i2.9356>
- Aladejare, S. A. (2023). The human well-being and environmental degradation nexus in Africa. *Environmental Science and Pollution Research*, 30(5), 12098–12113. <https://doi.org/10.1007/s11356-022-22911-2>
- Alhamuddin, & Ikin Asikin. (2025). The Role of the Islamic Religious Education Curriculum in Character Development: A Study of Challenges and Educational Impact in Indonesia. *TARLIM: JURNAL PENDIDIKAN AGAMA ISLAM*, 8(2 SE-Articles), 159–170. <https://doi.org/10.32528/tarlim.v8i2.3325>
- Ali, Dr. M., & Agushi, Dr. M. (2024). Eco-Islam: Integrating Islamic Ethics into Environmental Policy for Sustainable Living. *International Journal of Religion*, 5(9), 949–957. <https://doi.org/10.61707/gq0we205>
- Asikin, I. (2025). The Role of the Islamic Religious Education Curriculum in Character Development: A Study of Challenges and Educational Impact in Indonesia. *Tarlim: Jurnal Pendidikan Agama Islam*, 8(2), 159–170. <https://doi.org/https://doi.org/10.32528/tarlim.v8i2.3325>
- Begum, Abida, Wang, Qiu, Qayum, Hina, Khan, Salim, & Zaib, Khan. (2025). Fostering Green Behaviour Through Environmental Education: A Structural Equation Model of Nature Connectedness and Social Dominance Orientation. *Sage Open*, 15(3), 21582440251378188. <https://doi.org/10.1177/21582440251378188>
- Bolton, A. (1997). Moral Development: Whose ethics in the teaching of religious education? *Journal of Moral Education*, 26(2), 197–210. <https://doi.org/10.1080/0305724970260207>
- Bowen, G. A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, 9(2), 27–40. <https://doi.org/10.3316/QRJ0902027>
- Casmana, A. R., Dewantara, J. A., Timoera, D. A., Kusmawati, A. P., & Syafrudin, I. (2023). Global citizenship: Preparing the younger generation to possess pro-environment behavior, mutual assistance and tolerance awareness through school engagement. *Globalisation, Societies and Education*, 21(1), 15–32. <https://doi.org/10.1080/14767724.2021.2013167>
- Collado, S., Rosa, C. D., & Corraliza, J. A. (2020). The Effect of a Nature-Based Environmental Education Program on Children’s Environmental Attitudes and Behaviors: A Randomized Experiment with Primary Schools. Dalam *Sustainability* (Vol. 12, Nomor 17, hlm. 6817). <https://doi.org/10.3390/su12176817>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (4th ed.). Sage.
- Douglas, F., Beasy, K., Sollis, K., & Flies, E. J. (2024). Online, Experiential Sustainability Education Can Improve Students’ Self-Reported Environmental Attitudes, Behaviours and Wellbeing. Dalam *Sustainability* (Vol. 16, Nomor 6, hlm. 2258). <https://doi.org/10.3390/su16062258>
- Douglas, F., & et al. (2024). Online, Experiential Sustainability Education Can Improve Biodiversity Knowledge, Connection to Nature, and Pro-Environmental Behaviors. *Sustainability*, 16(6), 2258. <https://doi.org/https://doi.org/10.3390/su16062258>
- Eroğlu, S., & Bektaş, O. (2022). The effect of 5E-based STEM education on academic achievement, scientific creativity, and views on the nature of science. *Learning and Individual Differences*, 98, 102181. <https://doi.org/https://doi.org/10.1016/j.lindif.2022.102181>
- Erwiningsih, W. (2023). Analyzing Drivers and Mitigation of Deforestation for Oil Palm Expansion in Indonesia, 2000-2020. *International Journal of Sustainable Development and Planning*, 18(11), 3657–3664. <https://doi.org/10.18280/ijstdp.181132>



- Fasyiransyah, Warsah, I., & Istan, M. (2025). Islamic Religious Education Learning Approach Based on Religious Moderation. *Al-Hayat: Journal of Islamic Education*, 9(1), 181–199. <https://doi.org/10.35723/ajie.v9i1.45>
- Flick, U. (2018). *An Introduction to Qualitative Research* (6th ed.). SAGE Publications.
- Henderson, K., & Loreau, M. (2023). A model of Sustainable Development Goals: Challenges and opportunities in promoting human well-being and environmental sustainability. *Ecological Modelling*, 475, 110164. <https://doi.org/https://doi.org/10.1016/j.ecolmodel.2022.110164>
- Hsu, C.-H. (2025). Outdoor environmental education as a nature-based solution for “education” and “environment”: A new conceptual framework and its pilot application in a coastal community case study in Taiwan. *Journal of Coastal Conservation*, 29(1), 13. <https://doi.org/10.1007/s11852-025-01099-w>
- Hung, L.-Y., Wang, S.-M., & Yeh, T.-K. (2023). Kolb’s experiential learning theory and marine debris education: Effects of different stages on learning. *Marine Pollution Bulletin*, 191, 114933. <https://doi.org/https://doi.org/10.1016/j.marpolbul.2023.114933>
- Khoirurrijal, M. F., Ala, A., & Huda, H. (2025). Integrating religious and environmental education in Indonesian eco-pesantren: Does student religiosity enhance environmental awareness? *Environmental Education Research*, 1–26. <https://doi.org/10.1080/13504622.2025.2600602>
- Liu, J., Yuan, L., Li, M., Li, S.-J., Sun, Y., & Yuan, J. (2024). Ecological experiential learning and tourists’ pro-environmental behavior intentions: The mediating roles of awe and nature connection. *Heliyon*, 10(1), e23410. <https://doi.org/https://doi.org/10.1016/j.heliyon.2023.e23410>
- Marshall, H. (2025). Integrating sustainability into religious education. *Journal of Beliefs & Values*, 1–20. <https://doi.org/10.1080/13617672.2025.2504983>
- Masturin. (2025). Religious Education in Agricultural Environments: Integrating Islamic Teachings and Agricultural Practices for Holistic Student Development. *Religious Education*, 120(1), 58–75. <https://doi.org/10.1080/00344087.2024.2426318>
- Metcalfé, J., Kristjánsson, K., & Peterson, A. (2024). Exploring religious education teachers’ perspectives on character development and moral virtues, in state-funded, non-faith schools in England. *Journal of Beliefs & Values*, 45(4), 518–535. <https://doi.org/10.1080/13617672.2023.2186644>
- Michalik-Śnieżek, M. (2025). Evidence from Outdoor Workshops in Poland: Sustainability and Outdoor Experiential Learning. *Sustainability*, 17(23), 10439. <https://doi.org/https://doi.org/10.3390/su172310439>
- Okada, A., & Gray, P. (2023). A Climate Change and Sustainability Education Movement: Networks, Open Schooling, and the ‘CARE-KNOW-DO’ Framework. Dalam *Sustainability* (Vol. 15, Nomor 3, hlm. 2356). <https://doi.org/10.3390/su15032356>
- Otto, S., & Pensini, P. (2017). Nature-based environmental education of children: Environmental knowledge and connectedness to nature, together, are related to ecological behaviour. *Global Environmental Change*, 47, 88–94. <https://doi.org/https://doi.org/10.1016/j.gloenvcha.2017.09.009>
- Parker, L. (2017). Religious environmental education? The new school curriculum in Indonesia. *Environmental Education Research*, 23(9), 1249–1272. <https://doi.org/10.1080/13504622.2016.1150425>
- Phillippi, Julia, & Lauderdale, Jana. (2018). A Guide to Field Notes for Qualitative Research: Context and Conversation. *Qualitative Health Research*, 28(3), 381–388. <https://doi.org/10.1177/1049732317697102>
- Pole, K., & McGee, M. (2025). *Experiential Learning BT - Teaching and Learning in Higher Education* (S. Wang, Z. Zhou, & S. Marginson, Ed.; hlm. 51–63). Springer Nature Singapore. https://doi.org/10.1007/978-981-95-2415-0_4



- Rahman, R. A., White, B., & Ma, C. (2024). The effect of growth, deforestation, forest fires, and volcanoes on Indonesian regional air quality. *Journal of Cleaner Production*, 457, 142311. <https://doi.org/https://doi.org/10.1016/j.jclepro.2024.142311>
- Rekan, Abd. A., & Mokhtar, M. I. (2025). The Development of Eco-Tahfiz In Malaysia: Bridging Islamic Education and Environmental Sustainability. *Uhumuna*, 29(1), 1–31. <https://doi.org/10.20414/ujis.v29i1.1431>
- Salgado, D., Bernal, A., Dabdoub, J. P., Berkowitz, M. W., & Bier, M. C. (2025). Character Education Formation Program as an Epiphany and Transformational Experience for Educational Principals in México. *Research in Human Development*, 22(1), 23–55. <https://doi.org/10.1080/15427609.2025.2524298>
- Sellmann, D., & Bogner, F. X. (2013). Effects of a 1-day environmental education intervention on environmental attitudes and connectedness with nature. *European Journal of Psychology of Education*, 28(3), 1077–1086. <https://doi.org/10.1007/s10212-012-0155-0>
- Taneja, M., Kiran, R., & Bose, S. C. (2024). Assessing entrepreneurial intentions through experiential learning, entrepreneurial self-efficacy, and entrepreneurial attitude. *Studies in Higher Education*, 49(1), 98–118. <https://doi.org/10.1080/03075079.2023.2223219>
- Valdés, R., & Mendoza, M. (2025). The Potential of Field Notes in Educational Research. *Educação & Realidade*, 50. <https://doi.org/10.1590/2175-6236148792vs02>
- Waluyo, S. D., Rustanto, A. E., Winanti, Y. K., Onn, C. W., Sufian, M., & Mesina, J. R. (2025). Digital Transformation in Teacher Performance Assessment: Development and Implementation of E-PKG System for Enhancing Vocational Education Quality and Industry Alignment. *Journal of Educational Technology and Learning Creativity*, 3(2), 348–366. <https://doi.org/10.37251/jetlc.v3i2.2490>

