



## Eco-Theological Pedagogy for Sustainable Character Formation in Islamic Elementary Education

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**Received:** 2026-05-08; **Revised:** 2026-05-12; **Accepted:** 2026-06-26; **Published:** 2026-06-28

**How to cite:** Zahro, F. A., Mukni'ah, M., Nawangsari, D., & Rizal, S. (2026). Eco-Theological Pedagogy for Sustainable Character Formation in Islamic Elementary Education. *Al-Adzka: Jurnal Ilmiah Pendidikan Guru Madrasah Ibtidaiyah*, 16(1), 118–131.  
<https://doi.org/10.18592/aladzkapgmi.v16i1.20626>

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**Abstract:** Environmental degradation has intensified the need for Islamic elementary education to foster students' sustainable character through spiritually grounded environmental learning. However, the integration of Islamic eco-theological values into classroom pedagogy, school culture, and daily ecological habituation remains underexplored. This study examines the implementation of eco-theological pedagogy at SD Darus Sholah Jember, Indonesia. Using a qualitative case study design, data were collected through observations, semi-structured interviews, and document analysis involving 22 participants, including the principal, teachers, students, parents, and an environmental program coordinator. The data were analysed through data condensation, data display, and conclusion drawing. The findings reveal that eco-theological pedagogy operates through five interconnected dimensions: Islamic eco-theological values, reflective Islamic learning, teacher exemplarity, ecological habituation, and collaborative school culture. These dimensions transform environmental education from a rule-based cleanliness program into a spiritually meaningful and habit-forming process. Students developed eco-spiritual consciousness, environmental responsibility, discipline, cooperation, and emerging ecological habits through Qur'anic reflection, water-saving practices, waste sorting, plant care, and parent-school collaboration. Nevertheless, inconsistent environmental behavior outside school, limited facilities, and uneven family-community support remain key challenges. This study contributes to Islamic sustainability education by proposing eco-theological pedagogy as an integrative framework for linking faith, ecological ethics, pedagogical practice, and sustainable character formation in Islamic elementary schools.

**Keywords:** Eco-Theological Pedagogy, Islamic Elementary Education, Sustainable Character, Environmental Ethics, Islamic Education, Sustainability Education

**Abstrak:** Degradasi lingkungan semakin menegaskan pentingnya pendidikan dasar Islam dalam membentuk karakter berkelanjutan siswa melalui pembelajaran lingkungan yang berlandaskan nilai spiritual. Namun, integrasi nilai-nilai ekoteologis Islam ke dalam pedagogi kelas, budaya sekolah, dan habituasi ekologis harian masih belum banyak dikaji. Penelitian ini bertujuan untuk mengkaji implementasi pedagogi ekoteologis di SD Darus Sholah Jember, Indonesia. Dengan menggunakan desain studi kasus kualitatif, data dikumpulkan melalui observasi, wawancara semi-terstruktur, dan analisis dokumen yang melibatkan 22 partisipan, terdiri atas kepala sekolah,

*guru, siswa, orang tua, dan koordinator program lingkungan. Data dianalisis melalui kondensasi data, penyajian data, dan penarikan kesimpulan. Temuan menunjukkan bahwa pedagogi ekoteologis beroperasi melalui lima dimensi yang saling terhubung, yaitu nilai-nilai ekoteologis Islam, pembelajaran Islam reflektif, keteladanan guru, habituasi ekologis, dan budaya sekolah kolaboratif. Kelima dimensi tersebut mentransformasi pendidikan lingkungan dari program kebersihan berbasis aturan menjadi proses pembentukan karakter yang bermakna secara spiritual dan berbasis kebiasaan. Siswa mengembangkan kesadaran ekospiritual, tanggung jawab lingkungan, disiplin, kerja sama, dan kebiasaan ekologis awal melalui refleksi Al-Qur'an, praktik hemat air, pemilahan sampah, perawatan tanaman, dan kolaborasi sekolah-orang tua. Meskipun demikian, inkonsistensi perilaku lingkungan siswa di luar sekolah, keterbatasan fasilitas, dan dukungan keluarga-komunitas yang belum merata masih menjadi tantangan utama. Penelitian ini berkontribusi pada pendidikan keberlanjutan Islam dengan menawarkan pedagogi ekoteologis sebagai kerangka integratif untuk menghubungkan iman, etika ekologis, praktik pedagogis, dan pembentukan karakter berkelanjutan di sekolah dasar Islam.*

**Kata kunci:** *pedagogi ekoteologis; pendidikan dasar Islam; karakter berkelanjutan; etika lingkungan; habituasi ekologis; pendidikan keberlanjutan.*

## **Introduction**

The ecological crisis has become one of the most critical challenges of contemporary education. Climate change, waste accumulation, pollution, biodiversity loss, and environmental degradation indicate that ecological problems are not only technical or scientific issues but also ethical, cultural, and behavioral ones. In this context, education is expected to play a transformative role in shaping students' environmental awareness, moral responsibility, and sustainable behavior from an early age. Environmental education should not merely transfer knowledge about nature, but should also cultivate values, habits, and commitments that enable students to live responsibly within ecological systems (Amiri et al., 2026; Khofi, 2024). Recent evidence shows that environmental education can support students' environmental knowledge, attitudes, intentions, and behavior when it is designed as a meaningful and action-oriented learning process (Khofi, 2024; Piscová et al., 2023; Van De Wetering et al., 2022).

In Indonesia, environmental degradation remains a serious problem closely linked to everyday human behavior. Floods, unmanaged waste, plastic pollution, and declining environmental awareness among young learners show that ecological responsibility has not been fully internalized in everyday life. Although schools have introduced various environmental programs, many of these practices still tend to emphasize cleanliness routines and cognitive understanding rather than deeper moral and spiritual internalization. As a result, students may understand the importance of protecting the environment, but this knowledge does not always translate into consistent ecological behavior, especially outside structured school activities. Effective environmental education, therefore, requires pedagogical strategies that connect knowledge with personal relevance, reflective engagement, and concrete action (Monroe et al., 2019; Shobirin et al., 2026). This condition highlights the need for a pedagogical approach that integrates environmental learning with character formation, religious values, and daily habituation.

Islamic education has strong potential to respond to this challenge through eco-theological pedagogy. In Islamic thought, nature is not viewed merely as a resource to be used, but as part of God's creation that must be protected with responsibility, balance, and compassion. The concepts of *khalifah fil ardh*, *amanah*, *mizan*, *ihsan*,

and *thaharah* provide an ethical foundation for developing environmental responsibility as part of religious devotion. From this perspective, caring for the environment is not only a social obligation but also a manifestation of faith and moral accountability before God. Recent studies on Islamic environmental ethics also emphasize that Islamic values can strengthen environmental responsibility through moderation in consumption, stewardship, conservation, and ethical treatment of nature (Bsoul et al., 2022; Mafaza et al., 2025; Zabidi et al., 2021). Eco-theological pedagogy, therefore, offers an integrative framework that links Islamic spirituality, ecological ethics, and sustainability-oriented character education.

At the elementary school level, this approach becomes particularly important because childhood is a formative period for developing values, attitudes, and habits. Islamic elementary education should not be limited to ritual, doctrinal, or textual instruction, but should also guide students to practice Islamic values in real social and ecological contexts. Through learning activities, teacher exemplarity, school culture, and environmental habituation, students can be encouraged to develop sustainable character reflected in cleanliness, waste reduction, water conservation, plant care, and responsible consumption. In primary school education, sustainability competences are developed not only through knowledge acquisition but also through values thinking, collaboration, participation, and action-oriented learning (Vesterinen & Ratinen, 2024). Teachers also play a central role in translating Education for Sustainable Development into daily classroom practices and school routines (Timm & Barth, 2021). Such practices align with the principles of Education for Sustainable Development, which emphasizes integrating environmental awareness, ethical responsibility, social participation, and sustainable action within educational systems (Ferdinan et al., 2026; Latuapo & Farid, 2024).

Preliminary observations at SD Darus Sholah Jember show that the school has attempted to integrate Islamic values with environmental programs through collective cleaning activities, classroom greening, religious reminders, and environmental campaigns. Students are encouraged to maintain cleanliness, reduce plastic use, care for plants, and participate in school-based ecological activities. However, several challenges remain. Some students still improperly dispose of waste, use single-use plastics, and exhibit inconsistent environmental behavior outside supervised school programs. Teachers also reported that students' ecological awareness tends to weaken when they are outside the school environment. These conditions indicate that environmental programs require stronger pedagogical integration so that ecological responsibility becomes part of students' sustainable character rather than temporary compliance.

Previous studies have examined the relationship between Islamic education, eco-theology, and environmental awareness. Some studies show that eco-theological values can strengthen students' ecological literacy and environmental responsibility through curriculum integration, experiential learning, teacher exemplarity, and school culture (Rohman et al., 2024; Taufikin & YUSDANI, 2025). Other studies emphasize the importance of *tawhid*-based green learning, Qur'anic environmental education, and Islamic ecological ethics in shaping students' moral and spiritual awareness toward nature (Karman et al., 2023; Masturin et al., 2022). In addition, studies on Islamic environmental education in Indonesia show that environmental values have been integrated into Islamic religious curricula and learning materials, although their implementation still requires stronger pedagogical transformation in daily educational practice (Wakhidah & Erman, 2022; Zabidi et al., 2021). Research on green Islamic schools and eco-Islamic education has also highlighted the relevance

of Islamic values for supporting sustainability education in formal and non-formal educational settings (Juliani et al., 2024; Khotimah et al., 2024).

Despite these contributions, existing studies still leave several gaps. Many previous works remain conceptual, curriculum-oriented, or focused on pesantren, secondary education, and higher education contexts. Limited empirical research has examined how eco-theological pedagogy is practiced integratively in Islamic elementary schools through classroom learning, teacher modeling, ecological habituation, school culture, and parental involvement. Moreover, previous studies have not sufficiently explained how Islamic eco-theological values are transformed into sustainable character among elementary students through daily educational practices. Therefore, further investigation is needed to understand how eco-theological pedagogy operates as a holistic framework for building sustainable character in Islamic elementary education.

This study seeks to fill this gap by investigating the implementation of eco-theological pedagogy at SD Darus Sholah Jember. The novelty of this study lies in its integrative analysis of Islamic eco-theological values, reflective learning, teacher exemplarity, ecological habituation, and collaborative school culture as interconnected dimensions of sustainable character formation. Unlike previous studies that discuss eco-theology, curriculum, or environmental programs separately, this research examines how these dimensions interact in the real-world context of Islamic elementary education. Theoretically, this study contributes to the development of Islamic sustainability education by extending eco-theological discourse into practical pedagogical implementation. In practical terms, it offers insights for Islamic schools, teachers, and curriculum developers on designing spiritually grounded, pedagogically meaningful, and character-oriented environmental education.

Based on this background, this study aims to analyze the implementation of eco-theological pedagogy in Islamic elementary education at SD Darus Sholah Jember. Specifically, this research examines how teachers integrate eco-theological values into learning activities and school culture, how these practices contribute to students' sustainable character development, and what challenges are encountered in implementing eco-theological pedagogy within the school context.

## **Method**

This study employed a qualitative case study design to examine the implementation of eco-theological pedagogy in Islamic elementary education at SD Darus Sholah Jember. A qualitative approach was selected because this study aimed to explore the meanings, experiences, values, and educational practices related to integrating Islamic eco-theological values into school life and students' sustainable character formation. Qualitative research is appropriate for understanding social and educational phenomena in context through participants' perspectives and natural interactions within their environments, rather than through statistical measurement alone (Aspers & Corte, 2019).

The research was conducted at SD Darus Sholah Jember, East Java, Indonesia. The school was purposively selected because it has developed environmental programs that integrate Islamic values, including collective cleaning activities, classroom greening, waste management, religious habituation, and sustainability-oriented character education. These characteristics made the school relevant for examining how eco-theological pedagogy is practiced in Islamic elementary education through classroom learning, environmental habituation, teacher exemplarity, and school culture.

Participants were selected through purposive sampling based on their direct involvement in implementing eco-theological pedagogy and environmental character education. The participants consisted of the principal, Islamic Religious Education teachers, classroom teachers, the environmental program coordinator, students, and parents. The distribution of participants is presented in Table 1.

**Table 1. Research Participants**

<b>Participant Category</b>	<b>Number</b>	<b>Main Information Explored</b>
Principal	1	School policy, institutional vision, and environmental programs
Islamic Religious Education teachers	2	Integration of Islamic eco-theological values into learning
Classroom teachers	3	Daily habituation, classroom culture, and student behavior
Environmental program coordinator	1	Green school activities, waste management, and sustainability programs
Students	10	Learning experiences, ecological awareness, and environmental behavior
Parents	5	Continuity of students' environmental behavior at home
Total	22	—

Data were collected through observation, semi-structured interviews, and document analysis. These techniques were used to obtain comprehensive and triangulated data regarding the implementation of eco-theological pedagogy in the school context. An observation was conducted to examine classroom learning activities, teacher modeling, students' environmental behavior, school routines, religious habituation, and environmental programs. The researcher used non-participant observation, recording field notes on learning interactions, ecological practices, and students' responses during school activities.

Semi-structured interviews were conducted to obtain deeper information from participants. Interviews with the principal focused on school policies, program orientation, and institutional support for eco-theological pedagogy. Interviews with teachers explored strategies for integrating Qur'anic values, Islamic ethics, and environmental practices into learning and habituation. Interviews with students focused on their understanding, experiences, and behavioral changes related to environmental responsibility. Interviews with parents were conducted to examine the Continuity of students' ecological behavior at home. Observation, interviews, and document analysis are relevant techniques in qualitative research because they enable researchers to collect rich data from participants' experiences, direct practices, and institutional documents (Chand, 2025).

Document analysis was used to support and verify data obtained from observations and interviews. The analysed documents included lesson plans, Islamic Religious Education materials, school vision and mission statements, environmental program documents, students' activity reports, school regulations, and photographs of environmental activities. These documents provided additional evidence regarding how eco-theological values were formally and practically represented within the school system.

Data analysis followed the interactive model of Miles, Huberman, and Saldaña, consisting of data condensation, data display, and conclusion drawing or verification (Miles et al., 2014). In the data condensation stage, interview transcripts, observation notes, and documents were selected, coded, simplified, and grouped according to relevant categories, such as Islamic eco-theological values, reflective learning, teacher exemplarity, ecological habituation, school culture, parental involvement, and implementation challenges. In the data display stage, the data were organized into

thematic descriptions and analytical matrices to identify patterns and relationships among categories. In the conclusion-drawing and verification stage, the researcher interpreted the findings by comparing data from different sources and verifying the consistency of the evidence.

To ensure trustworthiness, this study applied source triangulation, method triangulation, time triangulation, and member checking. Source triangulation was conducted by comparing information from the principal, teachers, students, parents, and school documents. Method triangulation was carried out by comparing data from interviews, observations, and document analysis. Time triangulation was conducted through repeated observations and interviews at different times to examine the consistency of participants' responses and behavior. Member checking was conducted by confirming interview summaries and preliminary interpretations with selected participants to minimize researcher bias and strengthen credibility.

Ethical considerations were maintained throughout the research process. Before data collection, permission was obtained from the school authority, and participants were informed about the purpose of the study, the voluntary nature of their participation, and the confidentiality of their responses. Participants' identities were anonymized using participant codes, and all data were presented solely for academic purposes. These procedures were applied to protect participants' privacy, dignity, and rights during the research process.

## **Results**

The findings of this study reveal that eco-theological pedagogy at SD Darus Sholah Jember is implemented as an integrated process involving Islamic eco-theological values, reflective learning, teacher exemplarity, ecological habituation, and collaborative school culture. The data obtained from observations, interviews, and document analysis were organized into four main themes: eco-theological orientation in school culture; integration of Islamic values in learning; teacher exemplarity and ecological habituation; and challenges in sustaining students' environmental behavior.

### **1. Eco-Theological Orientation in School Environmental Culture**

The first finding shows that SD Darus Sholah Jember has developed an environmental culture grounded in Islamic character education. Environmental awareness was not positioned merely as a cleanliness program, but as part of students' moral and religious formation. This orientation was visible in the school environment through classroom gardens, separated waste bins, water-saving posters, and Islamic environmental slogans such as "Cleanliness is Part of Faith" and "Protecting Nature is a Religious Responsibility." These elements indicate that the school attempted to connect ecological responsibility with Islamic values in students' daily experiences.

Observation data showed that environmental practices were embedded in school routines. Students participated in *Jumat Bersih*, maintained classroom cleanliness, watered plants, and were encouraged to separate organic and inorganic waste. These activities were not implemented as occasional events, but as repeated practices intended to build environmental responsibility. The principal explained:

*"We want students not only to understand religion theoretically, but also to practice Islamic values through caring for the environment because protecting nature is part of worship and responsibility as khalifah fil ardh" (P1).*

This statement indicates that the school's environmental orientation is rooted in an eco-theological understanding of Islamic education. Students were encouraged to see environmental care not only as a school rule, but also as a form of worship and responsibility as God's stewards on earth.



**Figure 1. Plant Maintenance Activities**

## **2. Integration of Islamic Eco-Theological Values in Learning**

The second finding indicates that teachers integrated Islamic eco-theological values into classroom learning, particularly through Qur'anic reflection, fiqh, and contextual environmental discussions. Islamic Religious Education teachers connected environmental issues with Qur'anic teachings, including the prohibition against destroying the earth. QS. Al-A'raf: 56 was used to discuss waste pollution, water conservation, and excessive plastic use. Through this strategy, students were invited to interpret ecological problems through Islamic moral perspectives.

During classroom observations, teachers used reflective questions and visual comparisons between clean and polluted environments. Students were asked to identify which environment reflected Islamic values and why Muslims should protect nature. This activity encouraged students to connect religious knowledge with concrete environmental practices. One student stated:

*"If we keep the environment clean, Allah will love us because Islam teaches us to protect nature and avoid causing damage" (S3).*

This finding suggests that Islamic environmental learning contributed to the development of eco-spiritual awareness. Students not only understood environmental care cognitively, but also began to associate ecological responsibility with faith, obedience, and moral accountability before God.

Eco-theological values were also integrated into fiqh learning, especially in the topic of *thaharah*. Students were taught that water should not be wasted during ablution because Islam emphasizes moderation and prohibits excessive use of resources. An observation at the school mosque showed that several students reminded their peers to turn off the water taps after performing ablution. This practice illustrates how religious routines can serve as a medium for internalizing sustainability values.

## **3. Teacher Exemplarity and Ecological Habituation**

The third finding shows that teacher exemplarity played a central role in shaping students' sustainable character. Teachers not only instructed students to care for the environment but also modeled environmentally responsible behavior. Several teachers were observed bringing reusable drinking bottles, reducing plastic packaging, participating in cleaning activities, and reminding students to keep

classrooms and school areas clean. One teacher emphasized the importance of consistency between instruction and practice:

*"Students imitate what they see more easily than what they hear. If teachers ask students to protect the environment but do not practice it themselves, the message will lose its meaning" (T2).*

This finding indicates that teacher modeling became a practical mechanism for transferring ecological values into students' behavior. Students were more likely to adopt sustainable habits when they saw teachers practicing the same values in daily school life.

Ecological habituation was also strengthened through repeated routines, such as checking classroom cleanliness before lessons, sorting waste, watering plants, reducing plastic use, and participating in *Jumat Bersih*. These routines helped students develop discipline, cooperation, responsibility, and environmental care. Through repeated practice, ecological values gradually became part of the school culture rather than temporary activities.

#### **4. School Programs, Parental Support, and Sustainability Challenges**

The fourth finding reveals that school programs and parent-school collaboration supported sustainable character formation, although several challenges remained. The school implemented programs such as the Green Classroom Program, waste separation, composting, classroom greening, and campaigns to reduce single-use plastics. Each class was responsible for maintaining plants and cleanliness around its classroom area. Organic waste from the canteen was processed into compost, while recyclable waste was collected for environmental projects.

The school also encouraged students to bring reusable food containers and drinking bottles. Although some students still used plastic packaging, teachers reported that students' awareness of plastic reduction gradually improved. Parents also reported that some students began reminding family members not to litter and to save water at home. This indicates that eco-theological pedagogy had begun to influence students' behavior beyond the school environment, although the Continuity of these habits still varied.

The main challenge was the inconsistency of students' environmental behavior outside school. Teachers reported that students tended to follow environmental rules when supervised at school, but these habits were not always maintained at home or in public spaces. One teacher stated:

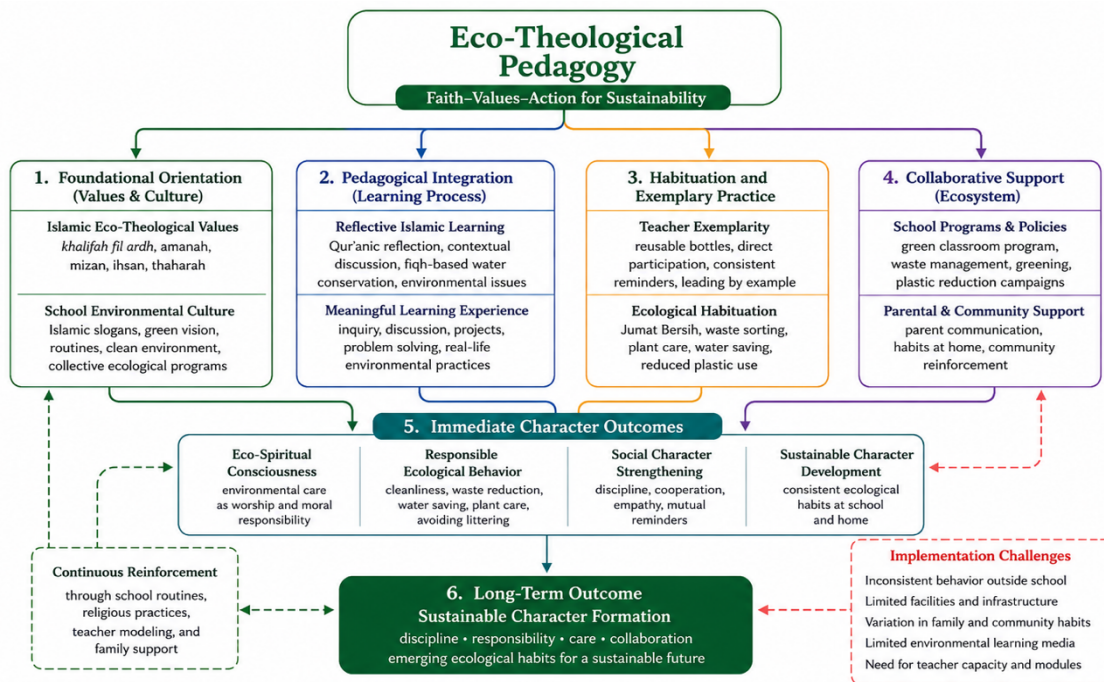
*"At school students can follow environmental rules because there is supervision, but outside school their behavior often depends on family and community habits" (T4).*

This finding shows that sustainable character formation cannot rely only on school-based programs. It requires broader reinforcement from families, communities, and the surrounding social environment. Another challenge was the limited availability of facilities, such as green spaces, environmental learning media, and waste management infrastructure. These limitations indicate the need for stronger institutional support, teacher training, and more systematic eco-theological learning resources.

**Table 2. Summary of Research Findings**

Theme	Main Finding	Empirical Evidence	Character Outcome
Eco-theological orientation in school culture	Environmental care was framed as part of Islamic character education	Islamic environmental slogans, gardens, waste bins, <i>Jumat Bersih</i> , school environmental routines	Religious awareness and ecological responsibility
Integration of Islamic values in learning	Qur’anic values, fiqh, and prophetic ethics were connected to environmental issues	QS. Al-A’raf: 56, reflective classroom discussion, water-saving during ablution	Eco-spiritual consciousness
Teacher exemplarity	Teachers modeled environmentally responsible behavior	Reusable bottles, direct participation in cleaning activities, consistent reminders	Imitative sustainable behavior
Ecological habituation	Environmental routines were repeated in daily school life	Classroom cleaning, waste sorting, plant care, Green Classroom Program	Discipline, cooperation, and responsibility
Parent-school collaboration	Students’ ecological habits began to extend to the home context	Parent reports about children reminding family members to save water and avoid littering	Continuity of ecological behavior
Implementation challenges	Students’ environmental behavior remained inconsistent outside school	Teacher interviews and field observations	Need for family, community, and institutional support

Based on these findings, eco-theological pedagogy at SD Darus Sholah Jember can be conceptualized as a sequential process beginning with Islamic eco-theological orientation, followed by pedagogical integration, ecological habituation, collaborative support, and sustainable character formation. This process is presented in Figure 2.



**Figure 2. Research Findings Framework of Eco-Theological Pedagogy for Sustainable Character Formation**

## Discussion

The central finding of this study is that eco-theological pedagogy transforms environmental education from a rule-based school program into a spiritually meaningful and habit-forming character education process. At SD Darus Sholah Jember, ecological responsibility was not merely taught as environmental knowledge. However, it was internalized through Islamic theological values, reflective learning, teacher exemplarity, ecological habituation, and a collaborative school culture. This finding is important because recent research in environmental education shows that students' ecological outcomes are strengthened when learning goes beyond information transfer and supports knowledge, attitudes, intentions, and behavior through meaningful educational experiences (van de Wetering et al., 2022). In the Islamic education context, this transformation becomes stronger because environmental care is framed not only as ecological awareness but also as moral responsibility before God.

The integration of Islamic eco-theological values provides the moral and spiritual foundation for this pedagogical transformation. Concepts such as *khalifah fil ardh*, *amanah*, *mizan*, *ihsan*, and *thaharah* position environmental care as part of worship, stewardship, balance, and ethical responsibility toward creation. This finding strengthens Islamic environmental ethics, which emphasizes that sustainability is embedded in Islamic teachings through moderation, responsibility, conservation, and protection of nature (Bsoul et al., 2022; Haq et al., 2025). It also supports the argument that eco-theology in Islamic education can serve as a transformative framework for linking faith, morality, and ecological responsibility in students' daily behavior (Mafaza et al., 2025; Wakhidah & Erman, 2022). Thus, eco-theological pedagogy does not simply insert environmental topics into Islamic education; it reorients Islamic learning toward ecological responsibility as an integral dimension of religious character formation.

This study further shows that eco-theological pedagogy becomes effective when theological values are translated into reflective and contextual learning experiences. Teachers connected Qur'anic messages with practical environmental issues, such as cleanliness, plastic waste, water conservation, ablution practices, waste sorting, and plant care. This process enabled students to interpret environmental behavior through religious meaning and daily practice. Such a finding extends previous studies showing that Islamic Religious Education already contains environmental values but still requires stronger pedagogical transformation so that these values do not remain merely normative or textual (Wakhidah & Erman, 2022; Zabidi et al., 2021). In this study, Qur'anic reflection and contextual discussion functioned as a bridge between Islamic environmental ethics and concrete ecological action.

Another important interpretation is the emergence of eco-spiritual consciousness among students. Students began to understand environmental care not only as a school obligation, but as religious obedience, moral accountability, and a form of devotion to God. This is significant because sustainable character formation is strengthened when ecological behavior is connected to spiritual meaning. Saving water during ablution, keeping the classroom clean, reducing plastic waste, and caring for plants were no longer perceived only as school discipline but as practices that reflect Islamic values. This finding strengthens previous arguments that eco-theological integration in Islamic education can develop students' spiritual, social, and cognitive character when environmental practices are embedded in religious learning and school culture (Noor & Anwar, 2025; Sapitri et al., 2025).

Teacher exemplarity is the key mechanism linking ecological values to students' behavior. Teachers who brought reusable bottles, participated in cleaning activities,

avoided excessive plastic use, and consistently reminded students about environmental responsibility provided visible models for students to imitate. In Islamic elementary education, this finding is particularly important because teachers are not only instructional agents but also moral exemplars. The effectiveness of eco-theological pedagogy, therefore, depends on the consistency between what teachers teach and what they practice. This finding is consistent with the view that Education for Sustainable Development in elementary schools requires teachers who can translate sustainability values into daily pedagogical practices, routines, and school culture (Timm & Barth, 2021). It also confirms that eco-pedagogical transformation in Islamic institutions needs exemplary behavior, value-based habituation, and consistent leadership (Prakoso, 2025).

Ecological habituation further explains how sustainable character is gradually formed. Activities such as *Jumat Bersih*, classroom cleaning, waste sorting, plant care, water-saving practices, and reusable-bottle campaigns provided repeated opportunities for students to practice environmental responsibility. Through repetition, ecological values became embedded in students' discipline, cooperation, care, and sense of responsibility. This finding is important because sustainability competences in primary education are formed not only through knowledge acquisition but also through value thinking, collaboration, participation, and action-oriented learning (Vesterinen & Ratinen, 2024). Therefore, habituation becomes the practical mechanism that transforms eco-theological understanding into sustainable character.

School culture also plays a central role in sustaining eco-theological pedagogy. Environmental slogans, classroom gardens, school regulations, collective cleaning programs, religious reminders, and parent-school communication created an educational ecosystem that reinforced students' ecological behavior. This finding shows that sustainable character formation cannot rely on isolated classroom instruction. It requires an institutional culture in which ecological values are consistently communicated through visual environments, teacher behavior, peer interaction, religious activities, and family support. This supports previous research showing that eco-Islamic education becomes more sustainable when environmental values are embedded in educational governance, school culture, and collective institutional practices (Amiri et al., 2026; Ferdinan et al., 2026; Khotimah et al., 2024; Prakoso, 2025).

However, the findings also reveal that the internalization of sustainable character remains fragile when school-based ecological values are not supported by family and community environments. Some students showed responsible ecological behavior at school, but their habits were not always maintained outside the school context. This indicates that eco-theological pedagogy requires broader ecological socialization beyond formal education. Family habits, community practices, and public environmental culture can either strengthen or weaken the character developed at school. This challenge confirms that environmental awareness in Islamic elementary education requires long-term habituation, systematic reinforcement, and stronger collaboration between school, family, and community (Shobirin et al., 2026).

Institutional limitations also need to be addressed. Limited availability of green spaces, environmental learning media, waste management facilities, and structured eco-theological teaching modules may limit the expansion of sustainability-oriented programs. Although teachers demonstrated creativity in integrating Islamic values and ecological practices, relying solely on individual initiative can make the program difficult to sustain. This finding implies that eco-theological pedagogy should be supported by institutional policies, teacher training, learning modules, and

assessment instruments that can evaluate students' sustainable character development. Integrative learning models that connect Islamic ethics with practical ecological behavior, such as water and energy conservation, can strengthen the sustainability of this approach (Rohmatulloh et al., 2023).

The theoretical contribution of this study lies in its explanation of eco-theological pedagogy as a sequential and integrative framework for Islamic elementary education. Previous studies have often discussed Islamic eco-theology, environmental curriculum, school culture, or sustainability education separately. This study demonstrates how these dimensions operate together through a clear pedagogical mechanism: Islamic eco-theological values provide the moral foundation; reflective learning and teacher exemplarity translate values into educational practice; ecological habituation and collaborative school culture reinforce daily behavior; and these processes gradually form eco-spiritual consciousness and sustainable character. Thus, the novelty of this study lies not merely in the discussion of Islamic environmental values, but in explaining how these values operate pedagogically in the everyday life of an Islamic elementary school.

In practice, the findings suggest that Islamic elementary schools can serve as strategic spaces for fostering environmentally responsible generations when sustainability education is embedded in religious learning, daily routines, teacher modeling, and parent-school collaboration. Eco-theological pedagogy offers a contextual and faith-based pathway for integrating Islamic education with Education for Sustainable Development. This approach is relevant to contemporary sustainability agendas because it shapes students who are not only religiously committed but also ecologically aware, morally responsible, and capable of practicing sustainable behavior from an early age. Therefore, eco-theological pedagogy can serve as a meaningful model for strengthening sustainable character formation in Islamic elementary education.

### **Conclusion**

This study concludes that eco-theological pedagogy at SD Darus Sholah Jember functions as an integrative approach for strengthening students' sustainable character in Islamic elementary education. The findings show that sustainable character formation is developed through five interconnected elements: Islamic eco-theological values, reflective Islamic learning, teacher exemplarity, ecological habituation, and collaborative school culture. Through the integration of concepts such as *khalifah fil ardh*, *amanah*, *mizan*, *ihsan*, and *thaharah*, environmental responsibility is understood not only as a school rule or social obligation but also as a form of worship and moral accountability before God. This process encourages students to develop eco-spiritual consciousness, environmental responsibility, discipline, cooperation, and daily ecological habits.

The study further demonstrates that eco-theological pedagogy is most effective when Islamic values are translated into concrete educational practices, such as Qur'anic reflection, water-saving during ablution, *Jumat Bersih*, waste sorting, plant care, reusable-bottle campaigns, and parent-school collaboration. However, the implementation still faces challenges, particularly students' inconsistent environmental behavior outside school and limited supporting facilities. Therefore, Islamic elementary schools need to strengthen eco-theological pedagogy through continuous habituation, teacher modeling, family involvement, and institutional support. This approach offers a meaningful framework for integrating Islamic education with sustainability-oriented character formation in response to contemporary ecological challenges.

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