

## **Implementation of The Eco Habituation Program As An Effort To Foster Students' Environmental Awareness**

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### **Abstract**

This study aims to describe the implementation of the Eco Habituation program as an effort to foster students' environmental awareness at Eco Muhammadiyah Boarding School (Eco MBS) Malang. This research employed a qualitative method with a case study approach. Data were collected through in-depth interviews and analyzed using the Miles and Huberman model. The results show that the Eco Habituation program is independently implemented through environmental habituation, integration of the program with dormitory and *pesantren* systems, and disciplinary guidance. The findings provide valuable insights for Islamic educational institutions in Indonesia with boarding systems to strengthen ecological character education. The novelty of this research lies in the integration of ecological and religious values within a sustainable habituation-based education system, enriching the literature on environmental management in Islamic schools.

**Keyword:** Eco Habituation, Character, Environmental Awareness, Students.

### **Introduction**

Environmental issues are increasingly severe and have become a crucial problem faced by Indonesia. The causes stem

from both natural events and human activities.<sup>1</sup> Kamila Insani revealed that environmental degradation is primarily caused by human actions that disregard their impact on ecosystems, leading to water pollution, air pollution, deforestation, and climate change.<sup>2</sup> This situation demands systematic efforts to build early awareness in order to shape a generation that cares about the environment, particularly through education.<sup>3</sup>

Law No. 32 of 2009 concerning Environmental Protection and Management, Article 65 Paragraph 2, states that every individual has the right to environmental education, access to information, opportunities for participation, and access to justice to ensure the fulfillment of the right to a good and healthy environment.<sup>4</sup> Environmental education is essentially a part of character education aimed at shaping

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<sup>1</sup> Dislkh Badung, “Kerusakan Lingkungan Hidup Di Indonesia Dan Penyebabnya,” Dinas Lingkungan Hidup dan Kebersihan Kabupaten Badung, 2019, <https://dislkh.badungkab.go.id/artikel/18289-kerusakan-lingkungan-hidup-di-indonesia-dan-penyebabnya>.

<sup>2</sup> Kamila Insani, “Peran United Nation Environment Programme (UNEP) Sebagai Lembaga Lingkungan Hidup Internasional Dalam Pengelolaan Lingkungan Hidup,” *Unes Law Review* 6, no. 2 (2023): 6075–84, <https://review-unes.com/index.php/law/article/download/1444/1168/>.

<sup>3</sup> Anisa Noverita, Eka Darliana, and Trysanti Kisria Darsih, “Pendidikan Lingkungan Hidup Untuk Meningkatkan Ecoliteracy Siswa,” *Jurnal Sintaksis: Pendidikan Guru Sekolah Dasar, IPA, IPS Dan Bahasa Inggris* 4, no. 1 (2022): 51–60, <https://jurnal.stkipalmaksum.ac.id/index.php/Sintaksis/article/view/248>.

<sup>4</sup> Republik Indonesia, “Undang-Undang Republik Indonesia Nomor 32 Tahun 2009 Tentang Perlindungan Dan Pengelolaan Lingkungan Hidup,” Pub. L. No. 32 (2009), <https://peraturan.bpk.go.id/Download/28100/UU-Nomor-32-Tahun-2009.pdf>.

students to have awareness and responsibility toward their surroundings.<sup>5</sup>

Naziyah et al., stated that the character education of environmental awareness can be implemented in schools through routine activities, spontaneous actions, role modeling, conditioning, and school culture.<sup>6</sup> This approach is closely related to B.F. Skinner's Behaviorism theory, particularly the concept of operant conditioning, which emphasizes behavior repetition followed by specific consequences in the form of reinforcement or punishment.<sup>7</sup> Based on this theory, the researcher adopts Skinner's concept as a theoretical foundation to understand how environmental habituation is applied in shaping students' environmental awareness through structured and repetitive conditioning.

The implementation of environmental habituation at Eco Muhammadiyah Boarding School (Eco MBS) is carried out through the Eco Habituation program, which serves as a strategic step in fostering students' environmental character. Based on interviews with the program coordinator, the Eco Habituation program involves the habituation of clean, healthy, and environmentally friendly behavior through routine

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<sup>5</sup> Ahmad Zamhari et al., "Lingkungan Pendidikan Dalam Pendidikan Karakter," *JMI (Jurnal Multidisiplin Indonesia)* 2, no. 6 (2023): 1103–8, <https://doi.org/https://doi.org/10.58344/jmi.v2i6.261>.

<sup>6</sup> Sifaun Naziyah et al., "Implementasi Pendidikan Karakter Peduli Lingkungan Di Sekolah Dasar," *Jurnal Basicedu* 5, no. 5 (2021): 3482–89, <https://doi.org/10.31004/basicedu.v5i5.1344>.

<sup>7</sup> Yunita et al., "Application of B.F. Skinner'S Behaviorism Learning Theory in Islamic Education Learning for High School Students," *Jurnal Ilmiah Didaktika* 25, no. 1 (2024): 27, <https://doi.org/10.22373/jid.v25i1.24233>.

activities such as maintaining cleanliness, promoting health, sorting and managing waste, and conserving energy. Through these activities, students are accustomed to being responsible for the environment from an early age.

Based on the description above, this study aims to describe the implementation process of environmentally friendly behavior habituation applied at Eco MBS and its impact on the formation of students' ecological attitudes and behaviors.

## **Research Method**

This study employed a qualitative approach with a case study method, aiming to explore in depth the implementation of the Eco Habituation program as an effort to develop students' environmental awareness at Eco MBS. The case study approach was chosen because it allows the researcher to understand the contextual dynamics of environmental habituation phenomena within the real-life setting of an Islamic educational institution.

The research was conducted at Eco Muhammadiyah Boarding School (Eco MBS) Malang. This institution independently develops an environmental education program as a continuation of the ecological education initiative at MTs Muhammadiyah 1 Malang, which has been implemented since 2017.

Informants were selected using purposive sampling, involving three key participants: the head of the school, the program coordinator, and students. Data were collected through in-depth interviews. All interview sessions were recorded and

transcribed to ensure data accuracy. Data analysis was carried out interactively following Miles and Huberman's model, which includes data condensation, data display, and conclusion drawing. The validity of the data was ensured through source triangulation using member checks and peer discussions to verify the accuracy of interpretations and the reliability of the research findings.

### **Literatur review**

Schools, as formal educational institutions, play a strategic role in instilling environmental awareness values through learning activities, school culture, and daily habits.<sup>8</sup> Various previous studies have shown that the educational environment and daily lifestyle habits have a significant influence on the formation of students' character.

Research by Zamhari et al., explains that the educational environment is a complex system that plays an essential role in shaping students' character. Teachers serve as moral role models in forming a generation with strong character and social-environmental awareness. This study emphasizes that a conducive educational environment is a key factor in the success of character education, including the development of environmental awareness.<sup>9</sup>

A study conducted by Gumsi and Hendriani focused on developing environmental awareness through school

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<sup>8</sup> Noverita, Darliana, and Darsih, "Pendidikan Lingkungan Hidup Untuk Meningkatkan Ecoliteracy Siswa."

<sup>9</sup> Zamhari et al., "Lingkungan Pendidikan Dalam Pendidikan Karakter."

management strategies at SMPN 13 Sijunjung. The results show that environmental awareness is formed through daily habits supported by school policies, teacher training, socialization, recycling facilities, and regular evaluations. The study highlights the importance of institutional support and systematic planning in creating an environmentally conscious school culture.<sup>10</sup>

Meanwhile Uda et al., found that the implementation of a full-day school program emphasizing environmental awareness was effective because it engaged students in various habituation activities such as classroom duties, *Jum'at bersih*, hydroponic gardening, and reducing plastic waste. These programs utilize daily routines as a means of character development. The results indicate that students' active involvement in real-life environmental activities fosters greater responsibility for cleanliness and environmental preservation within the school.<sup>11</sup>

Handayani et al., also demonstrated that the *Adiwiyata* program based on ecopedagogy significantly influences the formation of environmental awareness among elementary school students. The program encourages students to develop habits of maintaining cleanliness, recycling waste, and creating a green and pleasant school environment. This research affirms

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<sup>10</sup> Putri Eka Gumsi and Suswati Hendriani, "Manajemen Strategis Pengelolaan Sampah Di Sekolah: Studi Tentang Pembentukan Karakter Peduli Lingkungan SMPN 13 Sijunjung," *Indo-Fintech Intellectuals: Journal of Economics and Business* 4, no. 3 (2024): 1072–83, <https://doi.org/10.54373/ifijeb.v4i3.1481>.

<sup>11</sup> T. Uda, E. Karliani, and Sakman Dotrimensi, "Full Day School Program in Forming Environmental Care Character of Junior High School Students," *Empowering Civil Society in the Industrial Revolution 4.0*, 2021, 71–75, <https://doi.org/10.1201/9781003180128-14>.

that the ecopedagogical approach integrating ecological values into learning is effective in nurturing students' environmental awareness.<sup>12</sup>

Research by Zalfa et al., supports this perspective. Through a qualitative study at SMA Negeri 111 Jakarta, it was found that strengthening environmental character was achieved through teacher role modeling, cleanliness routines, the provision of supportive facilities, and school activities such as *Jum'at Bersih* and waste banks. The findings indicate that exemplary behavior and adequate facilities play a crucial role in fostering an environmentally conscious school culture.<sup>13</sup>

Similarly Lia Dwi Tresnani emphasized the importance of habituation as a key method in cultivating environmental awareness. Her research at SMPN 6 Pekalongan showed that activities such as classroom cleaning duties, waste separation, and *Jum'at Bersih* were conducted routinely to instill positive habits. Character formation in this context heavily depends on teacher role modeling and collaboration between the school and parents.<sup>14</sup>

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<sup>12</sup> Trisni Handayani, Zulela MS, and Chrisnaji Banindra Yudha, "Pendidikan Karakter Peduli Lingkungan Melalui Program Adiwiyata Berbasis Ekopedagogik," *EduHumaniora | Jurnal Pendidikan Dasar Kampus Cibiru* 13, no. 1 (2021): 36–42, <https://doi.org/10.17509/eh.v13i1.25735>.

<sup>13</sup> Anastya Zalfa, Alya Shobihah, and Abdul Fadhil, "Peranan Lingkungan Sekolah Terhadap Penguatan Karakter Peduli Lingkungan Siswa SMAN 111 Jakarta.," *Jurnal Pendidikan Sosiologi Dan Humaniora* 13, no. 2 (2022): 835–41, <https://doi.org/10.26418/j-psh.v13i2.54803>.

<sup>14</sup> Lia Dwi Tresnani, "Penanaman Karakter Peduli Lingkungan Melalui Kegiatan Pembiasaan Di SMP Negeri 6 Pekalongan," *AL-HIKMAH: Jurnal Pendidikan Dan Pendidikan Agama Islam* 2, no. 1 (2020): 108–17, <https://doi.org/https://doi.org/10.36378/al-hikmah.v2i1.431>.

Furthermore research by Sulistyanto et al., highlighted simple yet effective practices in environmental character education through waste management habituation at MI Muhammadiyah Cekel. Activities such as sorting waste, bringing personal eating utensils, and reducing plastic use were proven to cultivate environmentally friendly behavior. The study underscores that behavioral change can be achieved through repeated practice and daily habituation.<sup>15</sup>

The study by Astadika et al. integrates the values of *tauhid* (the oneness of God) and environmental awareness into the *Projek Penguatan Profil Pelajar Pancasila* (P5) at SMK Diponegoro. Through activities such as organic waste management, reforestation, and the study of Qur'anic verses concerning human responsibility toward nature, *tauhid* serves as the spiritual foundation for fostering ecological consciousness. The findings indicate that the integration of spiritual and ecological values is effective in shaping students' character to be both religious and environmentally conscious.<sup>16</sup>

These various studies emphasize the importance of habituation and the school environment in shaping environmental awareness. However, most still position habituation as part of general school programs such as

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<sup>15</sup> Hernawan Sulistyanto et al., "Pembiasaan Pengelolaan Sampah Sebagai Strategi Pendidikan Karakter Peduli Lingkungan Bagi Siswa MI Muhammadiyah Cekel, Karanganyar," *Buletin KKN Pendidikan* 1, no. 2 (2019): 42–49, <https://doi.org/10.23917/bkkndik.v1i2.10768>.

<sup>16</sup> Erik Astadika, Duwi Habsari Mutamimah, and M. Fahmi Maulana, "Integrasi Nilai Tauhid Dan Peduli Lingkungan Dalam Pembelajaran P5 Di SMK," *Tarbawi Ngabar: Jurnal of Education* 6, no. 2 (2025): 169–87, <https://doi.org/10.55380/tarbawi.v6i2.1116>.

*Adiwiyata* or routine cleanliness activities. In this study, the researcher seeks to examine an independent, boarding school-based program developed at Eco Muhammadiyah Boarding School (Eco MBS). Through B.F. Skinner's Behaviorism theory, particularly the concept of operant conditioning, the study aims to explore how environmental character is formed through structured and repetitive behavioral conditioning.

### Research Findings

The research findings were obtained through in-depth interviews with the school principal, the program coordinator, and students, revealing a distinctive pattern in the implementation of the Eco Habituation program within the MBS environment. The program is not merely carried out as a routine activity but has become an integral part of the *pesantren* system and the character development process of the students. The detailed research findings are presented in the following table:

Table 1. Research findings on the implementation of the eco habituation program as an effort to foster students' environmental awareness.

Research Findings	Category
The Eco Habituation program is independently implemented by the madrasah through environmental habituation activities that involve all students. The main activities include managing organic and inorganic waste, producing compost from dried teak leaves, and maintaining daily environmental cleanliness. Habituation is carried out through a structured duty schedule in each dormitory room and classroom. In addition, the program is integrated with healthy lifestyle practices, such as consuming herbal drinks and simple nutritious meals.	Implementation of the Eco Habituation Program as an Independent Initiative

<p>The Eco Habituation program is integrated into the boarding and pesantren system. Environmental awareness values are incorporated into the school regulations, learning activities, and pesantren programs. A special study session called “<i>Fikih Lingkungan</i>” is held every Friday night to strengthen religious values related to human responsibility toward nature. External activities, such as visits to <i>Balai Latihan Kerja (BLK)</i> and hands-on practices in catfish farming and hydroponics, are also part of the contextual learning integration.</p>	<p>Integration of the Program with the Boarding and Pesantren System</p>
<p>Disciplinary development within the Eco Habituation program at Eco MBS is carried out through structured habituation, intensive supervision, and educational approaches that emphasize students’ awareness and responsibility. Supervision is routinely conducted by teachers or <i>musyrifah</i> (female dormitory mentors) who live in the boarding environment to ensure that cleanliness, room tidiness, duty schedules, and waste management are consistently maintained every day. The approach used is not oriented toward physical punishment or rigid moral judgment but rather focuses on counseling and explaining the consequences of each violation. Students also experience significant behavioral changes, particularly in maintaining cleanliness and discipline, as positive habits are formed through daily routines and a clear understanding of the real consequences of undisciplined behavior.</p>	<p>Disciplinary Guidance</p>

## **Implementation of the Eco Habituation Program as an Independent Initiative**

The head of the madrasah explained that the implementation of the Eco Habituation program at MBS is an internal initiative designed to instill environmental awareness habits, particularly among students. He stated:

“This program is purely our own movement, not because of government targets, and we don’t want to be burdened by

administrative requirements like those in the *Adiwiyata* program. The goal of this program is to help students get used to caring for the environment through small actions, such as throwing trash in the proper place, sweeping the yard, and making compost from teak leaves. For health, every night the students are required to drink herbal concoctions made from turmeric, ginger, lemongrass, and lemon it has become a habit. Their meals are also kept simple but nutritionally balanced. Alhamdulillah, the students have been healthy so far, with no significant illnesses.”

The program coordinator reinforced this statement by adding that every student has a regular responsibility to maintain environmental cleanliness. He said:

“Each dormitory room has a daily duty schedule. In the morning before class, they must clean their rooms, bathrooms, and terraces. On Saturdays, we usually hold life skill activities, such as planting water spinach or spinach, or making flower pots from used plastic bottles.”

Meanwhile, one of the students shared his personal experience:

“For cleaning the yard, we usually do community service on Sundays, and in the dorm rooms, there’s a duty schedule. The room duties are divided some sweep in the morning, some in the evening, and some mop. The front terrace, drying area, and bathroom also have assigned people. So everyone gets a turn, including those in charge of taking out the trash. In the classroom, there are five people on duty sweeping, watering the plants, and folding the carpets. The trash is taken directly outside, so there’s no trash bin inside the classroom.”

### **Integration of the Program with the Boarding and *Pesantren* System**

The program coordinator explained that environmental awareness values are not merely an additional program but

have been fully integrated into the boarding and pesantren system. He stated:

“We connect Eco Habituation with the boarding system. There is a *Fikih Lingkungan* session every Friday night so that students understand that caring for nature is also part of worship.”

He further added that all students are required to participate in this activity, and that outdoor learning is also designed to strengthen environmental skills. He explained:

“Activities like visiting the *Balai Latihan Kerja (BLK)* are also part of the eco program. They learn about catfish farming and hydroponics, so it’s not just theory in the classroom.”

The students confirmed this integration in their daily activities:

“*Fikih Lingkungan* is held every Friday night. We were also once taken to the *BLK* in Sawojajar to observe catfish farming using the biofloc system.”

## **Disciplinary Guidance**

Disciplinary development within the Eco Habituation program at MBS is implemented through structured habituation and an educational approach integrated into students’ daily lives. This process takes place systematically through daily routines, close supervision, and the application of constructive consequences. The program coordinator stated:

“Supervision is carried out every day because there are teachers who stay in the dorms and accompany the students 24 hours a day. So, we evaluate daily for example, about their cleaning duties: Did the students water the plants in the afternoon? Did they complete their morning cleaning duties properly? We check everything room tidiness, how items are arranged, waste management and we monitor it every day.”

The principal added further explanation regarding the educational approach used in the disciplinary process. He explained:

“The parenting pattern we apply is not based on a punishment or sin–reward system. What I mean is, we don’t simply say, ‘this is wrong, this is right, and if you’re wrong, you get punished.’ Our focus is not only on physical discipline but also on mental development. So far, we’ve used a counseling approach more often explaining the consequences that must be faced rather than immediately giving punishment.”

A student also expressed that this approach helped them become more disciplined and accustomed to maintaining cleanliness:

“We’ve become more disciplined and better at taking care of the environment. When it comes to cleanliness, it really makes a difference. Honestly, before, when I bought snacks, I was too lazy to throw the trash away I’d just leave it in the corner of my room. But here, that’s impossible, because even a little trash will attract ants right away. So, we automatically get used to keeping things clean.”

## **Discussion / Analysis**

### **Implementation of the Eco Habituation Program as an Independent Initiative**

The Eco Habituation program is independently implemented by the madrasah through environmental habituation activities that involve all students. The main activities include managing organic and inorganic waste, producing compost from dry teak leaves, and maintaining daily environmental cleanliness. These habituation practices are carried out through structured cleaning schedules in every dormitory room and classroom.

In addition, the program is integrated with the habituation of a healthy lifestyle through the consumption of herbal drinks and simple nutritious meals. This indicates that the Eco Habituation program not only focuses on cleanliness and physical environmental preservation but also on the formation of a holistic healthy lifestyle. Consequently, environmentally conscious behavior naturally develops through direct experience and repeated daily activities.

Based on B.F. Skinner's theory of operant behavior, which emphasizes that behavior is formed through conditioning and reinforcement of desired actions,<sup>17</sup> students' initial engagement in the Eco Habituation program occurs as a result of rules or instructions from teachers. However, over time, through routine, positive reinforcement, and environmental conditioning, these behaviors evolve into intrinsic habits performed voluntarily.<sup>18</sup>

This process also aligns with Thomas Lickona's theory of character development, which involves internalizing values through moral knowing, moral feeling, and moral action.<sup>19</sup> In

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<sup>17</sup> Yunita et al., "Application of B.F. Skinner's Behaviorism Learning Theory in Islamic Education Learning for High School Students."

<sup>18</sup> Ridha Fitriani J. Ode Bau et al., "Pengaruh Program Habitiasi Terhadap Penguatan Karakter Siswa SDN No. 67 Kota Timur Kota Gorontalo," *Semantik : Jurnal Riset Ilmu Pendidikan, Bahasa Dan Budaya* 3, no. 2 (May 17, 2025): 264–77, <https://doi.org/10.61132/semantik.v3i2.1701>.

<sup>19</sup> Syamsul Kurniawan and Feny Nida Fitriyani, "Thomas Lickona's Idea on Character Education Which Builds Multicultural Awareness: Its Relevance for School/Madrasah in Indonesia," *Al-Tadzkiyyah: Jurnal Pendidikan Islam* 14, no. 1 (2023): 33–53, <https://doi.org/https://doi.org/10.24042/atjpi.v14i1.15820>.

this program, students are first provided with knowledge about the importance of environmental care. Through direct experience and emotional involvement in cleanliness activities, they develop a sense of environmental concern. The next stage is the consistent application of these values in daily actions, leading to the comprehensive internalization of environmentally caring character.

These findings are consistent with the research of Lia Dwi Tresnani which states that habituation activities such as class cleaning duties, waste separation, and “*Jum’at Bersih*” programs effectively cultivate environmental awareness, particularly when supported by teachers and the entire school community.<sup>20</sup> Similarly Sulistyanto et al., emphasized the importance of waste management and the habit of bringing personal eating utensils as part of environmental character education.<sup>21</sup>

Hariandi et al., also found that consistent habituation, role modeling, and school culture at SDN 55 Sridadi successfully fostered students’ environmental sensitivity.<sup>22</sup> Furthermore Fortuna et al., discovered that integrating the *Adiwiyata* program through environmental based activities and whole school collaboration effectively nurtured environmentally

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<sup>20</sup> Lia Dwi Tresnani, “Penanaman Karakter Peduli Lingkungan Melalui Kegiatan Pembiasaan Di SMP Negeri 6 Pekalongan.”

<sup>21</sup> Sulistyanto et al., “Pembiasaan Pengelolaan Sampah Sebagai Strategi Pendidikan Karakter Peduli Lingkungan Bagi Siswa MI Muhammadiyah Cekel, Karanganyar.”

<sup>22</sup> Ahmad Hariandi et al., “Implementasi Pendidikan Karakter Peduli Lingkungan Di Sekolah Dasar,” *JlIP - Jurnal Ilmiah Ilmu Pendidikan* 6, no. 12 (2023): 10155–61, <https://doi.org/10.54371/jiip.v6i12.3328>.

conscious character. Overall, well-planned and continuous habituation practices play a crucial role in shaping students' environmental awareness and responsibility.<sup>23</sup>

### **Integration of the Program with the Dormitory and Islamic Boarding System**

The Eco Habituation program is integrated into the boarding and *pesantren* (Islamic boarding school) system. Environmental awareness values are embedded in the dormitory regulations, learning activities, and daily *pesantren* programs. The “*Fikih Lingkungan*” study is conducted every Friday night. Through this approach, the cultivation of environmental awareness is not one-directional or limited to incidental activities but becomes an integral part of the students' 24 hour daily life within the *pesantren* environment. In addition, contextual activities such as visits to the *Balai Latihan Kerja (BLK)*, catfish cultivation practice, and hydroponic farming provide hands-on experiences and broaden students' ecological perspectives. Thus, they not only understand environmental concepts theoretically but are also able to apply them in real-life contexts.

This integrative approach can be explained through Bronfenbrenner's Ecological Systems Theory (1979) as cited in Tong and An which emphasizes that individual development is profoundly influenced by interactions among various

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<sup>23</sup> Dewi Fortuna, Muhammad Fauzan Muttaqin, and Pebrisa Amrina, “Integrasi Karakter Peduli Lingkungan Dalam Program Sekolah Adiwiyata Di SDN Cipondoh 5,” *Jurnal Elementaria Edukasia* 6, no. 4 (2023): 2088–2100, <https://doi.org/10.31949/jee.v6i4.7557>.

environmental systems, ranging from the microsystem (family, school, pesantren) and mesosystem to the macrosystem (cultural and religious values).<sup>24</sup> In the context of MBS, the *pesantren* and dormitory systems function as a strong microsystem that shapes students' behavior and character through continuous supervision, habituation, and role modeling.

Environmental awareness is not merely taught but internalized through direct experiences and social interactions within the daily life of the *santri* (students).<sup>25</sup> This theory aligns with Kohlberg's Theory of Moral Internalization (1981) as cited in Zhang and Zhao which explains that moral values become part of one's personality when experienced concretely and consistently within a social environment.<sup>26</sup> Therefore, the integration of environmental values into the boarding system not only shapes temporary behaviors but also fosters deep internalization of ecological character.

Research by Zamhari et al., emphasizes that the educational environment plays a central role in shaping

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<sup>24</sup> Peiru Tong and Irene Shidong An, "Review of Studies Applying Bronfenbrenner's Bioecological Theory in International and Intercultural Education Research," *Frontiers in Psychology* 14 (2024): 1233925, <https://doi.org/10.3389/FPSYG.2023.1233925>.

<sup>25</sup> Muhyidin Muhyidin et al., "Ecoliterasi Santri: Transformasi Kesadaran Lingkungan Di Pesantren Hijau Indonesia," *INCARE, International Journal of Educational Resources* 6, no. 2 (August 31, 2025): 120–34, <https://doi.org/10.59689/incare.v6i2.1224>.

<sup>26</sup> Qian Zhang and Honghui Zhao, "An Analytical Overview of Kohlberg's Theory of Moral Development in College Moral Education in Mainland China," *Open Journal of Social Sciences* 5, no. 8 (August 11, 2017): 151–60, <https://doi.org/10.4236/JSS.2017.58012>.

students' character through role modeling, learning processes, co-curricular activities, and the strengthening of school culture.<sup>27</sup> Similarly Handayani et al., found that the *Adiwiyata* program based on ecopedagogy significantly influences the development of environmental awareness through cleanliness habits and recycling culture. The integration of environmental values into institutional systems and curricula has been proven to strongly impact the internalization of environmentally conscious character.<sup>28</sup> Similarly,

Fitri Nur Rohmah discovered that the integration of ecological values within the pesantren system not only enhances students' environmental awareness but also strengthens their religious identity as *khalifah fil ardh* (stewards of the earth).<sup>29</sup> Meanwhile, Athoilah asserted that the success of eco-Islamic boarding schools depends on curriculum integration, teacher exemplarity, and sustainable environmental activities.<sup>30</sup>

Wahyudi and Dewi (2023) further emphasized that character formation is the core of the 2013 Curriculum and the

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<sup>27</sup> Zamhari et al., "Lingkungan Pendidikan Dalam Pendidikan Karakter."

<sup>28</sup> Handayani, MS, and Yudha, "Pendidikan Karakter Peduli Lingkungan Melalui Program Adiwiyata Berbasis Ekopedagogik."

<sup>29</sup> Fitri Nur Rohmah, "Integration Of Ecological Principles in the Pesantren System: An Analysis Of Sustainability and Environmental Conservation Practices In Islamic Educational," *Molang: Journal Islamic Education* 2, no. 2 (2024), <https://doi.org/10.32806/jm.v2i02.813>.

<sup>30</sup> Ahmad Athoillah et al., "Eco-Islamic Boarding School Indicators For Increasing Environmental Awareness And Sustainable Development In Indonesia," *WACANA, Jurnal Sosial Dan Humaniora* 27, no. 1 (2024): 26–36, <https://doi.org/10.21776/ub.wacana.2024.027.01.04>.

*Merdeka Belajar Kampus Merdeka* (MBKM) framework. Learning is designed to develop cognitive, affective, and psychomotor aspects in an integrated manner while instilling moral and environmental values in students' social lives. This perspective supports the Eco Habituation model as a concrete implementation of character education for environmental awareness, integrated within the boarding school and pesantren system.<sup>31</sup>

### **Discipline Development**

Discipline development within the Eco Habituation Program at Eco MBS is implemented through structured habituation, intensive supervision, and an educational approach that emphasizes the cultivation of awareness and responsibility among students. Supervision is routinely carried out by teachers or *musyrifah* (female dormitory supervisors) who reside within the dormitory environment to ensure the consistent execution of daily cleanliness activities, room tidiness, duty rosters, and waste management.

The approach used is not oriented toward physical punishment or rigid moral judgment but focuses more on counseling and explaining the consequences of each violation. Students also reported significant behavioral changes, particularly in maintaining cleanliness and discipline, as positive habits were formed through daily routines and an

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<sup>31</sup> M. Furqon Wahyudi and Rosy Alfiana Dewi, "Perbandingan Konsep Pembelajaran PAI Berdasarkan Kurikulum KBK, K13 Dan MBKM," *Tarbawi Ngabar: Jurnal of Education* 4, no. 1 (2023): 61–77, <https://doi.org/10.55380/tarbawi.v4i1.318>.

understanding of the real consequences of undisciplined behavior.

According to B.F. Skinner's behaviorism theory, human behavior can be shaped through environmental stimuli and their consequences, both in the form of reinforcement and punishment.<sup>32</sup> In the context of the Eco Habituation Program, routines such as daily cleaning, duty schedules, and tidiness regulations function as consistent stimuli. Meanwhile, positive reinforcement is provided through appreciation, teacher role modeling, and the sense of togetherness that develops within the dormitory environment.

Educational punishment is also applied in the form of logical consequences rather than physical penalties, thereby strengthening disciplined behavior. Furthermore, the habit formation theory by Lally et al., as cited in Fiorella explains that behavior can become habitual when performed repeatedly and consistently over time, so that disciplined behavior, initially shaped through supervision, eventually becomes an internalized personal habit for students.<sup>33</sup>

Research by Jamilah et al., showed that the internalization of environmental ethics at Nurul Iman Islamic Boarding School was successfully achieved through modeling, habituation, educational punishment, and religious text-based instruction. Habituation methods, such as daily duty schedules and community service activities, effectively established

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<sup>32</sup> Yunita et al., "Application of B.F. Skinner's Behaviorism Learning Theory in Islamic Education Learning for High School Students."

<sup>33</sup> Logan Fiorella, "The Science of Habit and Its Implications for Student Learning and Well-Being," *Educational Psychology Review* 32, no. 3 (2020): 603–25, <https://doi.org/10.1007/s10648-020-09525-1>.

routines of environmentally responsible behavior, while teacher role modeling served as a behavioral reference for students.<sup>34</sup>

Similarly Hidayat dan Hidayat revealed that discipline character development at MI Al Ma'had An-Nur was carried out through well-planned programs, consistent implementation, and continuous evaluation within a supportive pesantren environment.<sup>35</sup> Collaboration among the school, family, and community created a comprehensive learning experience through habituation and role modeling, with dormitory supervision serving as a key factor in developing sustainable discipline character.<sup>36</sup>

Meanwhile, research by Abdunnasir dan Amiruddin also found that habituation is an effective process in cultivating discipline and responsibility through routine dormitory activities such as congregational prayers, *dzikir* (remembrance of God), and consistent religious practices.<sup>37</sup> In line with Irfan

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<sup>34</sup> Nur Asiah Jamilah, Muhammad Widodo, and Endi Suhendi, "Addressing Environmental Concerns: Strategies of Islamic Boarding School Teachers in Promoting Environmental Ethics," *International Journal of Nusantara Islam* 11, no. 2 (2023): 246–59, <https://doi.org/10.15575/ijni.v11i2.30892>.

<sup>35</sup> Wahyu Hidayat and Nur Hidayat, "Islamic Boarding School Management: A Comprehensive Analysis of a Special Program for Fostering Students' Disciplinary Character in Madrasah Ibtidaiyah," *HEUTAGOGIA: Journal of Islamic Education* 3, no. 2 (2023): 225–36, <https://doi.org/10.14421/hjie.2023.32-07>.

<sup>36</sup> Mukhlis Fahrudin, "Manajemen Pendidikan Karakter Religius," *Peradaban Journal of Interdisciplinary Educational Research* 3, no. 1 (February 22, 2025): 32–45, <https://doi.org/10.59001/pjier.v3i1.299>.

<sup>37</sup> Abdunnasir Abdunnasir and Amirudin Amirudin, "Efforts to Improve Students Discipline Through Habituation Activities at Minhajut Thalibin Boarding School," *Al-Hayat: Journal of Islamic Education* 6, no. 1 (2022): 1, <https://doi.org/10.35723/ajie.v6i1.187>.

Jauhari's research, Az-Zarnuji's perspective in *Ta'lim al-Muta'allim* emphasizes that character formation must be achieved through habituation, exemplary conduct, and the supervision of manners. Values such as patience, diligence, piety (*wara'*), respect, and responsibility serve as the foundation for students' discipline and self-awareness.<sup>38</sup>

## Conclusion

Based on the research findings, Eco Muhammadiyah Boarding School (Eco MBS) Malang strives to develop students' environmental awareness and character through the Eco Habituation program a process of instilling habits of clean, healthy, and environmentally friendly living that are integrated into the boarding school and pesantren education system. This program includes activities such as waste management, composting, hydroponic cultivation, and the "*Fikih Lingkungan*" study sessions as a means of internalizing the value of responsibility toward nature. Discipline development is carried out through an educational approach involving intensive supervision, role modeling, and positive reinforcement, enabling ecological awareness values to become consistently embedded in the students' daily behavior and lifestyle culture.

The limitation of this study lies in its focus on a single institution; therefore, the findings cannot yet be generalized.

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<sup>38</sup> Irfan Jauhari, "Urgensitas Nilai Pendidikan Karakter Perspektif Ta'limul Muta'allim Dalam Menghadapi Krisis Moral," *Tarbawi Ngabar: Jurnal of Education* 1, no. 01 (2020): 12-47, <https://doi.org/10.55380/tarbawi.v1i01.30>.

Future research is recommended to expand the scope to various boarding schools. This study received non-financial support from the school, which actively participated by providing information and involvement throughout the research process. The first author designed the study, collected, and analyzed the data, while the second and third authors interpreted the findings and reviewed relevant literature.

## References

- Abdunnasir, Abdunnasir, and Amirudin Amirudin. "Efforts to Improve Students Discipline Through Habituation Activities at Minhajut Thalibin Boarding School." *Al-Hayat: Journal of Islamic Education* 6, no. 1 (2022): 1. <https://doi.org/10.35723/ajie.v6i1.187>.
- Astadika, Erik, Duwi Habsari Mutamimah, and M. Fahmi Maulana. "Integrasi Nilai Tauhid Dan Peduli Lingkungan Dalam Pembelajaran P5 Di SMK." *Tarbawi Ngabar: Jurnal of Education* 6, no. 2 (2025): 169–87. <https://doi.org/10.55380/tarbawi.v6i2.1116>.
- Athoillah, Ahmad, Eko Ganis Sukoharsono, Gatot Ciptadi, and Bagyo Yanuwadi. "Eco-Islamic Boarding School Indicators For Increasing Environmental Awareness And Sustainable Development In Indonesia." *WACANA, Jurnal Sosial Dan Humaniora* 27, no. 1 (2024): 26–36. <https://doi.org/10.21776/ub.wacana.2024.027.01.04>.
- Bau, Ridha Fitriani J. Ode, Salma Halidu, Isnanto Isnanto, Gamar Abdullah, and Candra Cuga. "Pengaruh Program Habitiasi Terhadap Penguatan Karakter Siswa SDN No. 67 Kota Timur Kota Gorontalo." *Semantik: Jurnal Riset Ilmu Pendidikan, Bahasa Dan Budaya* 3, no. 2 (May 17, 2025): 264–77. <https://doi.org/10.61132/semantik.v3i2.1701>.

- Dislkh Badung. “Kerusakan Lingkungan Hidup Di Indonesia Dan Penyebabnya.” Dinas Lingkungan Hidup dan Kebersihan Kabupaten Badung, 2019. <https://dislkh.badungkab.go.id/artikel/18289-kerusakan-lingkungan-hidup-di-indonesia-dan-penyebabnya>.
- Fahrudin, Mukhlis. “Manajemen Pendidikan Karakter Religius.” *Peradaban Journal of Interdisciplinary Educational Research* 3, no. 1 (February 22, 2025): 32–45. <https://doi.org/10.59001/pjier.v3i1.299>.
- Fiorella, Logan. “The Science of Habit and Its Implications for Student Learning and Well-Being.” *Educational Psychology Review* 32, no. 3 (2020): 603–25. <https://doi.org/10.1007/s10648-020-09525-1>.
- Fortuna, Dewi, Muhammad Fauzan Muttaqin, and Pebrisa Amrina. “Integrasi Karakter Peduli Lingkungan Dalam Program Sekolah Adiwiyata Di SDN Cipondoh 5.” *Jurnal Elementaria Edukasia* 6, no. 4 (2023): 2088–2100. <https://doi.org/10.31949/jee.v6i4.7557>.
- Gumsi, Putri Eka, and Suswati Hendriani. “Manajemen Strategis Pengelolaan Sampah Di Sekolah: Studi Tentang Pembentukan Karakter Peduli Lingkungan SMPN 13 Sijunjung.” *Indo-Fintech Intellectuals: Journal of Economics and Business* 4, no. 3 (2024): 1072–83. <https://doi.org/10.54373/ifijeb.v4i3.1481>.
- Handayani, Trisni, Zulela MS, and Chrisnaji Banindra Yudha. “Pendidikan Karakter Peduli Lingkungan Melalui Program Adiwiyata Berbasis Ekopedagogik.” *EduHumaniora | Jurnal Pendidikan Dasar Kampus Cibiru* 13, no. 1 (2021): 36–42. <https://doi.org/10.17509/eh.v13i1.25735>.
- Hariandi, Ahmad, Dimas Bindang Darma Putra Dwitama, Nur Anisa Rahman, Rahmat Ramadhani, and Yunsacintra Yunsacintra. “Implementasi Pendidikan Karakter Peduli

- Lingkungan Di Sekolah Dasar.” *JIIP - Jurnal Ilmiah Ilmu Pendidikan* 6, no. 12 (2023): 10155–61. <https://doi.org/10.54371/jiip.v6i12.3328>.
- Hidayat, Wahyu, and Nur Hidayat. “Islamic Boarding School Management: A Comprehensive Analysis of a Special Program for Fostering Students’ Disciplinary Character in Madrasah Ibtidaiyah.” *HEUTAGOGIA: Journal of Islamic Education* 3, no. 2 (2023): 225–36. <https://doi.org/10.14421/hjie.2023.32-07>.
- Irfan Jauhari. “Urgensitas Nilai Pendidikan Karakter Perspektif Ta’limul Muta’allim Dalam Menghadapi Krisis Moral.” *Tarbawi Ngabar: Jurnal of Education* 1, no. 01 (2020): 12–47. <https://doi.org/10.55380/tarbawi.v1i01.30>.
- Jamilah, Nur Asiah, Muhammad Widodo, and Endi Suhendi. “Addressing Environmental Concerns: Strategies of Islamic Boarding School Teachers in Promoting Environmental Ethics.” *International Journal of Nusantara Islam* 11, no. 2 (2023): 246–59. <https://doi.org/10.15575/ijni.v11i2.30892>.
- Kamila Insani. “Peran United Nation Environment Programme (UNEP) Sebagai Lembaga Lingkungan Hidup Internasional Dalam Pengelolaan Lingkungan Hidup.” *Unes Law Review* 6, no. 2 (2023): 6075–84. <https://review-unes.com/index.php/law/article/download/1444/1168/>.
- Kurniawan, Syamsul, and Feny Nida Fitriyani. “Thomas Lickona’s Idea on Character Education Which Builds Multicultural Awareness: Its Relevance for School/Madrasah in Indonesia.” *Al-Tadzkiyyah: Jurnal Pendidikan Islam* 14, no. 1 (2023): 33–53. <https://doi.org/https://doi.org/10.24042/atjpi.v14i1.15820>.
- Lia Dwi Tresnani. “Penanaman Karakter Peduli Lingkungan Melalui Kegiatan Pembiasaan Di SMP Negeri 6

- Pekalongan.” *AL-HIKMAH: Jurnal Pendidikan Dan Pendidikan Agama Islam* 2, no. 1 (2020): 108–17. <https://doi.org/https://doi.org/10.36378/al-hikmah.v2i1.431>.
- Muhyidin, Muhyidin, Sinta Bella, Achmad Mahrus Helmi, and Maria Mufidah. “Ecoliterasi Santri: Transformasi Kesadaran Lingkungan Di Pesantren Hijau Indonesia.” *INCARE, International Journal of Educational Resources* 6, no. 2 (August 31, 2025): 120–34. <https://doi.org/10.59689/incare.v6i2.1224>.
- Naziyah, Sifaun, Akhwani Akhwani, Nafiah Nafiah, and Sri Hartatik. “Implementasi Pendidikan Karakter Peduli Lingkungan Di Sekolah Dasar.” *Jurnal Basicedu* 5, no. 5 (2021): 3482–89. <https://doi.org/10.31004/basicedu.v5i5.1344>.
- Noverita, Anisa, Eka Darliana, and Trysanti Kisria Darsih. “Pendidikan Lingkungan Hidup Untuk Meningkatkan Ecoliteracy Siswa.” *Jurnal Sintaksis: Pendidikan Guru Sekolah Dasar, IPA, IPS Dan Bahasa Inggris* 4, no. 1 (2022): 51–60. <https://jurnal.stkipalmaksum.ac.id/index.php/Sintaksis/article/view/248>.
- Republik Indonesia. Undang-Undang Republik Indonesia Nomor 32 Tahun 2009 Tentang Perlindungan dan Pengelolaan Lingkungan Hidup, Pub. L. No. 32 (2009). [https://peraturan.bpk.go.id/Download/28100/UU Nomor 32 Tahun 2009.pdf](https://peraturan.bpk.go.id/Download/28100/UU%20Nomor%2032%20Tahun%202009.pdf).
- Rohmah, Fitri Nur. “Integration Of Ecological Principles in the Pesantren System: An Analysis Of Sustainability and Environmental Conservation Practices In Islamic Educational.” *Molang: Journal Islamic Education* 2, no. 2 (2024). <https://doi.org/10.32806/jm.v2i02.813>.
- Sulistyanto, Hernawan, Iqna Maulidya Syafira, Amalia Quratul

- Isnaini, Fitroni Hadi Prasetyo, Wafafi Qolby, Esti Pramita, Retno Aruming Tyas, Indhityas Kurnianing Fauziah, Farid Muhammad, and Rifki Khusain. "Pembiasaan Pengelolaan Sampah Sebagai Strategi Pendidikan Karakter Peduli Lingkungan Bagi Siswa MI Muhammadiyah Cekel, Karanganyar." *Buletin KKN Pendidikan* 1, no. 2 (2019): 42–49. <https://doi.org/10.23917/bkkndik.v1i2.10768>.
- Tong, Peiru, and Irene Shidong An. "Review of Studies Applying Bronfenbrenner's Bioecological Theory in International and Intercultural Education Research." *Frontiers in Psychology* 14 (2024): 1233925. <https://doi.org/10.3389/FPSYG.2023.1233925>.
- Uda, T., E. Karliani, and Sakman Dotrimensi. "Full Day School Program in Forming Environmental Care Character of Junior High School Students." *Empowering Civil Society in the Industrial Revolution 4.0*, 2021, 71–75. <https://doi.org/10.1201/9781003180128-14>.
- Wahyudi, M. Furqon, and Rosy Alfiana Dewi. "Perbandingan Konsep Pembelajaran PAI Berdasarkan Kurikulum KBK, K13 Dan MBKM." *Tarbawi Ngabar: Jurnal of Education* 4, no. 1 (2023): 61–77. <https://doi.org/10.55380/tarbawi.v4i1.318>.
- Yunita, Alfitra Firmansyah, Muqowim Muqowim, and Muhammad Alwi Nurdin. "Application of B.F. Skinner'S Behaviorism Learning Theory in Islamic Education Learning for High School Students." *Jurnal Ilmiah Didaktika* 25, no. 1 (2024): 27. <https://doi.org/10.22373/jid.v25i1.24233>.
- Zalfa, Anastya, Alya Shobihah, and Abdul Fadhil. "Peranan Lingkungan Sekolah Terhadap Penguatan Karakter Peduli Lingkungan Siswa SMAN 111 Jakarta." *Jurnal Pendidikan Sosiologi Dan Humaniora* 13, no. 2 (2022): 835–41. <https://doi.org/10.26418/j-psh.v13i2.54803>.

- Zamhari, Ahmad, Natasya Al Ubaidah, Miftahul Janah, Yuniar, and Patma Puspita Sari. “Lingkungan Pendidikan Dalam Pendidikan Karakter.” *JMI (Jurnal Multidisiplin Indonesia)* 2, no. 6 (2023): 1103–8. <https://doi.org/https://doi.org/10.58344/jmi.v2i6.261>.
- Zhang, Qian, and Honghui Zhao. “An Analytical Overview of Kohlberg’s Theory of Moral Development in College Moral Education in Mainland China.” *Open Journal of Social Sciences* 5, no. 8 (August 11, 2017): 151–60. <https://doi.org/10.4236/JSS.2017.58012>.