



# Cultivating Environmental Care Character through *Sekolah Alam* Indonesia: A Literature Review

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## ABSTRACT

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### Keywords:

Character Education;  
Environmental Care;  
Sekolah Alam.

**Abstract:** Environmental awareness among students is still relatively low, necessitating an educational model capable of fostering a sustainable ecological character. *Sekolah Alam* offer an alternative education that integrates the learning process with nature through a contextual approach and direct experience. This study seeks to review and analyses the results of previous research on the role of *Sekolah Alam* in shaping students' environmental character. This study used a systematic literature review method on scientific articles published between 2024-2025 that discussed contextual learning, the integration of religious values, and the application of experiential learning in Indonesian *Sekolah Alam*. The process of searching, selecting, and analyzing articles follows the PRISMA procedure with measurable criteria, analyzed using a thematic analysis approach and concept-centric review to ensure comprehensive and transparent findings. The results of the study indicate that the integration of environmental values into the curriculum, the role of teachers as facilitators, and learning activities based on real experiences contribute significantly to the formation of students' ecological awareness and behaviour. Thus, *Sekolah Alam* can be seen as an effective sustainable education model in fostering environmental character from an early age. *Sekolah Alam's* curriculum, supported by the maximum role of teachers, can be an alternative for other schools to foster environmental character.

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### Kata Kunci:

Pendidikan Karakter;  
Peduli Lingkungan;  
Sekolah Alam.

**Abstrak:** Kesadaran peduli lingkungan di kalangan pelajar masih tergolong rendah, sehingga diperlukan model pendidikan yang mampu menumbuhkan karakter ekologis secara berkelanjutan. *Sekolah Alam* hadir sebagai alternatif pendidikan yang mengintegrasikan proses belajar dengan alam melalui pendekatan kontekstual dan pengalaman langsung. Penelitian ini berupaya meninjau dan menganalisis hasil-hasil penelitian terdahulu tentang peran *Sekolah Alam* dalam membentuk karakter peduli lingkungan peserta didik. Penelitian ini menggunakan metode studi literatur sistematis (*systematic literature review*) terhadap artikel ilmiah terbit pada tahun 2024-2025 yang membahas pembelajaran kontekstual, integrasi nilai keagamaan, dan penerapan *experiential learning* di *Sekolah Alam* Indonesia. Proses penelusuran, seleksi, dan analisis artikel mengikuti prosedur PRISMA dengan kriteria terukur, dianalisis menggunakan pendekatan analisis tematik serta *concept centric review* agar temuan komprehensif dan transparan. Hasil kajian menunjukkan bahwa integrasi nilai peduli lingkungan dalam kurikulum, peran guru sebagai fasilitator, serta kegiatan belajar berbasis pengalaman nyata berkontribusi signifikan terhadap pembentukan kesadaran dan perilaku ekologis peserta didik. Dengan demikian, *Sekolah Alam* dapat dipandang sebagai model pendidikan berkelanjutan yang efektif dalam menumbuhkan karakter peduli lingkungan sejak usia dini. Kurikulum *Sekolah Alam* didukung dengan peran guru yang maksimal dapat menjadi alternatif bagi sekolah-sekolah lain untuk menumbuhkan karakter peduli lingkungan.

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## A. INTRODUCTION

Low environmental awareness among students remains a serious problem at all levels of education. Many students lack the awareness to maintain a clean school environment, conserve energy, or manage waste wisely (Tompodung et al., 2018). This clearly demonstrates that environmental knowledge has not been fully internalized into concrete values and actions. In fact, students' level of knowledge is not always directly related to environmentally conscious behavior if it is not supported by other factors, namely school culture (Cahyani et al., 2025). Education plays a strategic role in instilling environmental values from an early age as the foundation for developing a sustainable ecological character (Azizah & Amalia, 2023; Latifah et al., 2025). An effective strategy is needed to instil an environmentally conscious character in students, especially through education at school.

Various strategies used in school education have not yielded the desired results. While successful environmental education programs have increased student knowledge, they have not consistently changed their behavior and attitudes in the long term (Cahyani et al., 2025). Adiwiyata, a government program aimed at environmental conservation, has successfully increased students' knowledge of environmental education, but faces various obstacles, such as low interest among school residents, unequal distribution of environmental awareness, and program funding (Sunarto, 2023). Teachers' lack of creative skills and preparation for the Adiwiyata program is also a barrier that requires special attention (Kurniasari & Vistrina, 2023). These conditions encourage the need to combine appropriate strategies and reflective efforts to foster an environmentally conscious character in schools.

Sekolah Alam's exist as an alternative to address this problem. This educational model emerged as a critique of the conventional education system, which is considered to overemphasize cognitive aspects while providing insufficient space for character development and ecological awareness (Loka & Listiana, 2022; Wulansari, 2017). The primary philosophy of Sekolah Alam's is learning from nature, with nature, and for nature, where the environment is not merely an object but also a source and medium for learning (Achmad et al., 2024). In practice, learning in Sekolah Alam's emphasizes experiential learning through activities such as gardening, ecosystem observation, or organic waste management (Pujaningtyas et al., 2019). Through this contextual approach, students learn to understand the interconnectedness between humans and nature and develop a sense of responsibility toward the environment.

Sekolah Alam's play a crucial role in fostering environmentally conscious character through learning activities that integrate ecological values into every aspect of learning. Through direct interaction with nature, students not only gain knowledge about the environment but also internalize values such as responsibility, care, and simplicity in interacting with nature (Andres et al., 2025). The open and natural school environment serves as a living laboratory for students to observe, experiment, and reflect on the reciprocal relationship between humans and ecosystems. In this context, Sekolah Alam's serve as a vehicle for developing ecological character oriented toward sustainability, where students learn that preserving nature is part of their moral and social responsibility (Rahayu et al., 2024; Setiani & Putri, 2024). Thus, education in Sekolah Alam's fosters not only intellectual intelligence but also emotional and spiritual intelligence that supports the preservation of the earth.

While various previous studies have discussed the implementation of environmental education in Sekolah Alam's, most have been limited to case studies in specific schools. Comprehensive studies examining how Sekolah Alam's foster environmentally conscious character from various research and theoretical perspectives are rare. In fact, a literature review is crucial for providing a comprehensive picture of the patterns, strategies, and challenges faced in fostering environmental awareness through nature-based education. Therefore, this study seeks to review and analyze previous research on the role of Sekolah Alam's in developing students' environmental awareness.

This study is expected to provide a deeper understanding that can serve as a foundation for developing ecologically-minded education in Indonesia.

## B. METHODS

This study employed a systematic literature review approach to examine various research findings related to environmental character education in Sekolah Alam's published between 2024 and 2025. This method was chosen because it allows researchers to systematically identify, evaluate, and synthesize relevant research findings to gain a comprehensive understanding of the phenomenon under study (Kitchenham & Charters, 2007). Data collection was conducted through a search of scientific articles in several nationally indexed databases, such as Google Scholar, Garuda, and SINTA, using a combination of the keywords "natural school" and "environmental character education." Furthermore, a selection and screening process was conducted using the following inclusion criteria: (1) articles were empirical research or conceptual studies relevant to the topic of Sekolah Alam's and environmental character education; (2) published during the 2024–2025 period; (3) in Indonesian or English; and (4) peer-reviewed.

The search, screening, and eligibility determination stages of articles followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure transparency and replicability in the literature selection process (Page et al., 2021). Articles that met the inclusion criteria were then analysed using a thematic analysis approach to identify key themes, such as the implementation of environmental education, character building strategies, and the ecological values developed (Braun & Clarke, 2006). The analysis was conducted conceptually, adhering to the concept-centric review principle (Webster & Watson, 2002), so that the study results were not only descriptive but also provided theoretical contributions to the development of environmental character studies in the context of Sekolah Alam's, as shown in Figure 1.

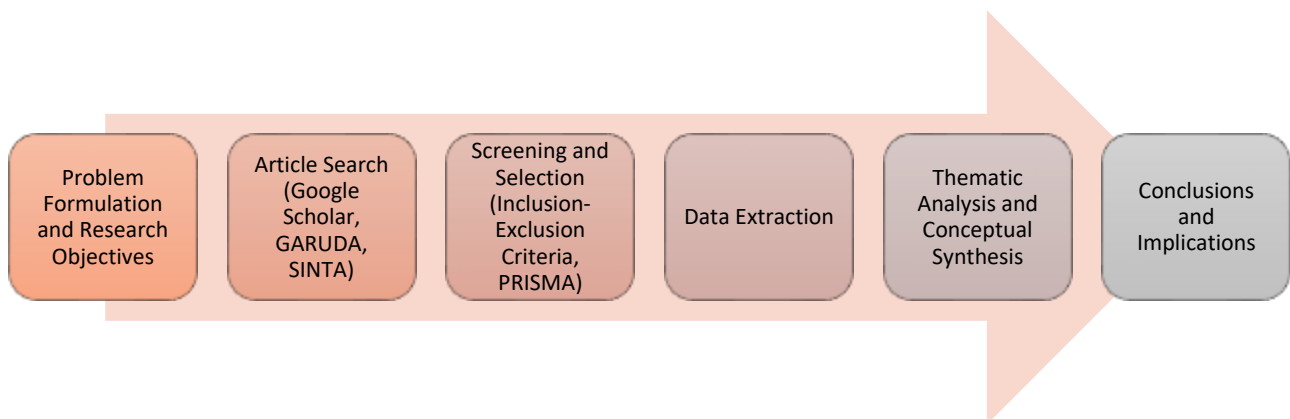


Figure 1. The stages of the method

## C. RESEARCH RESULT AND DISCUSSION

Table 1 below presents a comparison of the results of a literature review regarding the implementation of various educational approaches in *Sekolah Alam* to foster environmental awareness in students.

Table 1. Educational Approach in Sekolah Alam

No	Researchers and Years	Research Title	Research Focus	Key Findings	Relevance to This Study
1	Ardila et al. (2025)	<i>An Analysis of Contextual Learning in Forming Environmentally</i>	Examining the application of contextual learning in	Contextual learning effectively builds ecological awareness by	Provides a theoretical basis that contextual learning can be

No	Researchers and Years	Research Title	Research Focus	Key Findings	Relevance to This Study
		<i>Caring Character in Students of SD IT Alam Nurul Islam</i>	fostering environmental care character in nature-based elementary schools.	linking material to students' real-life experiences. Environmental values develop through hands-on activities such as waste management and planting.	integrated into the <i>Sekolah Alam</i> curriculum to instill ecological values.
2	Nabila & Efferi (2025)	<i>Integration of Islamic Religious Education Learning with Environmentally Aware School Culture in Building Environmental Awareness at Aisyah Islamic Sekolah Alam (Radhiyallahu'Anha)</i>	Examining the integration between Islamic Religious Education (PAI) learning and school culture in forming environmentally conscious characters.	Religious values reinforce the internalization of environmental awareness. Students understand that protecting the environment is part of their spiritual and moral responsibility.	Broadening perspectives by emphasizing the religious and cultural dimensions of schools as a reinforcement for the formation of environmentally conscious character.
3	Fanni Virskya et al. (2025)	<i>Creating an Environmentally Conscious Generation Through Education in Sekolah Alam's Using the Experiential Learning Method (Learning Through Experience) at Nurul Islam Nature IT Elementary School</i>	Analysing the application of experiential learning methods to foster environmental awareness among elementary school students.	Experiential learning methods effectively increase empathy and ecological responsibility. Students experience a reflective process after interacting directly with nature.	Strengthening the argument that direct experience and reflection are central to ecological character formation in the context of Sekolah Alam's.

## 1. Integration of Environmentally Caring Characters into the *Sekolah Alam* Curriculum and Learning

The integration of environmental values into the *Sekolah Alam* curriculum is not implemented separately through specific subjects, but rather is internalized throughout all learning activities and school culture. Ardila et al. (2025) emphasize that contextual learning is the primary approach in developing environmentally caring character in students, where every learning activity is directly linked to daily life and the surrounding natural phenomena (Ardila et al., 2025). Thus, students not only understand environmental concepts theoretically but are also able to apply them in real-world situations.

Furthermore, the experiential learning model implemented at SD IT Alam Nurul Islam provides learning experiences that directly engage with nature (Virskya et al., 2025). Through activities such as farming, ecosystem observation, and organic waste management, students learn to understand the interconnectedness between humans and the environment. Meanwhile, Nabila and Efferi found that the integration of Islamic values through Islamic Religious Education (IS) and school culture strengthens the spiritual dimension of environmental awareness (Nabila & Efferi, 2025). Religious values such as trust and responsibility for God's creation serve as a moral foundation for developing students' ecological awareness. Therefore, the *Sekolah Alam* curriculum emphasizes not only knowledge acquisition but also the development of sustainable, environmentally friendly values, attitudes, and habits through contextual and meaningful learning experiences.

These findings indicate that the integration of environmental values in *Sekolah Alam* is holistic and not limited to the curriculum. Descriptively, contextual and experiential learning positions the

environment as both a primary learning resource and a space for value actualization, enabling students to experience an authentic and reflective learning process. This approach demonstrates that ecological character formation is not achieved solely through the transmission of knowledge but requires direct experience that allows for the gradual internalization of values through concrete practice and habituation. Thus, the combination of a contextual approach, direct experience, and value reinforcement demonstrates that the Sekolah Alam's curriculum simultaneously addresses the cognitive, affective, and behavioral domains, potentially resulting in more profound and sustainable character change than partial learning models.

## **2. The Role of Teachers as Facilitators in the Formation of Environmentally Conscious Character**

Teachers play a central role in the process of developing environmentally conscious character in Sekolah Alam's. This role is not limited to delivering material, but rather as facilitators who help students discover the meaning of every interaction with nature. Ardila et al. (2025) highlight that the success of contextual learning in fostering environmental awareness depends heavily on teachers' ability to connect lesson topics to real-world conditions in their surroundings. Teachers play a role in creating learning experiences that enable students to think critically, reflectively, and responsibly towards nature.

Furthermore, Nabila and Efferi (2025) emphasize that teachers in Sekolah Alam's also serve as moral and spiritual role models. By integrating religious values into every learning activity, teachers not only teach how to protect the environment but also why it is a moral obligation for humans as caliphs on earth. In the context of experiential learning methods, Fanni Virskya et al. (2025) add that teachers function as mentors who encourage students to learn through direct experience and reflection on their activities in nature. Teachers help students understand the ecological consequences of their actions and foster awareness of the importance of maintaining the balance of nature. Thus, the role of teachers in Sekolah Alam's is holistic, encompassing the intellectual, emotional, and spiritual aspects that collectively shape students' ecological character.

These three findings descriptively indicate that the role of teachers in *Sekolah Alam* has gone beyond traditional instructional functions and moved toward a transformative role that touches the cognitive, affective, and spiritual dimensions of students. Teachers not only organize contextual learning through direct experiences in nature, but also build meaningful bridges between those experiences and moral values and ecological responsibility. This underscores the importance of the quality of pedagogical relationships between teachers and students in the formation of environmentally conscious character in Sekolah Alam. Teachers are expected to be able to act as facilitators, role models, and reflective companions so that the process of internalizing values takes place more deeply. Thus, the success of *Sekolah Alam* in forming environmentally conscious characters rests not only on curriculum design, but also on the capacity of teachers to deliver meaningful, reflective, and exemplary learning.

## **3. Impact of Sekolah Alam's Education on Environmentally Conscious Character**

Education in Sekolah Alam's has been shown to have a significant impact on developing environmentally conscious character in students. Based on research by Ardila et al. (2025), the implementation of contextual learning increases students' awareness of the importance of maintaining a clean and sustainable school environment. Students not only understand the concept of environmental stewardship but also begin to demonstrate concrete behaviors such as disposing of waste properly, conserving water, and participating in reforestation activities. Similarly, research by Virskya et al. (2025) found that experiential learning methods foster reflective stewardship, where students learn from direct experience and internalize ecological values as part of their lifestyle.

Meanwhile, Nabila and Efferi (2025) demonstrated that an approach that integrates religious and cultural values within the school results in more profound attitudinal changes. Students act not only out of habit but also out of a moral and spiritual awareness that protecting the environment is a form of worship and social responsibility. The combination of hands-on learning experiences, teacher role models, and the reinforcement of spiritual values makes *Sekolah Alam* education effective in shaping a generation with ecological character. Thus, education in *Sekolah Alam*'s can be viewed as a model of sustainable education that not only transfers knowledge but also fosters ecological awareness that is embedded in the students' personalities.

Descriptively, the results of several studies show changes in three main domains: knowledge, attitudes, and behaviour of students after participating in learning at the *Sekolah Alam*. Increased awareness followed by concrete practices such as maintaining cleanliness, participating in reforestation, and conserving resources demonstrates that the learning process does not stop at conceptual understanding, but continues to habituate behaviour. These findings indicate that the effectiveness of *Sekolah Alam* education lies in the integration of direct experience, reflection on values, and strengthening the moral-spiritual dimension. Changes that are reflective and based on internal awareness tend to be more sustainable than changes driven solely by external rules or supervision. Thus, the impact of *Sekolah Alam* education can be understood as a process of character transformation that occurs through the comprehensive internalization of values, so that environmental awareness is not merely a momentary action, but rather part of the identity and life orientation of students.

#### D. CONCLUSSIONS AND RECOMENDATIONS

Based on the results of a review of various literature, it can be concluded that education in *Sekolah Alam*'s makes a significant contribution to the development of environmentally conscious character in students. The integration of ecological values into the curriculum and contextual learning enable students to understand the reciprocal relationship between humans and the environment more deeply. Through an experiential learning approach, students not only acquire conceptual knowledge but also experience the process of internalizing environmental values in a concrete way through learning activities that involve direct contact with nature.

*Sekolah Alam* education can develop ecological awareness and sustainable behavior in students through an integrative and humanistic approach. *Sekolah Alam*'s are not only learning spaces but also living spaces that foster ecological mindsets, social empathy, and ecological spirituality. Therefore, this educational model can inspire other educational institutions to develop curricula that are more focused on environmental conservation and sustainable character development. Based on the results of this literature review, the researchers recommend that formal educational institutions adopt the principles of *Sekolah Alam* learning, particularly in integrating environmental awareness into all learning activities, not just specific subjects. A contextual and experience-based approach can be applied at various levels of education to foster ecological awareness from an early age.

#### REFERENCES

- Andres, J., Sapsuha, N., & Wah, W. (2025). Pemanfaatan Laboratorium Alam Sebagai Media Pembelajaran Di Kelurahan Fora Madiahi. *JBES: Journal of Biology Education and Science*, 5(2), 18–25.
- Ardila, Y. P., Fatikah, E. S. P., Muslichah, A. D., Nurcahyani, M. D., Saputra, M. R., & Muhtarom, T. (2025). Analisis Pembelajaran Kontekstual Dalam Membentuk Karakter Peduli Lingkungan Pada Peserta Didik SD IT Alam Nurul Islam. *PESHUM: Jurnal Pendidikan, Sosial Dan Humaniora*, 4(2), 1769–1773.
- Azizah, N. P. N., & Amalia, N. (2023). Kegiatan Adiwiyata Sebagai Sarana Penanaman Profil Pelajar Pancasila di Sekolah Dasar. *Jurnal Moral Kemasyarakatan*, 8(1), 46–63. <https://doi.org/10.21067/jmk.v8i1.8422>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

- Cahyani, R. P., Rahmat, A., Hamdiyati, Y., Amprasto, A., & Jamil, M. W. (2025). Does environmental knowledge predict attitudes and behaviors in environmental literacy? Evidence from senior high school students. *JPBI (Jurnal Pendidikan Biologi Indonesia)*, 11(3), 828–840. <https://doi.org/10.22219/jpbi.v11i3.41213>
- Kitchenham, B., & Charters, S. (2007). *Guidelines for performing Systematic Literature Reviews in Software Engineering*. Keele University.
- Kurniasari, N. A., & Vistrina, L. (2023). Peran Program Sekolah Adiwiyata dalam Pembentukan Karakter Peduli Lingkungan Murid SD. *Jurnal Pembelajaran, Bimbingan, Dan Pengelolaan Pendidikan*, 3(12), 1087–1094. <https://doi.org/10.17977/um065v3i122023p1087-1094>
- Latifah, A. N., Muti Diah Khairani, Latifah Anjar Agustina, Isnai Wahyu Nurchasanah, Safira Aulia Rahma Diani, & Taufik Muhtarom. (2025). Implementasi Kurikulum *Sekolah Alam* dalam Pembentukan Pendidikan Karakter. *Indo-MathEdu Intellectuals Journal*, 6(1), 1170–1181. <https://doi.org/10.54373/imeij.v6i1.2601>
- Loka, I., & Listiana, A. (2022). Analisis Pembentukan Karakter Anak Usia Dini Pada Kurikulum Sekolah Alam. *CERIA (Cerdas Energik Responsif Inovatif Adaptif)*, 5(6), 709–721.
- Nabila, F., & Efferi, A. (2025). Integrasi Pembelajaran PAI dengan Budaya Sekolah Peduli Lingkungan dalam Membangun Kepedulian Lingkungan di *Sekolah Alam* Islam Aisyah Radhiyallahu'Anha. *Panthera: Jurnal Ilmiah Pendidikan Sains Dan Terapan*, 5(4), 1153–1169. <https://doi.org/10.36312/panthera.v5i4.685>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*, n71. <https://doi.org/10.1136/bmj.n71>
- Pujaningtyas, S. W., Kartakusumah, B., & Lathifah, Z. K. (2019). Penerapan Model Experiential Learning Pada *Sekolah Alam* Untuk Menciptakan Pembelajaran Yang Menyenangkan. *TADBIR MUWAHHID*, 3(1), 40. <https://doi.org/10.30997/jtm.v3i1.1653>
- Rahayu, I., Suwarna, A. I., Wahyudi, E., Asfahani, A., & Jamin, F. S. (2024). Pendidikan Lingkungan Hidup dengan Membentuk Kesadaran Lingkungan dan Tanggung Jawab Sosial di Kalangan Pelajar. *Global Education Journal*, 2(2), 101–110. <https://doi.org/10.59525/gej.v2i2.344>
- Setiani, D., & Putri, R. W. (2024). The influence of nature school's curriculum on student's environmentally caring behaviour (Study on *Sekolah Alam* Bekasi). *Asian Journal Collaboration of Social Environmental and Education*, 2(1), 46–59. <https://doi.org/10.61511/ajcsee.v2i1.2024.1149>
- Sunarto, S. (2023). Environmental Literacy and Care Behavior Through Adiwiyata Program at Elementary School. *AL-ISHLAH: Jurnal Pendidikan*, 15(3), 3040–3050. <https://doi.org/10.35445/alishlah.v15i3.3887>
- Tompodung, T. C. G., Rushayati, S. B., & Aidi, M. N. (2018). Efektivitas Program Adiwiyata Terhadap Perilaku Ramah Lingkungan Warga Sekolah Di Kota Depok. *Jurnal Pengelolaan Sumberdaya Alam Dan Lingkungan (Journal of Natural Resources and Environmental Management)*, 8(2), 170–177. <https://doi.org/10.29244/jpsl.8.2.170-177>
- Virskya, A. F., Surani, Fazira, N. H., Nadhila Dzikrina M, Putri, S. D. K., & Muhtarom, T. (2025). Menciptakan Generasi Peduli Lingkungan Melalui Pendidikan di *Sekolah Alam* Dengan Metode Experiential Learning (Belajar melalui Pengalaman) Di SD IT Alam Nurul Islam. *PESHUM: Jurnal Pendidikan, Sosial Dan Humaniora*, 4(2), 1561–1567.
- Webster, J., & Watson, R. T. (2002). Analyzing the past to prepare for the future: Writing a literature review. *MIS Quarterly*, 26(2), xiii–xxiii.
- Widya Karmila Sari Achmad, Nur Abidah Idrus, Muh. Irfan, & Unga Utami. (2024). Pemanfaatan Lingkungan Alam sebagai Media dan Sumber Belajar pada Komunitas Guru Pecinta Alam (GURILA). *International Journal of Community Service Learning*, 8(1), 70–78. <https://doi.org/10.23887/ijcsl.v8i1.75907>
- Wulansari, B. Y. (2017). Model Pembelajaran Berbasis Alam Sebagai Alternatif Pengembangan Karakter Peduli Lingkungan. *Jurnal Dimensi Pendidikan Dan Pembelajaran*, 5(2), 95–105. <https://doi.org/10.24269/dpp.v5i2.575>