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INTEGRATION OF ESD VALUES THROUGH THE PBLHS MOVEMENT FOR STRENGTHENING ENVIRONMENTAL CARE CHARACTER IN ISLAMIC PRIMARY SCHOOL

Diajeng Septia Winni Ardila[1], Elya Umi Hanik[2]
[12]Department of Madrasah Ibtidaiyah Teacher Education,
Sunan Kudus State Islamic University
[1]Ajengardila03@gmail.com, [2]elyaumi@uinsuku.ac.id

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Abstract: This study analyzes the integration of Education for Sustainable Development (ESD) values through the Environmental Care and Culture Movement in Schools (PBLHS) to strengthen environmental care character at MIN 4 Demak. The issue is important because schools should not merely promote cleanliness habits, but should connect environmental awareness with ecological sustainability, social responsibility, and prudent resource use. The research employed a qualitative case study approach. Data were collected through interviews, observation, documentation, and analysis of the school profile, the four-year PBLHS plan, monitoring and evaluation reports, and interview guidelines. The findings show that ESD values were integrated through written planning, daily habituation, environmental learning integration, teacher role modelling, and periodic evaluation based on behavioral change and physical environmental conditions. Core activities included waste sorting, 3R practices, water and energy conservation, greening programs, seedling cultivation, tree planting, biopore development, and campaigns to reduce plastic waste. The study indicates that PBLHS not only cultivates cleanliness habits but also develops responsibility, discipline, cooperation, and sustainability awareness among students. Therefore, integrating ESD values through PBLHS has proven effective in strengthening environmental care character contextually and sustainably.

Keywords: ESD; PBLHS; Environmental Care Character

Abstrak: Penelitian ini bertujuan menganalisis integrasi nilai *Education for Sustainable Development* (ESD) melalui Gerakan Peduli dan Berbudaya Lingkungan Hidup di Sekolah (PBLHS) untuk penguatan karakter peduli terhadap lingkungan di MIN 4 Demak. Kajian ini penting karena sekolah tidak cukup hanya membiasakan perilaku bersih, tetapi juga perlu menautkan kepedulian terhadap lingkungan dengan keberlanjutan ekologis, tanggung jawab sosial, dan penggunaan sumber daya secara bijak. Penelitian menggunakan pendekatan kualitatif dengan desain studi kasus. Data diperoleh melalui wawancara, observasi, dokumentasi, serta telaah terhadap profil madrasah, dokumen

rencana PBLHS empat tahunan, hasil pemantauan dan evaluasi, serta pedoman wawancara penelitian. Hasil penelitian menunjukkan bahwa integrasi nilai ESD di MIN 4 Demak dilaksanakan melalui perencanaan program yang tertulis, pembiasaan harian, pengintegrasian materi lingkungan dalam pembelajaran, penguatan keteladanan guru, serta evaluasi berkala berbasis perubahan perilaku dan kondisi fisik lingkungan. Kegiatan utama meliputi pemilahan sampah, aksi 3R, konservasi air dan energi, penghijauan, pembibitan, penanaman pohon, pembuatan biopori, dan kampanye pengurangan sampah plastik. Temuan menunjukkan bahwa Gerakan PBLHS tidak hanya membentuk kebiasaan menjaga kebersihan, tetapi juga menumbuhkan tanggung jawab, disiplin, kerja sama, dan kesadaran keberlanjutan pada peserta didik. Dengan demikian, integrasi nilai ESD melalui PBLHS terbukti memperkuat karakter peduli lingkungan secara lebih kontekstual dan berkelanjutan.

Kata Kunci: ESD; PBLHS; Karakter Peduli Lingkungan

INTRODUCTION

Environmental degradation remains a serious issue in Indonesia. The increase in waste generation, inefficient energy use, pollution, and the decline in environmental quality indicate that ecological problems cannot be solved solely through regulations but also require a transformation in character and culture. In the context of education, schools hold a strategic position to instill ecological responsibility from an early age through teaching, habituation, and role modeling. (Utami et al., 2024). The Adiwiyata Program and the Environmental Care and Culture Movement in Schools (PBLHS) are relevant policy instruments to address this need. Adiwiyata encourages schools to integrate environmental awareness into policies, curricula, participatory activities, and the management of environmentally friendly facilities. Several studies have shown that the implementation of Adiwiyata strengthens environmental care attitudes, enhances student participation, and fosters a cleaner, healthier, and greener school culture (Murtiningsihl et al., 2023).

Nevertheless, the implementation of environmental programs in schools often faces sustainability challenges. Some schools have successfully received awards, but they may not necessarily be able to internalize environmental values into the habits and awareness of the entire school community. Therefore, recent studies emphasize the need to view Adiwiyata not merely as an administrative program, but as a model for social and cultural transformation (Notrilauvia et al., 2025). This perspective aligns with the green school management study, which emphasizes that the success of the program is largely determined by planning, implementation, monitoring, and sustained multi-stakeholder involvement (Nurkhasanah et al., 2025). In a broader framework, environmental education needs to be linked with Education for Sustainable Development (ESD). ESD not only teaches environmental cleanliness awareness but also integrates ecological, social, and economic dimensions in a balanced manner. The integration of ESD values allows students to understand that sorting waste, saving water, and caring for plants are not merely routines, but part of the responsibility for the sustainability of shared life. (Fortuna et al., 2023).

Previous studies have shown that environmental-based programs in primary and secondary schools contribute to the development of an environmental care character. Putri Sari et al. (2021) It shows that Adiwiyata schools can build an environmental care character through habituation and the integration of Education for Sustainable

Development (ESD). Murtiningsihl et al. (2023) It emphasizes that implementing the Adiwiyata program encourages the development of discipline, responsibility, and student involvement in maintaining the school environment. Fortuna et al. (2023) It also found that the integration of environmental care character in the Adiwiyata school program occurs through habituation, reinforcement of learning, and teacher role modeling. Meanwhile, Ashar et al. (2024) and Utami et al. (2024) show that the Adiwiyata program still faces challenges, including consistency in student behavior, coordination among school members, and the internalization of values outside of school. In the context of madrasah, MIN 4 Demak is particularly interesting to examine because, institutionally, it has developed an identity as an environmentally conscious and culturally responsible madrasah.

This condition is interesting to study in greater depth, especially from the perspective of integrating ESD values. To date, many studies have examined the implementation of Adiwiyata or PBLHS in terms of fostering an environmental care character, but few have specifically linked it to the dimensions of ESD in the context of madrasah ibtidaiyah. However, this linkage is crucial so that environmental education does not stop at physical cleanliness but evolves into sustainability awareness. Based on the description above, this study aims to analyze the implementation of the PBLHS Movement at MIN 4 Demak, describe the integration of ESD values in programs and lessons, and explain the program's success in strengthening students' environmental care character. This study is expected to provide theoretical contributions to the development of ESD-based environmental education and practical contributions for madrasahs that aim to strengthen the PBLHS movement sustainably.

METHODS

This study uses a qualitative approach with a case study design. This approach was chosen because the research aims to gain an in-depth understanding of the implementation of the PBLHS Movement and the integration of ESD values in the real context of a madrasah, rather than testing statistical relationships between variables. The research location is MIN 4 Demak. The research informants consist of the head of the madrasah, the PBLHS coordinator, classroom teachers, and students involved in the implementation of the PBLHS program. Informants were selected purposively based on their direct involvement in the planning, implementation, and evaluation of the program. In addition to field data, the study also uses documentary data, including the madrasah profile, the 2023–2026 PBLHS Movement plan document, the results of the 2024 PBLHS activity monitoring and evaluation, and the research interview guidelines (MIN 4 Demak, 2023; MIN 4 Demak, 2024; MIN 4 Demak, 2025).

Data collection techniques were conducted through observation, interviews, and documentation. Observation was used to identify daily habits, the physical condition of the madrasah environment, and the involvement of school members in PBLHS activities. Interviews were conducted with the head of the madrasah, the PBLHS coordinator, classroom teachers, and students, focusing on aspects of planning, implementation, evaluation, habituation, understanding, application, and reflection. Documentation was used to trace written program evidence and activity outcomes. Data analysis was carried out through the stages of data reduction, data presentation, and conclusion. The validity of the data was strengthened through source triangulation and technique triangulation, which involved comparing interview data, observation findings, and madrasah document contents. This strategy was used to ensure that interpretations regarding the integration of

ESD values and the strengthening of environmental care character are based on stronger empirical foundations.

RESULTS AND DISCUSSION

Results

This study was conducted at MIN 4 Demak, located in Kedungwaru Lor Village, Karanganyar Subdistrict, Demak Regency. This madrasah has a strong institutional identity as a school that fosters an environmental care culture and is moving towards becoming an independent Adiwiyata school. Physically, the madrasah environment is supported by various facilities that promote environmentally friendly behaviors, such as classrooms, a reading gazebo, a canteen, toilets, and a greenhouse, all serving as media for environmental education and practice. This condition shows that the madrasah not only provides formal learning spaces but also prepares a physical environment that can serve as a medium for character education based on direct experience. The object of this study is the integration of Education for Sustainable Development (ESD) values through the Environmental Care and Culture Movement in Schools (PBLHS) for strengthening environmental care character. The research focus is directed towards the implementation of the PBLHS Movement, seen through its planning, implementation, and evaluation, as well as its success in fostering an environmental care character, analyzed through habituation, understanding, application, and reflection.

Thus, this study not only describes the environmental program implemented by the madrasah but also examines how the program is designed, executed, interpreted, and influences the formation of students' character. Administratively, MIN 4 Demak has a PBLHS Movement Plan Document for the years 2023 to 2026, which includes the potential issues, types of activities, behavior change targets, physical environmental condition change targets, responsible parties, funding sources, and involved stakeholders. Furthermore, the madrasah also has documents containing monitoring and evaluation results of PBLHS activities, which show the achievements in behavior change and improvements in the school's physical environmental conditions. The existence of these documents indicates that PBLHS at MIN 4 Demak is not implemented spontaneously, but has become part of a planned and sustainable institutional effort (MIN 4 Demak, 2023; MIN 4 Demak, 2024; MIN 4 Demak, 2025). The findings in this section focus on the field facts obtained through interviews, observations, and documentation, and can be read as an empirical portrait of how sustainability values are brought to life in the school culture through PBLHS.

Based on the results of interviews, observations, and document reviews, the implementation of the Environmental Care and Culture Movement in Schools (PBLHS) at MIN 4 Demak follows a systematic process, starting from planning, implementation, to evaluation. This program is not implemented spontaneously but is designed within a structured framework, carried out through routine and participatory activities, and evaluated to assess both achievements and challenges. The research findings indicate that the planning of the PBLHS Movement at MIN 4 Demak is carried out systematically and institutionalized within the madrasah’s work program. Informants, including the head of the madrasah, the PBLHS coordinator, and classroom teachers, explained that the implementation of PBLHS is driven by the madrasah's commitment to implement the Adiwiyata program while also preparing a generation that is concerned about the environment. This commitment is articulated in the form of written programs, a team implementation decree, and a medium-term activity plan. The PBLHS plan document

shows that the madrasah has mapped various environmental issues such as waste management, sanitation and drainage, energy conservation, water conservation, and greening. Activity types, behavior change targets, physical environmental condition change targets, responsible parties, and involved stakeholders accompany each of these issues. This shows that the planning process focuses not only on symbolic activities but also addresses both behavioral aspects and physical environmental conditions simultaneously.

Based on interviews, ESD values have also begun to be incorporated into the planning stage. The environmental dimension is reflected in the program's focus on cleanliness, greening, and resource conservation. The social dimension is evident in the emphasis on cooperation, responsibility, and discipline in implementing the program. The economic dimension appears in the utilization of recycled materials and the focus on simple resource conservation. Teachers explained that these values are integrated into the environmental care mission, routine programs such as "Clean Friday," and some teaching materials. Support from the madrasah leadership is evident through the formation of a team, policy development, provision of facilities, and allocation of the program's budget. Thus, the planning stage at MIN 4 Demak not only reflects administrative readiness but also the readiness of values and the educational direction to be developed.

In the implementation stage, the research findings show that the PBLHS Movement at MIN 4 Demak is brought to life through daily habituation that is closely linked to the students' experiences. Informant teachers explained that activities such as classroom duties, Clean Friday, communal work, watering plants, waste sorting, and greening have become regular parts of the madrasah's routine. Teachers not only provide technical instructions but also use role modeling, habituation, discussions, simple projects, and integration with lessons, including linking them to religious values. In practice, teachers serve as role models, demonstrating how to dispose of waste, maintain cleanliness, and care for the environment, while students are actively involved as the main participants through duties, communal work, plant care, and classroom cleaning activities (MIN 4 Demak, 2023). Data from student informants further support these findings. Students mentioned that they learned about PBLHS from their teachers and understand the program as an activity aimed at maintaining the cleanliness of the school environment. They are accustomed to sweeping, disposing of waste properly, watering plants, participating in classroom duties, and engaging in communal work. Some students even stated that these activities are carried out without always being instructed, as they have become habitual. Observational results also show that the implementation of PBLHS is supported by a sufficiently adequate physical environment. Habits such as disposing of waste properly, the availability of functional facilities, classroom cleanliness, student participation in plant care, and the integration of environmental-based learning were all observed to be in place. This demonstrates that the program's implementation goes beyond verbal aspects and is truly reflected in the behavior of school members and the real conditions in the madrasah environment.

The research findings show that the evaluation of PBLHS implementation at MIN 4 Demak is conducted periodically through team meetings, teacher observations, and assessments of behavior changes, as well as changes in the physical environmental conditions of the school. Evaluation documents reveal that the madrasah has monitored various activities, such as strengthening the Adiwiyata team, socializing proper waste disposal, posting cleanliness posters, integrating environmental learning, tree planting, seedling production, and biopore creation. This evaluation demonstrates that the

madrasah not only implements the program but also strives to assess the extent to which the program impacts the school community (MIN 4 Demak, 2023). In the monitoring documents, several indicators show a relatively high achievement. Awareness among school members in various aspects is recorded at approximately 90%, the integration of learning with the students' living environment is also around 90%, and activities such as tree planting and the addition of biopores were reported to have been fully realized at 100%.

Interviews with teachers revealed that the evaluation is focused on students' habits of disposing of waste properly, maintaining classroom cleanliness, and participating in various environmental activities. Teachers also identified challenges, such as uneven student awareness, limited facilities, and budget constraints. As follow-up actions, the madrasah strengthened socialization, supervision, habituation, and program administration improvements. These findings indicate that the evaluation at MIN 4 Demak does not stop at assessment but serves as a basis for improving the implementation strategies of the program moving forward. In addition to being assessed from the implementation aspect, this study also examines the success of the PBLHS Movement in fostering an environmental care character among students. This success is reflected through habituation, understanding, application, and reflection that have developed in daily activities at the madrasah. These four aspects show that the environmental program is not only carried out as a school activity but truly influences the formation of students' attitudes, understanding, and behavior in daily life.

The research findings show that the success of PBLHS at MIN 4 Demak is strongly based on habituation. Teacher informants explained that habituation is carried out through classroom duties every morning, Clean Friday, waste sorting, watering plants, and regular environmental care activities. Each class even has plants that must be cared for by students, so the relationship between students and the school environment is built through activities that are continually repeated. Teachers, the head of the madrasah, and educational staff also serve as role models in waste disposal, participating in classroom cleaning, and reminding students who are not yet orderly. Observation data indicate that habituation indicators, such as the habit of disposing of waste without being instructed, consistent duty participation, discipline in maintaining cleanliness, and environmental activity routines, are all observed to be running smoothly. This suggests that habituation has become the primary foundation for building an environmental care character at MIN 4 Demak. In terms of understanding, the research findings show that teachers strive to explain the importance of maintaining the environment through lessons, real-life examples, and connections to subjects such as Science, Social Studies, and social values. Teachers do not just set rules but also explain why cleanliness, energy conservation, and environmental maintenance are important for daily life. Students' responses show that they have a fairly good basic understanding. Students define environmental care as maintaining cleanliness and sustainability, understanding the consequences of a dirty environment, and mentioning cooperation and responsibility as values they have learned from the program. Observation results also show that students can respond to teachers' questions about the importance of maintaining the environment and link environmental care behaviors with the comfort of the school.

In the application aspect, the research findings show that students have implemented environmental care values into real actions. Teachers mentioned that the most noticeable behaviors include disposing of waste properly, sweeping and tidying the classroom, watering plants, and participating in environmental activities such as Clean

Friday. Additionally, some students also engage in environmental care actions without being instructed, such as picking up trash they see scattered around. Student informants also confirmed that they are willing to remind their peers not to litter and apply the same habits at home. Observation results show active student participation, independent initiative, social care in reminding each other, and consistent, environmentally friendly behavior outside of scheduled activities. In the reflection aspect, the research findings show that the madrasah conducts program evaluations, and teachers encourage students to reflect on environmental care activities through simple discussions after cleaning activities. Teachers stated that students have become more aware of cleanliness, and the school environment is cleaner than before. Students demonstrated a good level of reflection. They assessed themselves as more environmentally conscious, identified behaviors that need to be maintained, and mentioned things they still wish to improve, such as being more diligent in taking care of plants. Observation results show that students are able to accept feedback from teachers, recognize mistakes, and improve their behavior after being guided. This indicates that reflection at MIN 4 Demak has become part of the ongoing character-building cycle, from actions to awareness.

Discussion

The research findings show that the implementation of the Environmental Care and Culture Movement in Schools (PBLHS) at MIN 4 Demak has fulfilled the fundamental principles of an environmentally cultured school, namely participatory and sustainable principles. This is reflected in the existence of written programs, a clear division of roles, the involvement of various school stakeholders, and evaluations conducted periodically. The existence of a four-year PBLHS planning document and activity monitoring reports indicates that the environmental program in the madrasah is not implemented incidentally, but has become part of a well-directed institutional governance system. From the perspective of environmental education, this finding is important because the development of environmental care character cannot rely solely on individual awareness, but requires a school system capable of maintaining the continuity of values and practices. These findings are in line with Irawati et al. (2024), which emphasizes that the integration of environmentally conscious policies into the school's vision, KTSP (School-Based Curriculum), RKT (Annual Work Plan), and RKAS (School Budget Work Plan) provides a tangible contribution to the formation of an environmental care character in a more systematic manner.

From the perspective of Education for Sustainable Development (ESD), the implementation of PBLHS at MIN 4 Demak shows the most significant reinforcement in the ecological dimension. Waste management programs, water conservation, energy conservation, greening, seedling production, and biopore creation demonstrate that environmental education does not stop at delivering information but is translated into concrete learning experiences. At the madrasah ibtidaiyah level, such an approach is crucial because children find it easier to understand environmental values through hands-on practices rather than abstract conceptual explanations. These findings are in line with the results of the research by Putri Sari et al. (2021), which shows that an environmental care character is formed when schools link the management of cleanliness, resources, and environmental education into concrete learning experiences. In the framework of ESD, this condition indicates that the madrasah has begun to shift from an informative environmental education model to a transformative environmental education model. Therefore, the strengthening of environmental care character will be more effective if it

is built through practices that are repeatedly carried out, experienced, and meaningfully interpreted by students directly (Utami et al., 2024).

In addition to the ecological dimension, this study also shows that PBLHS at MIN 4 Demak contains a strong social dimension. Environmental habituation is not carried out individually, but is built through cooperation between the head of the madrasah, teachers, students, educational staff, the school committee, the surrounding community, and other external parties. These findings indicate that the environmental care character is not positioned solely as a personal responsibility but as a shared culture. In character education theory, a consistent social environment that provides role modeling, reinforcement, and collective participation is an essential condition for the development of a lasting character. Therefore, the involvement of multiple stakeholders in the PBLHS program at MIN 4 Demak not only supports the technical implementation of the program but also fosters social awareness among students that maintaining the environment is a collective responsibility (Nurkhasanah et al., 2025). It shows that the success of PBLHS is evident when the school is able to build consistency in the behavior of school members through communal work, waste sorting, the use of tumblers, and the habituation of energy conservation. This means that the social dimension of PBLHS at MIN 4 Demak is not only found in the involvement of school members, but also in the formation of a collective culture that teaches students about cooperation, social responsibility, and care for the shared living space.

In the economic dimension, the research findings show that the integration of ESD values at MIN 4 Demak is evident in the habituation of energy conservation, the management of useful waste, and resource usage efficiency. Although this dimension is not as strong as the ecological and social dimensions, its presence remains important because ESD emphasizes that sustainability is closely related to how humans use resources responsibly. When students are habituated to saving electricity, using water wisely, and reusing certain items, they are essentially being introduced to a way of thinking that considers utility value, efficiency, and long-term impact(Jayanti, 2024). These findings are relevant to the study by Notrilauvia et al. (2025), which states that Adiwiyata ideally should not stop at the identity of a green school but should become an instrument for transforming collective behavior through practices such as recycling, the use of reusable items, and sustainable governance. The success of the program in this study is demonstrated by the increased development of students' character, including discipline, responsibility, independence, and care for the surrounding environment. This means that a consistent, well-directed educational environment, supported by teachers, can strengthen students' environmental care character (Awwaliyah et al., 2023).

This study also found that the integration of learning is a strategic point in strengthening the environmental care character. Teachers not only give technical instructions but also link environmental themes with assignments, habituation, and simple reflection. Evaluation documents showing around 90 percent integration of learning with the students' living environment indicate that environmental issues have been incorporated into students' formal learning experiences. Pedagogically, this is very important because character education is more robust when the values being instilled are not separated from the learning process. When environmental issues are integrated into learning objectives, teaching materials, and assignments, students not only engage in good habits but also understand the reasons and meaning behind those behaviors (Fortuna et al., 2023). The environmental care character developed at MIN 4 Demak is not only reflected in behaviors related to cleanliness but also evolves into discipline,

responsibility, cooperation, and concern for sustainability. These findings indicate that environmental education contributes to the development of a broader character. From the perspective of character education, environmental care does not stand alone but intersects with values such as responsibility, discipline, social care, and adherence to common norms. Students who are accustomed to maintaining classroom cleanliness, caring for plants, and participating in communal work are, in fact, learning about responsibility for the shared living space (Ratnasari et al., 2024).

These findings are also supported by Angelita et al. (2025), who show that the success of the Adiwiyata program is evident from indicators such as school cleanliness, waste management, greening, and classroom cleanliness, all of which fall within the good to very good categories. Thus, this study emphasizes that PBLHS at MIN 4 Demak not only brings about physical changes in the school environment but also shapes students' habitus to be more disciplined, responsible, and cooperative. On the other hand, this study also found challenges in maintaining consistency in students' behavior. Some students still need reminders to dispose of waste properly and to independently maintain environmental care habits. These findings indicate that character formation is a long-term process that requires repetition, guidance, and internalization of values.

The practical implication of these findings is the need for strengthening the PBLHS strategy to be more reflective and participatory. Journals on habits, environmentally friendly home projects, family involvement, and strengthened evaluations can serve as ways to ensure that the environmental care character extends beyond the school space. From the ESD perspective, sustainability cannot be built solely within the classroom. Environmental care character can be understood as attitudes and actions that demonstrate concern for environmental preservation through efforts to maintain cleanliness, prevent damage, and restore environments that have been damaged. In the context of schools, this character is reflected in habits such as properly disposing of waste, maintaining classroom cleanliness, and caring for the surrounding school environment (Hanik E. et al., 2021). The values taught at school need to align with the practices in the home and social environment of the students. Thus, one of the contributions of this study is to show that the success of PBLHS is not only determined by the internal school program but also by the expansion of the influence of values beyond the school (Utami et al., 2024).

In the context of madrasah, the integration of ESD values through PBLHS has its own distinctiveness, as it can be combined with the development of morals, responsibility, and a clean living culture that carries religious values. This provides an opportunity for madrasah to position sustainability issues not only as an environmental technical program but also as part of holistic character education. Maintaining cleanliness, using resources without excess, caring for plants, and not damaging the environment can be linked with moral and religious education, which has become a strong part of the madrasah's culture. Thus, PBLHS at MIN 4 Demak can be viewed as a good practice that connects school policies, the learning culture, and character education within one sustainable movement (Irawati et al., 2024b). The findings of this study can also serve as a reference for other madrasahs that are developing PBLHS or Adiwiyata. The experience of MIN 4 Demak shows that the program will be stronger when it has a clear written program direction, a clear division of roles, adequate supporting facilities, consistent daily habituation, and periodic evaluations. However, this study has limitations as it focuses more on describing the process, meaning, and practices of character education, and has not quantitatively measured changes in students' behavior over the long term. Additionally, the study only

focuses on a single educational unit, so its results are not intended to be widely generalized. Nevertheless, the depth of data from documents, interviews, and observations provides a strong insight into how the integration of ESD values can be built through PBLHS in madrasahs. Future research could combine both qualitative and quantitative approaches while expanding the scope to multiple schools to allow for a more comprehensive comparison of the model implementation, challenges, and program innovations (Yuningsih et al., 2025).

CONCLUSION

Based on the research conducted at MIN 4 Demak, it can be concluded that the Environmental Care and Culture Movement in Schools (PBLHS) has been successfully implemented and has brought positive impacts on strengthening the environmental care character among students. The systematic implementation process of PBLHS, starting from clear planning, participatory execution, and periodic evaluations, has made this program not only a formal school activity but also a culture that has become ingrained in the school community. The success of this PBLHS Movement is significantly influenced by the application of Education for Sustainable Development (ESD) values, which encompass ecological, social, and economic dimensions. The program, which integrates waste management, water and energy conservation, greening, as well as the habituation of cleanliness and sustainability, shows that environmental education at MIN 4 Demak goes beyond technical aspects and has evolved into transformative education.

More broadly, this research provides an important contribution by demonstrating that the integration of ESD values can strengthen a more responsible and sustainable environmental care character. This is highly relevant in the context of education in madrasahs, where environmental education not only focuses on physical cleanliness but also on deeper social and ecological awareness. Practically, these findings can serve as a reference for other schools in implementing similar programs, which should not only be limited to environmental management but also include character formation through consistent and sustainable habituation. Support from all parties in the school, including the principal, teachers, students, and the surrounding community, is crucial in achieving the success of this program. Therefore, the strengthening of the environmental care character through PBLHS at MIN 4 Demak can serve as a model for other schools wishing to integrate sustainability values into everyday school life.

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