

FORMING ENVIRONMENTALLY CARING CHARACTER AND SUSTAINABILITY AWARENESS THROUGH ADIWIYATA SCHOOLS IN MADRASAH STUDENTS

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Abstract. The global environmental crisis has highlighted the urgent need to cultivate a young generation concerned about the environment and aware of sustainability. Education, particularly through the Adiwiyata program, is a strategic means to instill these values. This study aims to assess the implementation of character education focused on environmental care and sustainability awareness among elementary madrasah students participating in the Adiwiyata school program. The researcher employed a qualitative approach using a case study method for this investigation conducted at MIM Al Tanbih. Researchers collected data through interviews, observations, and documentation. The gathered research data were then analyzed using the interactive data analysis model developed by Miles, Huberman, and Saldana. The results of this study indicate that the Adiwiyata school program effectively fosters environmental care character education among students at MI Al Tanbih. The implementation of this ecological care character education occurs in three stages: socialization, exemplary behavior, and habituation. The Adiwiyata program at MI Al Tanbih is implemented through a school policy that emphasizes environmental awareness. It involves teachers playing a crucial role in developing students' environmentally conscious character education and organizing a series of routine activities focused on caring for the environment. This program promotes cooperation, discipline, and responsibility among students regarding environmental protection. Although the Adiwiyata initiatives help raise students' awareness of sustainability, there is still a noticeable gap in their actual actions towards sustainable practices. Teachers need to regularly remind and encourage students to adopt a sustainable lifestyle.

Keywords: Character; Environmental Care; Islamic Elementary School; Sustainability Awareness.

INTRODUCTION

In today's world, environmental issues require urgent attention from the community. Climate change can lead to extreme weather events such as floods, storms, and droughts. These changes can decrease water quality, create shortages of clean water, and threaten other natural resources, all of which can greatly impact people's lives. Additionally, a lack of understanding about waste management and the consequences of plastic use can result in waste accumulation, negatively affecting the environment at home, in the community, and within schools (Rusdiyanto, 2015). Darsita demonstrated that environmental problems arise from human actions that show a lack of concern for the surrounding environment. As a result, there are signs of global warming and climate change linked to the greenhouse effect. Additionally, issues such as damage to plants, deforestation, air pollution, and a lack of clean water availability are also occurring (Martha et al., 2020). According to Ilhamiah, many environmental problems and disasters, such as floods, landslides, and pollution of water, land, and air, stem from human actions. Many individuals remain indifferent or unaware of the importance of protecting and preserving the environment. Trees are cut down, trash is discarded carelessly, and natural resources are exploited without consideration for the future consequences. The evidence indicates that these environmental issues arise from a lack of human attention and awareness regarding the need to safeguard and maintain the environment around

us.(Fathurrahman et al., 2022). Environmental issues are closely tied to human behavior, making the development of environmental character education crucial. It stands as one of the greatest challenges for educational institutions. Education can play a significant role in enhancing awareness about environmental issues and can greatly influence the success of efforts aimed at increasing this awareness.(Silvia & Tirtoni, 2023). Character education is a deliberate and structured effort designed to instill moral values and ethics, leading individuals to develop and practice positive behaviors. The aim of environmental character education is for each student to contribute to meaningful environmental changes by leveraging their understanding of the natural world and its ecosystems.(Fajar & Putra, 2021).

Character education focused on environmental awareness is crucial for students in elementary, middle, and high schools. The government, through the Ministry of Education, has encouraged schools to implement character education so that students can develop traits aligned with the values, norms, and beliefs of their communities.(Wahyudi et al., 2020). Fostering an environmentally conscious character in students is a challenging task. This character encompasses attitudes and behaviors that actively seek to prevent harm to the natural environment and to restore any damage that has occurred. Education aimed at developing an environmentally conscious character involves nurturing a sense of responsibility towards the environment as a way of expressing gratitude for the gifts that Allah SWT has provided to the universe. This approach makes learning more meaningful, allowing students to understand their connection with nature. Essentially, environmental education introduces students to the power of the Creator.(Rokhmah, 2019). A fifth-grade teacher at MI Al Tanbih mentioned, "It's similar to a hadith about cleanliness: cleanliness is part of faith." By understanding this hadith, students will learn to develop a character that values caring for the environment.(Guru Kelas V, 2024).

Another hadith snow: " Love the creatures on earth, surely the creatures in the sky will love you." (HR. At-Tirmidzi). This hadith shows that all Muslims are always encouraged to work by farming, and planting trees, this is part of the effort to maintain environmental sustainability.(Khoriyah & Muhid, 2022).

Caring for the environment involves attitudes and actions that aim to prevent harm to the natural surroundings and to restore any damage that has occurred.(Jihan Nura Sekar Manik, 2020). The indicators of environmental care character education values for first, second and third grades include the following behaviors: using the toilet for urination and defecation, helping to clean the school garden, disposing of trash properly, refraining from picking flowers, avoiding stepping on garden areas, and being responsible for maintaining cleanliness at home. For grades fourth, fifth, and sixth the indicators of environmental care character education values are as follows: participating in cleaning the school environment, cleaning toilets and trash cans, maintaining and preserving the school garden, taking part in activities to beautify the classroom and school, and ensuring overall environmental cleanliness.(Rokhmah, 2019).

To promote character education that prioritizes environmental care, the government has implemented the Adiwiyata school program. According to Regulation of the Minister of Environment of the Republic of Indonesia Number 05 of 2013, which outlines the guidelines for the implementation of the Adiwiyata Program, Adiwiyata schools are defined as institutions that foster an environmental culture and demonstrate a strong commitment to caring for the environment. The primary goal of the Adiwiyata program is to cultivate school communities that are responsible for protecting and managing the environment. This includes encouraging behaviors that contribute to the preservation of nature, ensuring that life remains sustainable for future generations. To ensure the success of character education within schools, several key elements must be integrated, including the incorporation of environmental topics into the curriculum, opportunities for self-development through daily activities, providing positive role models, and creating a supportive environment for the character education program(Fajar & Putra, 2021).

An interview with the vice principal for student affairs at MI Al Tanbih revealed that many students lack concern for their school environment. It is evident after breaks that trash is frequently scattered in front of classrooms, and leftover food often remains uneaten and littered around. Additionally, some students continue to throw their trash inappropriately. During school cleaning activities, a significant number of students show laziness and indifference towards maintaining their surroundings. This highlights a low level of environmental awareness among the students. To address this issue, MI Al Tanbih is implementing the Adiwiyata School program, aimed at fostering

a sense of environmental responsibility among students at the Regency level for the first time, specifically for schools under the Ministry of Religion of Kudus Regency (Guru Kelas V, 2024).

The Adiwiyata School Program can effectively build a green school culture. It is a comprehensive initiative that engages all school members and the community to enhance environmental awareness among students (Aini et al., 2021). In this program, all residents of the school are encouraged to participate in school activities to foster a healthy environment and mitigate negative impacts on it. One of the initiatives by the Indonesian government to raise environmental awareness is the implementation of environmental education (PLH). Environmental education aims to provide students with essential knowledge about the environment. The implementation of Adiwiyata schools involves the development of green school policies, curriculum enhancements, participatory activities, and the creation of facilities that support sustainable practices in schools (Fajar & Putra, 2021). Research by Mukani concluded that students' concern for the environment can be integrated through subjects such as fiqh lessons (Mukani & Sumarsono, 2017). The researcher aimed to determine how environmental care character education was implemented through the Adiwiyata school program at MI Al Tanbih.

RESEARCH METHOD

This study employs a qualitative approach using the case study method. The researcher investigated the implementation of the Adiwiyata school program at MI Al Tanbih, aimed at fostering an environmentally conscious character among students in the madrasah. A case study is a research model that focuses on an in-depth examination of a specific, limited system to gather detailed information about a particular issue (John W. Creswell, 2023). Researchers collected data through interviews, observations, and documentation. In this study, semi-structured interviews were employed, which involved asking several pre-prepared questions while allowing for in-depth exploration of each question with the respondents to gather detailed information. The interview was conducted with a fifth-grade teacher at MI Al Tanbih, who also served as the vice principal for student affairs. The interview lasted approximately 45 minutes and included 19 questions. This study took place during the odd semester of the 2024/2025 academic year at MI Al Tanbih. Additionally, the researchers utilized participatory observation to examine activities occurring at the school, using this observational data as a core source for their research. Documentation included activity notes, activity plans, and photographs of student activities, as well as the overall conditions and environment of the school. All gathered data were analyzed using the interactive model established by Miles, Huberman, and Saldana.

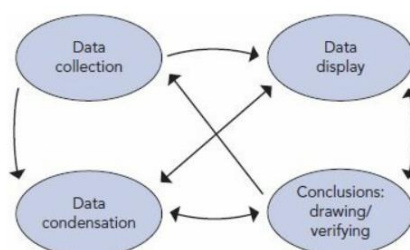


Fig. 1. shows the interactive model data analysis technique from Miles, Huberman, and Saldana. All data that has been collected is then analyzed through three stages, namely the condensation, presentation, and conclusion stages to produce appropriate data. To maintain the validity of the findings, researchers conducted data triangulation

RESULT AND ANALYSIS

students found it challenging to engage in these activities. However, over time, they became accustomed to the notion of caring for the environment, leading to the formation of this character. Environmental care activities are conducted through continuous implementation and habituation at school, which ultimately has a positive impact on the students. As students adopt these habits, they bring them home, prompting parents to recognize the importance of protecting the environment. Some parents, who were not previously engaged in environmental care activities, began to emulate the habits of their children that they learned at school. The integration of environmental care character education through the Adiwiyata school program at MI Al Tanbih is implemented in three stages: socialization, role modeling, and habituation.

Research conducted at MI Al Tanbih indicates that the Adiwiyata school program effectively fosters environmental care and character education among madrasah students. This character education is developed through socialization, role modeling, and consistent habits. The Adiwiyata program strongly encourages students to become more environmentally conscious, increasing their awareness of the importance of environmental conservation education. Through regular practice, students actively collect garbage without needing reminders whenever they encounter litter around the school. They learn to differentiate between organic waste, inorganic waste, B3 (hazardous and toxic) waste, and waste that holds economic value. Teachers emphasize that waste with economic value can be transformed into entrepreneurial skills and can be sold. Students are also taught how to flush toilets properly, conserving water in the process. They learn the importance of saving water when using the bathroom and are reminded to turn off the tap after use. Additionally, during ablution, any leftover water is utilized to water plants or fill fish ponds, maximizing water conservation. The responsible use of electrical energy is similarly emphasized. Schools display slogans encouraging water and electricity conservation throughout classrooms and common areas, reinforcing these values among students. The goal of this environmentally conscious character education is to instill these principles in students not just at school, but also at home, thereby fostering a culture of environmental awareness.

The Adiwiyata school program has been incorporated into the curriculum at MI Al Tanbih, which emphasizes an environmental perspective and care as part of its vision and mission. The teaching and learning processes at MI Al Tanbih are aligned with the principles of the Adiwiyata program and are integrated across various subjects. Environmental character education is not only integrated into general subjects like Natural Sciences and Social Sciences but also into lessons on Religion, Islamic Cultural History, and Fiqh (Islamic Jurisprudence). For instance, a fifth-grade teacher noted, "In our Islamic Cultural History classes, when using the role-playing method, students need costumes, which can be sourced from used goods." The instillation of environmental character education at MI Al Tanbih through the Adiwiyata program is achieved through socialization, role modeling, and the establishment of habitual practices

1.1 Implementation of the Adiwiyata Program at MI Al Tanbih Environmentally Conscious School Policy

MI Al Tanbih was appointed by the Ministry of Environment and Forestry to implement the Adiwiyata school program starting in 2019. However, due to the pandemic, the observation of the Adiwiyata school was only conducted in 2022. MI Al Tanbih is one of the first madrasahs to implement the Adiwiyata school program among institutions under the Ministry of Religion in Kudus Regency. As a result, MI Al Tanbih received the Adiwiyata school award at the district level in 2022 and is set to advance to the provincial level in 2024. According to an interview with a Class V teacher at MI Al Tanbih, the madrasah often coordinated with the environmental service to prepare for the Adiwiyata school program before obtaining the Adiwiyata school certificate. The school was then required to submit an application along with a letter of commitment to carry out environmental management. "The implementation of environmental management is conducted comprehensively, covering aspects of teaching, learning, educational tools, and curriculum adjustments to align with the goals of the Adiwiyata school, which emphasizes environmental awareness. Additionally, the activities of teachers, school staff, and students must be oriented towards themes of environmental preservation," said the Class V teacher (Guru Kelas V, 2024)

The school curriculum at MI Al Tanbih includes a clear vision and mission focused on environmental education and awareness. To foster an environmental character among students, the school promotes socialization efforts involving both students and parents. This initiative is part of a collaboration aimed at developing students' environmental consciousness and working towards achieving the Adiwiyata school award. The school's vision and mission serve as indicators for implementing the Adiwiyata program, and the learning plans must integrate principles of environmental education. The vision and mission are displayed in each classroom, and teachers actively work to help students understand their significance, providing practical examples for application. Research conducted by Dinda Salsa indicates that the Adiwiyata program at this school has been effectively implemented. For instance, the school has established all necessary facilities and infrastructure to support the Adiwiyata program, enhancing the understanding of all stakeholders regarding its purpose. Evidence of a caring attitude towards the environment is reflected in both classroom learning and outdoor activities (Meika R & Putra, 2021).

1.1.1 Exemplary Role of Teachers in Forming Environmentally Concerned Character Education

Exemplary behavior is demonstrated by the principal, teachers, staff, and school guards at MI Al Tanbih. The conduct of the teachers serves as a model that encourages good habits among students. All teachers and staff are always dressed cleanly and neatly. In their daily activities, teachers follow a picket schedule to ensure the cleanliness of the teacher's office and the surrounding environment. They can often be seen sweeping and mopping the floors in the teacher's room. Every day, teachers bring their own food and drinks in reusable containers and tumblers, minimizing plastic use to reduce waste in the environment. The school has implemented a program that encourages students to bring food from home. Parents are informed about the importance of providing food and drink supplies that are not packaged in instant or plastic materials. According to a fifth-grade teacher, approximately 75% of the 500 students at MI Al Tanbih have begun participating in this program. Teachers also model proper waste disposal by ensuring that garbage is thrown away in the correct bins. The trash bins at the school are made from large barrels that were previously used for paint. These bins are labeled with different colors and stickers to indicate whether they are for organic waste, inorganic waste, or hazardous materials (B3). Furthermore, the cooking staff exemplifies responsible water usage by washing utensils wisely and without excess. This exemplary behavior is aimed at fostering environmentally conscious attitudes and character education among students.

1.1.2 Implementation of Environmentally Based Curriculum

In implementing the Adiwiyata school program, it is essential that both the curriculum and classroom teaching reflect environmental awareness. During the planning stage, teachers create learning implementation plans that incorporate materials related to environmental awareness. These plans are developed in alignment with specific indicators and basic competencies. The learning objectives are also connected to themes of environmental consciousness. To easily identify the content related to the environment, teachers highlight the relevant sections of the learning implementation plans in yellow. This way, it is clear which materials incorporate environmental topics.

The Adiwiyata program at MI Al Tanbih is incorporated into all subjects, promoting environmental awareness throughout the curriculum. According to a fifth-grade teacher, this integration occurs not only in general subjects but also in religious studies. Teachers employ various teaching methods tailored to environmentally conscious learning objectives, including question-and-answer sessions, inquiry-based activities, lectures, discovery learning, problem-based learning, project-based learning, observations, interviews, assignments, and role-playing. The materials used in these activities are diverse. For example, students create pencil cases from used bottles, planting media or pots from old gallons, and bags or displays from recycled plastic packaging. Research conducted by Reja Fahlevi indicates that the character of caring for the river environment has been successfully integrated into the Adiwiyata program. This successful integration is supported by the school's vision, mission, and goals that emphasize the river environment, along with an integrated curriculum that relates to environmental topics across all subjects. Furthermore, extracurricular activities, particularly scouting, play a crucial role in enhancing this environmental focus (Fahlevi et al., 2020).

1.1.3 Implementation of Routine Activities Based on Environmental Care

MI Al Tanbih has established routine habits to support the Adiwiyata school program, which focuses on developing an environmental care character. One of these initiatives is the SABER (Clean

Saturday) program. This program takes place biweekly on Saturdays and involves all students. During this activity, students collaborate to clean the school environment, including classrooms, tidying up and watering plants, and cleaning restrooms. They work together, fostering teamwork and cooperation throughout the process.

The second program is called SIKAMARU (Clean Bathroom and Urinal). This activity is conducted once a week and focuses on maintaining the cleanliness of the bathrooms. The main goals are to prevent the accumulation of mosquito larvae and to eliminate unpleasant odors. During this program, students learn how to properly flush the toilet after use and how to utilize water efficiently to avoid waste. Teachers emphasize the importance of conserving water and turning off the tap after use. They also remind students to close the tap completely, as it is common for people to forget to do so. Additionally, students are instructed to keep the cleaning bucket clean and to store it upside down to prevent it from becoming a breeding ground for mosquitoes. The school hopes that by instilling these habits, students will practice them at home and in public facilities as well.

The third activity is SiTK (Cleaning the Class Terrace), which takes place every day after recess. Typically, a lot of trash is scattered in front of the classroom after this break. When the bell rings, students work together to clean the classroom terrace before entering for lessons. Students no longer hesitate to help clean the classroom environment, as they understand the importance of keeping it tidy.

1.2 Environmentally Concerned Character of MI Al Tanbih Students Maintaining the Classroom and School Environment)

Maintaining a clean school environment is an important habit fostered through class duties. All students participate in these duty activities, which involve tasks such as sweeping the floor, properly disposing of trash, and wiping the blackboard after use. In addition to class duties, students are encouraged to develop other good habits. For example, they should wash their hands before eating, use water wisely in the restroom, and practice proper ablution techniques. Importantly, any leftover water from ablution should not be discarded; instead, it can be used to water plants or filled into water pools, which helps conserve clean water. Students at MI Al Tanbih are also mindful of saving electricity. Teachers remind them to turn off lights when they are not needed. On bright, clear days, students should ensure that classroom lights are turned off. To reinforce this message, energy-saving slogans, such as "Turn me off when you're done using me," are displayed near power outlets throughout the classroom to serve as reminders.

1.2.1 Cooperation

The activity was observed during the routine cleaning efforts by all students, teachers, principals, and staff at MI Al Tanbih, as part of SABER, SIKAMARU, and SITK initiatives. Additionally, the creation of biopore holes around the school was also carried out. Students worked collaboratively with teachers to create several biopore holes, which were designed to absorb rainwater and facilitate composting.

1.2.2 Discipline

Disciplined behavior is observed when students properly dispose of their trash according to its category. They can distinguish between organic waste, inorganic waste, and hazardous waste (B3 waste). Each type of waste bin is clearly color-coded and labeled with stickers indicating the type of trash, helping students remember where to throw their waste. Additionally, students are organized when it comes to washing their eating utensils. MI Al Tanbih does not provide a canteen; instead, snacks are prepared by the school for students during breaks. They approach this in an orderly and disciplined manner, without fighting over food. Students make sure to finish all the food they take and do not leave any leftovers. After eating, they wash their own utensils.

1.2.3 Responsibility

A responsible attitude is evident in how students fulfill their classroom duties and participate in SITK program activities. They consistently ensure that their classroom environment is clean, allowing them to study peacefully. When they see litter, students promptly pick it up without needing to ask one another, and they dispose of it in the trash.

Research conducted by Tri Nur Wahyudi reveals that the implementation of the Adiwiyata program at MIM Potronayan 2 has resulted in significant changes. Students who previously did not understand the importance of environmental conservation have become more knowledgeable and aware of the need to care for their surroundings. This is evident in the enthusiasm displayed by students in tending to the plants they have cultivated and their newfound commitment to disposing of trash properly. (Wahyudi et al., 2020).

1.3 Supporting Factors and Inhibiting Factors in the Implementation of Environmentally Caring Character

The successful implementation of environmental character education relies on the support of teachers, principals, and parents. Teachers and school staff consistently encourage students to care for the environment through a variety of activities. For example, they teach students to bring food supplies in lunch boxes and reusable drinking bottles instead of using disposable cups. Students are also encouraged to use recycled paper as envelopes and to wash dishes after meals. The principal plays a key role by promoting the importance of environmental protection and actively participating in school and classroom cleaning activities. Parental support is another crucial factor. A fifth-grade teacher noted that parents consistently back Adiwiyata activities and the development of environmentally friendly habits. During school greening events, parents often come to help plant trees and some even donate plant seeds to support these initiatives.

The inhibiting factors primarily stem from students and a small number of parents. In the early stages of implementing environmental character education, students find it challenging to adapt and participate in activities aimed at protecting the environment. Many students are not yet accustomed to following the programs initiated by the school, and some often forget to adopt clean, healthy, and environmentally conscious lifestyle habits. Additionally, a small portion of parents does not fully support the initiative to require students to bring supplies from home, such as reusable lunch boxes and drinking bottles. This lack of support can be attributed to busy parents who may find it difficult to prepare meals with their own cutlery. As a result, some parents continue to provide food in the form of instant packaged items, which contribute to significant waste.

To address the various challenges in developing environmentally conscious character education among students, schools are implementing several improvements. These include the introduction of a system of rewards and consequences for students who do not adhere to standards of order and those who misbehave. Rewards consist of cleanliness certificates and small, meaningful gifts that motivate students. On the other hand, the consequences focus on constructive punishment. For instance, students may be asked to memorize short verses from Juz 30, especially from the chapters An-Naba, An-Nazi'at, and Abasa. If certain students remain unresponsive to these measures, they are required to clean the classroom independently while their peers refrain from assisting them during the SiTK and SIKAMARU activities. This approach serves as a deterrent and encourages students to make a concerted effort to protect the environment. Additionally, the school employs a persuasive communication strategy to engage parents, encouraging them to support the initiative by providing their children with reusable cutlery and drinking bottles from home.

CONCLUSION

The Adiwiyata school program, implemented by MI Al Tanbih, effectively fosters environmentally conscious characters among students. This program is integrated into all learning activities, aligning with the curriculum and covering all subjects. Every activity conducted by students at MI Al Tanbih emphasizes environmental awareness. The development of environmentally conscious characters occurs through socialization, role modeling, and the establishment of positive habits. The Adiwiyata

program at MI Al Tanbih is supported by environmentally friendly school policies, the active involvement of teachers in character education, and a range of routine activities focused on environmental care. As a result, several environmentally caring traits have emerged among MI Al Tanbih students, including an emphasis on maintaining the classroom and school environment, cooperation, discipline, and responsibility. However, there are both supporting and inhibiting factors in the development of these characteristics. Supporting factors include the involvement of teachers, the principal, school staff, and parents. On the other hand, inhibiting factors mainly stem from some students and, to a lesser extent, from parents. To further promote environmentally caring behaviors in students, the school has implemented a system of rewards and sanctions. The findings of this study can serve as a reference for fostering environmentally caring characters in elementary school students. However, it is important to note that this research is limited, as it was conducted with only one fifth-grade teacher. Future researchers are encouraged to create observation instruments and questionnaires for each student to gain a more comprehensive and specific understanding of student character development.

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