

Increasing Student Awareness of the School Environment Through the Adiwiyata Program

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ABSTRACT

Purpose of the study: This study aims to assess the extent to which the Adiwiyata Program has increased student awareness of cleanliness, sustainability, and environmental management through various activities involving the entire madrasa community.

Methodology: This research employed qualitative methods with a case study design. Data collection involved field observations, interviews with madrasah principals, teachers, Adiwiyata administrators, and students, as well as documentation. Data analysis followed the Miles and Huberman model, which includes data reduction, data presentation, and drawing conclusions.

Main Findings: The Adiwiyata program improves students' hygiene habits, waste sorting, plant care, and the implementation of the 7K culture. Teachers and students actively participate in green house activities, waste management, and crafting from used materials. Key challenges include low discipline among elementary school-aged students, a lack of sanitation facilities, and a lack of hygiene habits at home. Solutions are implemented through group guidance, additional self-development hours, and financial support.

Novelty/Originality of this study: This study provides a detailed overview of the process of developing environmental awareness in elementary school students through a consistent, sustainable program involving the entire school community. The findings illuminate the real challenges at the early childhood level and offer implementation strategies that can serve as models for other schools to strengthen Adiwiyata-based environmental education.

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1. INTRODUCTION

The school environment is a crucial space in the learning process, serving not only as a place for the transfer of knowledge but also as a platform for character development in students [1], [2]. One aspect of character that must be developed from an early age is environmental awareness [3], [4]. Environmental awareness in students forms the foundation for sustainable, environmentally friendly behavior [5], [6]. However, in practice, student concern for the cleanliness and sustainability of the school environment remains low, necessitating educational programs that foster active student participation.

Environmental problems occurring in schools, such as a low level of waste disposal, insufficient use of resources wisely, and a limited understanding of environmental preservation, demonstrate that environmental education is still suboptimal [7], [8]. This has the potential to degrade the quality of the learning environment,

which should be clean, healthy, and supportive of the learning process [9], [10]. Therefore, schools need to adopt comprehensive and targeted programs to systematically foster environmental awareness.

The Adiwiyata Program is one of the government's efforts to increase environmental awareness in schools [11], [12]. This program emphasizes the importance of integrated environmental education in all school activities [13], [14]. Through Adiwiyata, schools are expected to develop a school community with an environmental culture and the ability to manage the environment sustainably [15], [16]. Thus, this program is not only a cleanliness movement, but also a process of forming a character that cares about the environment as a whole.

The implementation of the Adiwiyata Program includes curriculum strengthening, teacher capacity building, development of environmentally-based activities, and instilling environmentally friendly behaviors in students' daily lives [17], [18]. Through various activities such as waste sorting, reforestation, water conservation, and energy management, students are actively involved and gradually begin to understand the importance of environmental protection [19], [20]. This direct involvement plays a significant role in shaping consistent attitudes and behaviors.

Various studies have shown that participatory environmental education programs like Adiwiyata can increase students' awareness, knowledge, and ability to protect the environment [21], [22]. However, the success of this program is greatly influenced by its implementation on the ground, including school support, teacher participation, and student motivation [23], [24]. In some cases, Adiwiyata is implemented merely as an administrative requirement without significantly impacting student behavior.

Therefore, it is crucial to conduct a study on the effectiveness of the Adiwiyata Program in increasing environmental awareness among students. Measuring student awareness levels is a key indicator of the program's tangible impact and whether the activities align with its goal of fostering environmentally conscious character [25], [26]. Furthermore, this study can identify factors that support and hinder program implementation in schools. Based on this background, this study aims to analyze the increase in students' awareness of the school environment through the implementation of the Adiwiyata Program. The results are expected to contribute to the development of more effective environmental education strategies, serve as a reference for schools in improving the quality of Adiwiyata implementation, and support the realization of a clean, healthy, and sustainable school environment. This study aims to assess the extent to which the Adiwiyata Program has increased student awareness of cleanliness, sustainability, and environmental management through various activities involving the entire madrasa community.

2. RESEARCH METHOD

2.1. Research Approach and Type

This research uses qualitative methods, which aim to deeply explore the uniqueness of individuals, groups, communities, or organizations in their daily lives [27], [28]. This approach is designed to produce a comprehensive picture of the speech, writing, or behavior observed by research subjects within a specific context. All these aspects are examined comprehensively and integrated to provide a more complete understanding of the phenomenon being studied [29], [30].

In this field research, the researcher employed a case study research method. This approach is used to provide comprehensive descriptions and explanations of various aspects related to a particular individual, group, organization, program, or social situation. Through case studies, the researcher seeks to collect and analyze as much information as possible relevant to the research subjects to achieve a deeper understanding of the phenomenon being studied.

2.2. Data Collection Techniques

Data collection techniques are a crucial component of research because they serve as the primary strategy for obtaining the required information [31], [32]. The success of the research is greatly influenced by the accuracy of the methods used. In this study, data were collected through observation, interviews, and documentation. Observations were conducted to directly observe the behavior, situation, and implementation of the Adiwiyata program at the Bogem Sampung State Islamic Elementary School in Ponorogo. Through this method, researchers obtained a concrete picture of the program's implementation and efforts to increase students' environmental awareness, including obstacles and solutions implemented in the field. Interviews were used as an information-gathering technique through directed conversations between researchers and informants, such as the principal, Adiwiyata administrators, teachers, and students [33], [34]. These interviews aimed to construct an understanding of the informants' experiences, activities, motivations, and perspectives regarding the implementation of the Adiwiyata program, while also verifying and enriching the findings through data triangulation. Furthermore, documentation was used to collect relevant written or archival data to obtain complete and valid information. Documentary data served as a complement to primary data from observations and interviews, resulting in a more comprehensive analysis.

2.3. Data Analysis Techniques

Data analysis in qualitative research is conducted continuously, both during the data collection process and after all data has been collected within a specified timeframe [35], [36]. During the interviews, researchers begin analyzing the informants' responses. If the answers are deemed unclear or do not meet the information needs, researchers will continue questioning until sufficient and reliable data are obtained. According to Miles and Huberman, qualitative data analysis is an interactive and ongoing process until data saturation is reached [37], [38].

The qualitative data analysis process involves several stages. First, data reduction, which is the process of selecting, focusing, simplifying, and organizing the vast amount of raw data [39], [40]. The longer the researcher is in the field, the more complex the data obtained, so data reduction is necessary to sharpen the research focus. The data reduced in this study covers the history of Bogem Sampung Ponorogo State Elementary School, the challenges in raising student environmental awareness through the Adiwiyata program, and the solutions implemented by teachers to overcome these obstacles.

The second stage is data presentation (data display). After data reduction, the information is then organized into an easily understood format to facilitate researchers in identifying patterns and relationships between categories. Data presentation in qualitative research can take the form of narrative descriptions, charts, or models of relationships between variables [41], [42]. Miles and Huberman emphasize that the most commonly used form of presentation is narrative text, which describes the findings descriptively.

The third stage is drawing conclusions and verifying them. Initially, conclusions are tentative and subject to change if not supported by strong additional data during subsequent data collection stages [43], [44]. However, if the conclusions reached are subsequently supported by valid, consistent, and relevant evidence during the verification process, they can be declared credible and accountable.

2.4. Research Procedures

The research procedure was carried out systematically to ensure the validity and depth of the qualitative data obtained [45], [46]. This study followed several interconnected stages, beginning from the preparation phase to the conclusion drawing stage.

The first stage was the preliminary study and research preparation. At this stage, the researcher conducted a literature review related to qualitative research, case study methods, and the Adiwiyata program to formulate the research focus and guiding questions. In addition, the researcher prepared research instruments such as observation guidelines, interview protocols, and documentation checklists, as well as obtained research permits from the relevant institutions [47], [48].

The second stage was field data collection. Data were collected directly at Bogem Sampung State Islamic Elementary School in Ponorogo through observations, interviews, and documentation. Observations were conducted to examine the real conditions of the school environment and the implementation of the Adiwiyata program [11], [49]. Interviews were carried out with key informants, including the principal, Adiwiyata program administrators, teachers, and students, to explore their experiences, roles, and perceptions regarding environmental awareness activities [26], [50]. Documentation was used to collect supporting data such as school profiles, program reports, photos, and official documents related to the Adiwiyata program.

The third stage was data analysis, which was conducted concurrently with data collection. The researcher analyzed data using the Miles and Huberman interactive model, which consists of data reduction, data display, and conclusion drawing and verification [51], [52]. During data reduction, irrelevant or overlapping data were filtered to focus on essential information. The reduced data were then presented in the form of narrative descriptions and thematic categorizations to facilitate interpretation. Finally, conclusions were drawn and continuously verified through data triangulation and repeated reference to field findings.

The final stage was drawing conclusions and reporting the results. At this stage, the verified findings were compiled into a comprehensive explanation of the implementation of the Adiwiyata program and its role in enhancing students' environmental awareness. The conclusions were formulated based on credible and consistent evidence and presented in a structured research report.

3. RESULTS AND DISCUSSION

3.1. Background Analysis of the Adiwiyata program at the State Elementary Madrasah Bogem Sampung Ponorogo

The background to the emergence of the Adiwiyata program at the Bogem State Elementary School when the potential for a large amount of waste was discovered within the school environment, particularly in the landfill area. This waste consisted of accumulated organic and inorganic waste, thus giving rise to the idea of the school to start managing waste to prevent it from increasing and causing environmental problems [53], [54]. The

initial step taken was to provide separate trash bins to separate organic and inorganic waste. As conveyed by Mr. Baihaqi, a teacher and person in charge of the Adiwiyata program at the Bogem State Elementary School:

"Initially, we observed that there was a lot of potential waste in the landfill, which if left alone would only pile up. This gave rise to the idea of processing the waste in a simple way, namely by getting the Madrasah used to sorting waste first."

The waste management initiative was implemented several months later with the full support of the teachers. Waste sorting activities were carried out routinely according to the initial plan and received a positive response from students, who began to practice differentiating organic and inorganic waste in their daily activities at the madrasah. This waste management involved the entire madrasah community, where organic waste was processed into compost, while inorganic waste was reused as materials for making handicrafts. As conveyed by Mr. W, the Head of the Madrasah:

"The idea of waste processing was implemented several months later, which was also supported by the teachers, and then the waste sorting according to the initial idea continued, the students were also enthusiastic in this matter by getting used to sorting waste between organic and inorganic. Waste processing involved all students, the organic was made into compost and the inorganic was made into handicrafts from used goods. That was the beginning of our activities, besides inviting students to positive activities, it will also shape the character of students in the future, even though it had not received an award, or an assessment from the Ministry of Environment, we continued to do this positive thing. So now we have received an award, because the results we get are like a bonus that prioritizes the process."

These waste management activities serve as the foundation for various other environmental conservation-oriented activities. In addition to fostering positive habits among students, these activities also play a role in shaping their character, encouraging them to care for the environment from an early age. Although they did not receive any awards or assessments from the Ministry of Environment in the initial stages, the madrasah consistently implemented this program, prioritizing the process of environmental development over the results or awards received. Over time, Madrasah Ibtidaiyah Negeri Bogem finally received the award, further strengthening its commitment to continuing and developing the Adiwiyata program as an effort to protect and preserve the madrasah's environment.

3.2. Analysis of the Implementation of the Adiwiyata Program at the State Elementary School of Bogem Sampung, Ponorogo

Adiwiyata is understood as an ideal and valuable place where students can acquire various knowledge, norms, and ethics that serve as a foundation for realizing well-being and sustainable development goals [55], [56]. Based on interviews with madrasah principals, the term Adiwiyata is derived from the word "Adi," meaning "great, noble, great, tough, and strong," and the word "Wiyata," meaning "place or container." Thus, Adiwiyata is interpreted as a place of nobility, strength, and high value. This concept emphasizes not only the beauty and cleanliness of the school environment but also how to make the school environment a dignified and meaningful space for the development of student character. Adiwiyata is not just a competition, but a concrete program to protect the environment and natural conditions by prioritizing sustainable habitation.

The implementation of the Adiwiyata program at the Bogem Sampung State Islamic Elementary School in Ponorogo is realized through various school environmental management activities. The school formed a special team consisting of teachers to carry out various tasks, such as waste management, green club activities, and making handicrafts from unused items using the concept of reduce, reuse, and recycle. In these activities, the teachers acted as motivators and facilitators, encouraging student creativity, thus orienting the activities towards increasing the younger generation's awareness of the environment. This was conveyed by Mr. W, the Head of the School:

"Adiwiyata comes from the words Adi and Wiyata. Adi means big, noble, great, tough and strong, while Wiyata is a place. So the meaning of Adiwiyata is a noble place, a big place, a strong place. In accordance with the planned objectives, the cultivation of student character. Adiwiyata is not only focused on the beauty and cleanliness of the environment but we package the place into a noble place. Adiwiyata is not a competition but a program to save the environment and current natural conditions by prioritizing the Adiwiyata program to save the environment to create a great and noble place."

Adiwiyata Schools are educational institutions that demonstrate concern and responsibility for environmental sustainability. The ideal school environment is one filled with well-maintained plants and trees,

serving as a natural laboratory for students. Facilities such as chairs and desks are placed in open areas under trees to support independent learning and enhance student interaction with the environment. A cool and beautiful school environment creates a more comfortable atmosphere for students compared to arid, hot, and poorly maintained environments. Therefore, all school facility development should be based on environmentally friendly principles.

Various activities can be undertaken to support the creation of environmentally conscious schools. Some of these include establishing medicinal plant gardens at schools, providing waste disposal facilities, providing separate waste bins, and organizing environmentally-based extracurricular activities such as nature conservation groups. Furthermore, schools implement regulations on cleanliness and environmental sustainability and organize cleanliness-focused movements to raise student awareness of the importance of preserving the school environment. The Adiwiyata program at Bogem State Islamic Elementary School is implemented consistently and involves the entire school community, from the principal, teachers, students, and parents. Students are encouraged to actively participate in environmental activities, such as tree planting, managing family medicinal plants, and sorting organic and inorganic waste. Student involvement in these activities aims to foster a sense of responsibility and concern for the environment from an early age.

The Adiwiyata program is implemented based on two main principles: participatory and sustainable. Participatory means that all school members must be involved in the planning, implementation, and evaluation of activities according to their respective roles. The sustainable principle implies that all programs must be implemented in a planned, continuous, and mutually supportive manner to create comprehensive change. At Bogem State Islamic Elementary School, program implementation begins with planning and outreach to students, parents, and all relevant parties. This outreach includes an introduction to the Adiwiyata concept, program objectives, and planned activities. Afterward, the madrasah developed a plan for activities such as weekly community service, routine cleaning after each ceremony, and fostering the habit of waste sorting. This was conveyed by Mr. W, the Head of the Madrasah:

"The first step is to plan in advance, namely by conducting outreach to students, stakeholders, and parents. Starting from the understanding, objectives, and guidance of the Adiwiyata program. After that, designing a program that can be implemented and conceptualized, starting from implementing clean Saturdays, ant operations, introduction to waste management that has been separated into organic and inorganic. And socializing with parents of students in the form of concern for their children by introducing that culture at home."

The primary objective of the Adiwiyata program is to develop a school community that is responsible for environmental protection and management through good school governance. This program is part of the Ministry of Environment's efforts to raise awareness and knowledge among school communities regarding the importance of environmental sustainability. It is expected that all school members will actively participate in creating a healthy environment free from the negative impacts of environmental damage, thus creating safe, clean, and comfortable schools for all students.

The components and standards of the Adiwiyata program encompass several important aspects. First, environmentally conscious school policies. This component encompasses several standards, including the development of school policies that support environmental protection and management efforts, the implementation of rules and regulations that encourage environmentally friendly behavior, and the development of school programs aimed at improving the quality of environmental protection and management. These policies are expected to serve as guidelines for all school members in consistently implementing a culture of environmental care.

The second component is the implementation of an environmentally-based curriculum. This component includes the standard that schools must integrate environmental materials into their learning. The curriculum is structured in such a way that environmental protection and management efforts are integrated into relevant subjects. Educators are also expected to be competent in developing environmentally-themed learning activities, so that students can actively engage in the learning process that fosters environmental awareness.

Furthermore, students should be given opportunities to engage in various learning activities related to environmental protection and management. Examples can be found in various subjects. In second-grade Natural Science, students learn about energy sources commonly encountered in everyday life and their uses. In first-grade thematic learning, students study the topic of objects, animals, and plants in their surroundings, discuss rules for plant care, and practice proper plant care. Meanwhile, in fourth-grade thematic learning, students learn the sub-theme of the living environment, which includes indicators such as explaining the obligation to maintain environmental cleanliness, describing steps for maintaining cleanliness, and making crafts such as flower vases from recycled materials.

At Madrasah Ibtidaiyah Negeri Bogem, the Adiwiyata-based curriculum is developed by integrating environmental awareness values into the existing curriculum. The curriculum structure remains unchanged, but

the school adds specific materials and activities related to the environment. These additions are made to relevant learning aspects so that students gain firsthand experience in maintaining a clean and sustainable school environment. In this way, the school curriculum adheres to applicable regulations but is enriched with Adiwiyata values to strengthen the development of environmentally conscious character.

3.3. Analysis of Students' Awareness of the School Environment at Bogem State Elementary School

Etymologically, awareness refers to a state of awareness, understanding, and comprehension of something. Awareness often arises from an experience, for example, when someone begins to realize their self-worth after feeling unfairly treated. In this context, awareness relates to a person's inner experience of their own situation and their environment.

Terminologically, awareness can be understood as the emergence of an individual's ability to know, understand, and act upon a situation in accordance with the activities undertaken to achieve a specific goal. Awareness is also defined as a person's alertness to various events in their environment, including cognitive processes such as memories, thoughts, feelings, and physical sensations. A crucial element influencing the formation of self-awareness in an individual is the spiritual aspect.

Several experts have provided definitions of self-awareness. Antonius Atosokhi Gea explains that self-awareness is a person's ability to understand their uniqueness, both physically and psychologically, including their character, personality, and natural talents. A person with self-awareness is able to clearly recognize their strengths and weaknesses. Soemarno Soedarsono added that self-awareness is a form of one's identity reflected through attitudes, behavior, perspectives, life values, and the ability to create and work.

Joseph Murphy defines self-awareness as a state in which a person is fully aware of their behavior and actions. Awareness guides individuals in choosing the most appropriate course of action, such as distinguishing between good and bad, or beneficial and harmful. Thus, self-awareness plays a crucial role in guiding individuals to act wisely. This is to provide students with experiences that are more impactful and can be channeled into the community in which they live, as conveyed by Mr. W, the Principal of the Madrasah:

"Forming a special team to implement the Adiwiyata program itself. This involves teachers in working groups such as waste recycling, green clubs whose duties include caring for, managing, and arranging plants, collecting used goods to be made into 3R handicrafts (reduce, reuse, recycle). Here, teachers act as motivators, facilitators, and provide encouragement to students to be creative, so this activity is student-oriented, with the aim of prioritizing the next generation so that students become active. To provide experiences to students so that they are more relevant to themselves and can be channeled to the community where they live."

"Increasing students' awareness of the school environment is one of the goals of the madrasah to maximize concern for the environment, such as cultivating the 7K (cleanliness, beauty, comfort, order, shade, health, and safety) in each class, each of which has a person in charge."

Interview results indicate that the Adiwiyata program plays a significant role in building student awareness of the school environment. This program aims to foster student concern for cleanliness, beauty, order, comfort, shade, health, and safety. Each class has a group responsible for maintaining the condition of the environment. Through routine activities, students develop a caring attitude and are able to distinguish between good and bad behavior for their environment.

Self-awareness is influenced by several factors. Soemarno Soedarsono stated that the formation of self-awareness includes value systems such as conscience, self-esteem, and piety; perspectives such as a spirit of togetherness and intelligence; and behaviors such as politeness, friendliness, resilience, and tenacity. At Madrasah Ibtidaiyah Negeri Bogem, environmental awareness is fostered through daily duty, community service every Saturday, and ant operations every Monday after the flag ceremony. These routines help instill positive habits that align with the school's environmentally conscious culture.

Self-awareness can also be hindered by certain factors. A person's mental state can be assessed by their attitudes and behavior. If someone exhibits unhealthy behavior or behavior that is inconsistent with good values, it indicates an underdeveloped self-awareness. Factors inhibiting self-awareness usually stem from negative traits such as anger, resentment, envy, arrogance, showing off, lying, and greed. These traits can interfere with a person's ability to understand themselves and act in accordance with good values.

One factor influencing low environmental awareness is ignorance. Ignorance can occur because someone genuinely doesn't understand the importance of protecting the environment, or knows but pretends not to. When someone pretends to be ignorant, it becomes more difficult to change because this pretense can develop into an ingrained habit in daily behavior. The longer this attitude persists, the stronger its influence in inhibiting a person's ability to care for their environment.

The next factor is humanity, which relates to basic human nature. Chiras explains that humans are part of nature and have a tendency to regulate or control it. As biological beings, humans have a drive to control and possess everything for themselves and their descendants. This greedy nature has the potential to hinder the development of environmental awareness because individuals tend to put personal interests above environmental sustainability. Furthermore, a lack of role models from leaders or those in higher positions can also weaken environmental awareness. If superiors or leaders fail to demonstrate environmental awareness, subordinates may imitate that behavior, thus preventing a culture of concern from developing.

Another factor influencing environmental awareness is lifestyle. The rapid development of information technology makes people easily influenced by modern lifestyles. Some of these lifestyles actually encourage environmentally damaging behavior. One example is a hedonistic lifestyle, which is the tendency to pursue pleasure, luxury, and debauchery without considering the impact on nature. Furthermore, materialistic, consumerist, and individualistic lifestyles also contribute to environmental damage by encouraging people to continue to consume resources excessively.

A lifestyle that relies on or imitates the behavior of superiors also influences environmental awareness. When superiors set a good example in protecting the environment, this lifestyle can have a positive impact because subordinates emulate these positive behaviors. However, if superiors exhibit wasteful lifestyles, disregard for the environment, or frequently throw excessive parties, subordinates have the potential to imitate these behaviors, exacerbating the low level of environmental awareness in their social environment.

The environment has a significant influence on the teaching and learning process, including the family, school, and community environments. In this context, students at the State Islamic Elementary School of Bogem are also directly involved in fostering self-awareness of the school environment. This involvement is realized through various activities related to environmental protection and management, such as managing a green house, planting various types of trees on the madrasah grounds, cultivating family medicinal plants, and utilizing waste to create handicrafts based on the principles of reduce, reuse, and recycle.

Teachers at Madrasah Ibtidaiyah Negeri Bogem play a crucial role in implementing the Adiwiyata Program, serving as those responsible for developing students' character, fostering awareness and concern for the school environment. This effort is carried out through fostering positive behaviors, such as disposing of waste according to its type, caring for and nurturing plants in the madrasah grounds, and maintaining classroom cleanliness.

Based on observations, not all students demonstrate awareness of environmental cleanliness, especially in the lower grades. Classrooms are often found to be dirty because students tend to neglect cleanliness and focus more on playing. Consequently, teachers must clean the classrooms before learning begins. This situation is one of the obstacles in fostering environmental awareness in students, because their age development does not yet allow them to fully understand and apply the principles of environmental concern as can be done by students at the Madrasah Tsanawiyah and Madrasah Aliyah levels.

3.4. Analysis of Obstacles and Solutions to the Implementation of the Adiwiyata Program at the State Elementary Madrasah Bogem Sampung Ponorogo

During the implementation of the Adiwiyata Program at the Bogem Sampung Ponorogo State Elementary School, several obstacles were identified that require attention. The first obstacle relates to the low level of self-care behavior. Students still lack awareness of healthy lifestyles, such as choosing nutritious foods, and their level of concern for the condition of their home environment is also low. As stated by Mr. W, the head of the school:

"Obstacles faced in the implementation of the Adiwiyata program include the low level of implementation of self-care programs, inadequate infrastructure and cleaning tools, lack of attention from students themselves in choosing healthy food, caring for the environment, and lack of self-application in the home environment."

The solution to overcome these obstacles was to invite students to discuss the importance of maintaining cleanliness and environmental sustainability, both at school and at home, after morning assembly. The school also added a special time for self-development activities, so that teachers could explain the importance of protecting the environment not only through formal subjects, but also through storytelling methods to foster awareness within students. As conveyed by Mr. W, the Head of the School:

"After the morning assembly, students were invited to talk about the importance of maintaining the school environment, adding a special lesson hour, namely student self-development, so the teacher explained to students about the importance of maintaining the environment not only in the subject, but also using the storytelling method so that it could touch or affect the students so that they are aware that maintaining environmental cleanliness is important."

The second obstacle is the need for specific strategies from stakeholders to foster environmental awareness in students, given that elementary school students are more difficult to guide than those at higher levels. Parties involved in implementing the Adiwiyata Program include the Madrasah Principal, program administrators, and teachers.

The solution implemented to address this challenge is to conduct group guidance to encourage students to actively participate in school environmental management activities, such as caring for plants, sorting waste, and adopting a clean and healthy lifestyle. Madrasahs also form special teams focused on Adiwiyata activities, involving teachers in working groups on areas such as waste management, green house activities, and managing used materials for handicrafts through the principles of reduction, reuse, and recycling. In this regard, teachers act as motivators, facilitators, and advocates for students to be more creative and oriented towards developing an environmentally conscious generation. As stated by Mr. Baihaqi, a teacher and administrator of the Adiwiyata Program at the Bogem State Islamic Elementary School:

"Teachers provide guidance using a group system to encourage students to participate in managing the school environment, such as caring for plants, sorting waste, and living clean and healthy."

Another obstacle is limited funding to meet the needs of supporting facilities and infrastructure, such as cleaning supplies. Efforts to overcome this obstacle include utilizing funding assistance from the Ministry of Religious Affairs to provide the necessary facilities and infrastructure, enabling the Adiwiyata Program to run more optimally.

"Lack of funds to provide adequate infrastructure such as cleaning equipment, handling of students is still low, and requires extra strategies from stakeholders, special handling or special strategies to raise students' awareness because MI age is still difficult compared to students of Madrasah Tsanawiyah and Madrasah Aliyah age."

The solution to the problem of a lack of cleaning equipment is to use aid funds from the Ministry of Religion to purchase infrastructure such as cleaning equipment to support the implementation of this environmentally conscious school.

"The Madrasah received financial assistance from the Ministry of Religion to purchase infrastructure such as cleaning equipment to support the implementation of this environmentally conscious school."

The findings of this study align with those of previous studies showing that the implementation of the Adiwiyata Program significantly contributes to increasing environmental awareness and character among elementary school students [57], [58]. Several studies have shown that environmental habits through concrete activities such as waste sorting, school garden management, and the integration of environmental values into learning can foster a sense of responsibility, discipline, and environmental awareness from an early age [59], [60]. Previous research also confirms that the success of Adiwiyata is strongly influenced by the active involvement of all school members, particularly teachers as facilitators and role models for environmentally friendly behavior [61], [62]. Therefore, the findings at the State Islamic Elementary School of Bogem Sampung, Ponorogo, reinforce empirical evidence that the participatory and sustainable approach of the Adiwiyata Program is effective in building a school culture oriented toward environmental conservation and strengthening student character.

This research has both theoretical and practical implications. Theoretically, the results of this study enrich the study of environmental education, particularly in the context of Islamic elementary schools, by emphasizing that habit-based and role-modeling programs play a crucial role in building students' environmental awareness. Practically, the findings of this study can serve as a reference for other schools or Islamic schools in designing and implementing the Adiwiyata Program, which is not only oriented towards achieving awards but also emphasizes the process of developing environmentally conscious character. Furthermore, this research can also be a consideration for educational policymakers in developing sustainable, environmentally aware school programs that are appropriate to the characteristics of elementary school students.

Although this study provides an in-depth overview of the implementation of the Adiwiyata Program, several limitations warrant consideration. First, the study employed a qualitative approach with a case study in a single madrasah, making the results not broadly generalizable to all schools or madrasahs. Second, the data obtained relied heavily on observations and interviews, making it impossible to fully avoid potential subjectivity on the part of both informants and researchers. Third, this study failed to quantitatively measure long-term changes in students' environmental awareness. Therefore, further research is recommended to employ a mixed

methods approach or conduct longitudinal studies to provide a more comprehensive overview of the impact of the Adiwiyata Program on the development of students' environmental awareness and behavior.

4. CONCLUSION

Based on the results of research on the implementation of the Adiwiyata Program in increasing student awareness of the school environment at the Bogem Sampung State Islamic Elementary School in Ponorogo, researchers can draw several conclusions. First, the background to the Adiwiyata Program at the Bogem State Islamic Elementary School stems from the potential accumulation of waste around the school grounds in 2011. This waste, consisting of organic and inorganic waste, prompted an initiative to process it to prevent negative environmental impacts. The initial step was to provide separate trash bins, followed by processing organic waste into compost and utilizing inorganic waste into handicrafts. These activities laid the foundation for cultivating environmentally conscious behavior and fostered student character development.

Second, the Adiwiyata Program was implemented through a process of planning, outreach, and program implementation involving the entire madrasah community. The planning stage began with the development of the program concept, while outreach was conducted with students, stakeholders, and parents. Program implementation includes community service activities every Saturday, and operations every Monday, and the development of segregated waste management habits. Madrasas also maintain communication with parents to instill a culture of environmental stewardship that students can implement at home. Third, the Adiwiyata programs have proven to have a positive impact on increasing student awareness of the importance of preserving the school environment. This is reflected in the implementation of the seven elements of positive habits: cleanliness, beauty, comfort, order, shade, health, and safety. Furthermore, madrasas form implementation teams consisting of teachers and students in working groups, focusing on green houses, waste management, and crafting from recycled materials. Habitual activities such as tree planting, cultivating a living pharmacy, and managing family medicinal plants also support the development of environmentally conscious character traits in students.

Fourth, the Adiwiyata Program faces several obstacles in its implementation, including low awareness among elementary school-aged students, limited sanitation facilities and infrastructure, and students' lack of commitment to adopting healthy and environmentally conscious lifestyles at home. Furthermore, more intensive strategies are needed from the madrasah to guide students so they can consistently implement environmentally conscious behavior. Fifth, solutions implemented to overcome these obstacles include providing group guidance, establishing a special team to implement the Adiwiyata Program, increasing self-development hours, and using storytelling methods to raise student awareness. Teachers also play a role as directors, facilitators, and motivators in every activity so that students can actively participate in managing the school environment. Furthermore, the madrasah utilizes funding from the Ministry of Religious Affairs to meet the need for sanitation facilities and infrastructure to support the sustainability of the Adiwiyata Program. Future research is recommended to employ mixed-methods or quantitative approaches involving multiple schools to measure the long-term impact and generalizability of the Adiwiyata Program on students' environmental awareness. Additionally, further studies should explore the role of parents, communities, and innovative learning strategies, including digital-based environmental education, in strengthening the sustainability of environmentally conscious behaviors.

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