

## Implementation of Nature-Based Learning in Forming Environmentally Loving Character of Students at Fadilatul As'adiyah Teluno Elementary School

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### Abstract

*This study aims to analyze the implementation of nature-based learning in shaping students' environmental character at Madrasah Ibtidaiyah Fadilatul As'adiyah Teluno. This study uses a qualitative approach with a case study design to examine in depth the planning, implementation, and evaluation processes of nature-based learning and its impact on student character formation. Data were collected through semi-structured interviews, direct observation, and documentation involving the principal, fifth-grade teachers, and students. Data analysis was carried out through the stages of data reduction, data presentation, and concluding using thematic analysis techniques, while data validity was maintained through triangulation of sources and methods. The results of the study indicate that nature-based learning is implemented systematically through integrated planning in learning tools, implementation of experiential learning activities directly in the school environment, and ongoing character evaluation. This implementation has a positive impact on the formation of environmental character as demonstrated by increased awareness, responsibility, initiative, and collective commitment of students in maintaining the cleanliness and sustainability of the school environment. Thus, nature-based learning can be an effective pedagogical strategy in integrating cognitive understanding and character building sustainably at the elementary education level.*

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## 1. INTRODUCTION

Education is a strategic instrument in developing the quality of human resources and determining the direction of a nation's progress. Law Number 20 of 2003 concerning the National Education System emphasizes that national education functions to develop abilities and shape the character and civilization of a dignified nation. This demonstrates that education is not only oriented towards mastering knowledge, but also towards character formation, which serves as the foundation for individual behavior in social, national, and state life. Therefore, strengthening character education is an integral part of the learning process at all levels of education, including elementary schools and Islamic elementary schools.

One important character trait that needs to be developed from an early age is a love of the environment. Reality shows that various ecological problems, such as environmental pollution, illegal logging, flooding, and low awareness of maintaining cleanliness, remain serious issues in various regions. This situation indicates that ecological awareness in society has not yet been fully developed. Education plays a strategic role in instilling

environmental values as a preventative measure to build a generation responsible for the sustainability of life.

Desfandi (2015) emphasized that the formation of a society with an environmentally conscious character can be achieved through the integration of environmental values into the education system. Ecologically conscious education not only instills environmental knowledge but also shapes concrete attitudes and behaviors in preserving nature. Similarly, Herdiansyah (2019) stated that environmental character education in schools plays a significant role in shaping students' ecological behavior through habituation and contextual learning experiences. Therefore, the formation of an environmentally conscious character cannot be achieved instantly but requires a systematic and sustainable learning strategy.

In the context of Islamic education, developing a love for the environment also has a strong religious foundation. Religious values encourage humans to maintain balance and refrain from damaging nature as part of God's mandate. Fua et al. (2018) explain that a religious education approach can be an effective strategy in developing students' environmental awareness. The integration of spiritual values and ecological awareness has the potential to strengthen character development that is not only rational but also based on moral awareness and religious responsibility.

Various previous studies have examined the implementation of environmental education through the Adiwiyata program and environment-based school policies (Nurjhani & Widodo, 2014; Trahati, 2015). These studies indicate that systematic school policies can increase student awareness and participation in environmental protection. However, most research still focuses on institutional policies and formal school programs. Studies specifically exploring the implementation of nature-based learning as a pedagogical strategy in daily learning, particularly in Islamic elementary schools, are still relatively limited.

Nature-based learning is an approach that positions the environment as a resource, medium, and context for learning. This approach allows students to gain direct experience through interactions with the natural world, such as environmental observation, farming, sanitation management, and other outdoor activities. Through these experiences, students not only cognitively understand concepts but also internalize the values of responsibility and environmental stewardship. Experiential learning is believed to be more effective in shaping attitudes and character than theoretical, teacher-centered learning.

Madrasah Ibtidaiyah, as an Islamic elementary educational institution, holds a strategic position in instilling environmental values from an early age. At this stage of development, students' character is still in the formation phase, heavily influenced by learning experiences and habits, both at school and within the family environment. The role of parents in supporting the instillation of values and character at home is a crucial factor in the success of character education. Arifin and Nurhayati (2024) emphasized that parental involvement contributes significantly to the success of children's educational processes, particularly in facing the challenges of social development in the modern era. Therefore, synergy between schools and families is a crucial element in strengthening the internalization of environmental character in students.

Initial observations at the Fadilatul As'adiyah Teluno Elementary School indicate that the school has integrated nature-based activities into its learning. These activities involve direct student interaction with the surrounding environment as part of the learning process. However, its implementation still faces various challenges, such as limited infrastructure, varying teacher understanding of the nature-based learning concept, and suboptimal integration of environmental activities into thematic learning. This situation indicates the need for a more comprehensive study of the implementation of nature-based learning and its contribution to the development of students' environmental character.

Based on this gap, this study aims to analyze in-depth the implementation of nature-based learning in developing students' environmental character at Madrasah Ibtidaiyah Fadilatul As'adiyah Teluno. This research is expected to provide theoretical contributions to the development of environmentally-based character education studies as well as practical contributions for schools in designing more contextual and character-oriented learning strategies.

## **2. RESEARCH METHOD (12 Pt)**

This research uses a qualitative approach with a case study. The qualitative approach was chosen because this research aims to deeply understand the implementation process of nature-based learning and how it shapes students' environmental character. A qualitative approach allows researchers to explore the meanings, experiences, and social dynamics that occur naturally in educational contexts (Zakariah et al., 2020).

The research was conducted at Madrasah Ibtidaiyah Fadilatul As'adiyah Teluno, Kolaka Regency, with a focus on fifth-grade students. The research location was selected based on the consideration that the madrasah has integrated nature-based activities into the learning process and is committed to strengthening character education and environmental awareness. The research was conducted from October until completion according to the needs of data collection in the field.

The research subjects included fifth-grade teachers, madrasah principals, and fifth-grade students directly involved in nature-based learning activities. Informants were selected purposively based on their involvement and relevance to the research focus.

The data used in this study consisted of primary and secondary data. Primary data were obtained directly through in-depth interviews and observations of the nature-based learning process. Interviews were conducted with teachers and school officials to gather information regarding the planning, implementation, and evaluation of nature-based learning. Observations were conducted to observe student activities, learning interactions, and behavioral patterns reflecting environmental character. Meanwhile, secondary data were obtained through documentation such as learning tools, school activity programs, and archives relevant to the research.

Data collection techniques in this study included interviews, observation, and documentation. Interviews were conducted semi-structured to allow researchers to obtain in-depth and flexible information. Direct observations were conducted in the school environment to assess the implementation of nature-based learning and student responses to these activities. Documentation was used to supplement and strengthen the data from the interviews and observations.

The collected data were analyzed using thematic analysis techniques through the stages of data reduction, data presentation, and conclusion drawing. These stages were carried out systematically to obtain a deep understanding of the phenomenon being studied (Zakariah et al., 2020).

To ensure data validity, this study employed source and method triangulation techniques. Source triangulation was conducted by comparing information obtained from various informants, such as teachers and students. Meanwhile, method triangulation was conducted by comparing the results of interviews, observations, and documentation to ensure the consistency and validity of the data obtained.

## **3. RESULTS AND DISCUSSION**

### **3.1. Research Results**

## a. Implementation of Nature-Based Learning

### 1) Planning

The research results show that nature-based learning at MI Fadilatul As'adiyah Teluno has been systematically designed since the planning stage. Fifth-grade teachers developed lesson plans and learning materials by integrating the use of the surrounding environment as a learning resource and medium. Planned activities included direct observation of plants in the schoolyard, practicing cleanliness, planting simple plants, and utilizing the environment as a learning medium for science and Islamic religious education.

This planning is not incidental, but rather part of a school program focused on environmentally-based character education. The support of the principal and school policies is crucial in ensuring that environmental values are consistently integrated into learning activities. Interviews revealed that teachers stated that a beautiful madrasa environment facilitates students' contextual understanding of the material because they can directly observe and practice what they are learning.

### 2) Implementation

During the implementation phase, learning was active and student-centered. Observations showed that students not only received material in the classroom but also engaged in outdoor activities such as identifying plant types, observing plant parts, and discussing their benefits in everyday life.

In addition, practical activities such as sorting organic and inorganic waste and caring for plants are routinely conducted. "Clean Friday" is one of the consistent programs. In this activity, students work together to clean classrooms and the schoolyard without constant teacher direction.

The integration of religious values is also evident in the learning process. Teachers link the importance of maintaining cleanliness to Islamic teachings on human responsibility towards the environment. This reinforces students' understanding that protecting the environment is not only a social obligation but also a moral and spiritual value.

### 3) Evaluation

Nature-based learning evaluation is conducted through two approaches: academic evaluation and character evaluation. Academic evaluation is conducted through written assignments, observation reports, environmental activity portfolios, and student learning reflections. Through these instruments, teachers can assess students' conceptual understanding of the material being studied.

Meanwhile, character assessment is conducted through ongoing observation of students' behavior in their daily school life. Teachers observe students' environmental awareness, active participation in maintaining cleanliness, and consistent care for plants and school facilities. Character assessment is conducted continuously as part of the development process, not just at specific times.

## b. Impact on Environmental Love Character

This study found a positive impact on developing an environmentally conscious character in students. Behavioral changes were evident in increased awareness of maintaining cleanliness without constant reminders. Students began to take the initiative to clean the classroom before and after class.

Furthermore, students demonstrated responsibility in caring for the plants they had planted as part of the learning activities. They also began reminding each other not to litter and to keep the school environment tidy. These changes demonstrate that environmental awareness is not only growing individually but also developing as a collective awareness.

Another visible impact is an increased understanding of the importance of environmental protection among students. Students are able to explain the impact of waste on health and environmental cleanliness and relate this to their previous learning experiences.

### c. Supporting and Inhibiting Factors

Supporting factors for the implementation of nature-based learning include the commitment of the madrasah principal and school policies that support environmental character education. The availability of a physical environment, such as a spacious yard and school garden, is also a crucial factor in enabling optimal outdoor learning activities.

Teachers' creativity in presenting lessons and parental support in strengthening habits at home contribute to the program's success. The synergy between schools and families strengthens the internalization of environmental values in students.

Among the inhibiting factors identified were limited learning time, unpredictable weather conditions, and limited supporting facilities such as cleaning equipment and planting media. However, these obstacles can be overcome through teacher adjustments to learning strategies.

## 3.2. Discussion

The research results show that the implementation of nature-based learning at MI Fadilatul As'adiyah Teluno aligns with the constructivist principles proposed by Jean Piaget. Direct observation of the environment allows students to construct knowledge through concrete experiences. Active interaction with real objects supports the processes of assimilation and accommodation, resulting in deeper and more meaningful understanding.

These findings reinforce the views of Winataputra (2007) and Thobroni (2016) that effective learning occurs when students are actively involved in the learning process. The experience-based approach implemented in this madrasa also reflects the principle of experiential learning, where real experiences form the basis for the formation of knowledge and attitudes. From a character education perspective, changes in student behavior indicate the development of three main dimensions as proposed by Thomas Lickona, namely moral knowing, moral feeling, and moral action. Students understand the importance of protecting the environment, demonstrate concern, and realize it in real actions. The consistent habituation process supports Mahmud's (2017) view that character is formed through repeated and continuous internalization of values.

The integration of ecological values with Islamic teachings on human responsibility as caliphs on earth (Quran, Surah Al-Baqarah: 30) strengthens the spiritual dimension of character development. This integration broadens the meaning of environmental education from merely ecological awareness to moral and religious awareness. This finding aligns with research by Aprilia and Trihantoyo (2020), which states that integrating religious values into nature-based learning strengthens the development of a loving character.

Furthermore, the positive impacts found in this study support the findings of Jufri, Fua, and Nurlia (2018) and Elce, Hente, and Salam (2021), which showed that a nature-based approach contributes to improving students' environmental awareness. Thus, the results of this study not only confirm previous findings but also extend them to the context of religious-based madrasas.

Overall, nature-based learning in this study can be understood as an integrative pedagogical strategy, which connects direct experience, behavioral

habituation, integration of religious values, and support of the school ecosystem in forming a character of environmental love sustainably.

#### 4. CONCLUSION

Based on the research results and discussion, it can be concluded that the implementation of nature-based learning at MI Fadilatul As'adiyah Teluno is carried out systematically through planning, implementation, and evaluation stages integrated with character education. Learning utilizes the environment not only as a learning medium but also as a means of instilling values of environmental care and responsibility.

The research results show that a nature-based approach has a positive impact on developing environmental stewardship in students. Behavioral changes are evident in increased awareness of cleanliness, responsibility for plant care, and the emergence of initiative and mutual reminders among students. Environmental stewardship develops not only cognitively but also affectively and behaviorally.

The success of the implementation was supported by the commitment of the madrasah principal, the creativity of the teachers, the availability of an adequate physical environment, and parental support. Obstacles such as time constraints and weather conditions were not significant barriers because they could be overcome through adjustments to learning strategies.

Thus, nature-based learning can be a strategic alternative for sustainably developing a love for the environment, particularly at the elementary school/Islamic elementary school level. This study recommends that schools consistently integrate nature-based approaches into their curricula and strengthen collaboration between schools and families to support the internalization of environmental character values.

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