



The Principal's Strategy in Creating an Environmentally Friendly School as a Model of Sustainable Character Education at SDN Sukarapih 03 Bekasi

Abdul Muklis^{1✉}, Suwito Eko Pramono², Nina Oktarina³, Widiyanto⁴, Arief Yulianto⁵, Fathur Rokhman⁶

^{1,2,3,4,5,6}Universitas Negeri Semarang

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Abstract

Sustainable character education is an important aspect in developing students who are disciplined, responsible, and environmentally conscious. This study aims to analyze the principal's strategy in realizing an environmentally friendly school as a model for sustainable character education at SDN Sukarapih 03 Bekasi. The study used a qualitative approach with a case study method. Data were collected through interviews, observations, and documentation, then analyzed using the Miles and Huberman model with triangulation to ensure data validity. The results of the study indicate that the principal's strategy is implemented through the Planning, Organizing, Actuating, and Controlling (POAC) management function. Planning is carried out through the integration of environmental programs into school policies, organizing through collaboration with various stakeholders, implementation through habituation, role models, and environment-based learning, and supervision through continuous monitoring and evaluation. The research findings indicate that environmentally friendly schools function as an educational ecosystem that supports the formation of discipline, responsibility, and environmental awareness. The novelty of the study lies in the integration of the POAC management function with Bronfenbrenner's Bioecological Theory in explaining sustainable character formation through environmentally friendly schools.

✉ Correspondence Address :

Kampus Sekolah Pascasarjana UNNES Jl. Lamongan Tengah No.2,

Bendan Ngisor, Kec. Gajahmungkur, Kota Semarang

E-mail: abdulmuklis@students.unnes.ac.id

INTRODUCTION

Education is a strategic instrument in shaping the quality of human resources and determining the direction of a nation's development. Through education, students acquire not only knowledge and skills, but also values that serve as the foundation for life in society, the nation, and the state. Therefore, education plays a crucial role in shaping students' character, enabling them to face increasingly complex social, economic, and environmental challenges (Sujana, 2019).

In recent decades, the issue of environmental degradation has become a global concern, prompting various countries to integrate environmental education into their educational systems. A report by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) emphasized that education plays a crucial role in achieving sustainable development by fostering environmentally responsible awareness, attitudes, and behavior. Education is no longer solely focused on academic achievement but also on character development that supports the sustainability of human life and the environment (Bucea-Manea-Toniş et al., 2024).

In Indonesia, the commitment to environmental education is realized through various policies, one of which is through the Environmental Care and Culture Movement in Schools (GPBLHS) as regulated in the Regulation of the Minister of Environment and Forestry Number P.52 of 2019. This policy emphasizes the importance of the involvement of all school residents in creating a culture of environmental care in a sustainable manner. In addition, character education is also an important part of the national education policy as an effort to shape a generation that is moral, responsible, and has concern for the social and natural environment (Ministry of Environment and Forestry, 2019).

Despite this, various environmental issues still demonstrate that environmental awareness and behavior have not yet developed optimally. The phenomenon of indiscriminate waste

disposal, low concern for environmental cleanliness, and consumer behavior that produces excessive waste are still prevalent, including in schools. This situation demonstrates that environmental education cannot simply be delivered in the form of knowledge but must be implemented through habits and a sustainable school culture (Sharma et al., 2023).

Schools hold a strategic position in fostering environmentally conscious character because they serve as social environments that directly influence student development. Through daily interactions, students learn to understand the values, norms, and customs that develop within the school environment. Therefore, eco-friendly schools serve not only as places of learning but also as educational ecosystems capable of shaping students' character through real-life experiences and ongoing habituation (Sayekti, 2019).

The successful implementation of environmentally friendly schools is inseparable from the role of the principal as an educational leader. The principal is responsible for planning, organizing, implementing, and overseeing all school programs to ensure they run according to established goals. Effective leadership enables the creation of a school culture that supports character education and the involvement of all school members in maintaining the sustainability of environmental programs (Voelkel et al., 2024). Research by Wartana et al. (2024) shows that principal leadership and school management significantly influence school quality. Meanwhile, Li et al. (2025) emphasizes that effective leadership practices can strengthen partnership networks and school resource management to support organizational change.

Various previous studies have examined principal leadership, character education, and environmentally conscious schools. Sayekti (2019) found that environmentally conscious school management can shape students' character through the instilling of environmentally conscious behavior. Basri (2017) emphasized the importance of the supervisory function in maintaining the success of the Adiwiyata program. Hidayat et al. (2023) showed that the

implementation of the green school program contributed to improving school environmental management. On the other hand, research by Voelkel et al. (2024), Ferreira et al. (2025), and Al Alawi et al. (2025) highlighted the importance of principal leadership in building collaboration, empowerment, and a school culture that supports organizational change.

However, previous research tends to discuss principal leadership, eco-friendly schools, and character education separately. Studies integrating the principal's management function with the sustainable character building process through eco-friendly schools are still limited. Furthermore, there is limited research explaining how the interaction between the school environment, family, community, and education policy can shape students' character sustainably.

To understand this phenomenon more comprehensively, this study uses Bronfenbrenner's Bioecological Theory, which explains that individual development is influenced by the interaction of various environmental systems, namely the microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Bronfenbrenner & Morris, 2006). In the context of this study, eco-friendly schools are seen as educational ecosystems that allow for the interaction of various environmental systems in shaping student character. This theory is then integrated with the management functions of Planning, Organizing, Actuating, and Controlling (POAC) to explain the principal's strategy in realizing sustainable character education.

Based on the description, this study aims to analyze the principal's strategy in realizing an environmentally friendly school as a model for sustainable character education at SDN Sukarapih 03 Bekasi. This study is expected to provide theoretical contributions through the integration of POAC management functions with Bronfenbrenner's Bioecological Theory, as well as provide practical contributions to the development of environmentally friendly schools as a means of sustainable student character formation.

METHOD

This research uses a qualitative approach with a case study method to gain an in-depth understanding of the principal's strategy in realizing an environmentally friendly school as a model for sustainable character education at SDN Sukarapih 03 Bekasi. This approach was chosen because it can comprehensively reveal phenomena based on the natural conditions that occur in the school environment. The research subjects consisted of principals, teachers, education staff, students, school committee members, and parents, selected using purposive sampling based on their involvement and understanding of the implementation of the environmentally friendly school program. Data were collected through in-depth interviews, participant observation, and documentation studies, including school program documents, policies, activity reports, and other supporting documentation. Data validity was ensured through source triangulation, technical triangulation, and time triangulation. Data analysis employed the Miles and Huberman interactive model, which encompasses data reduction, data presentation, and drawing and verifying conclusions. Analysis was conducted continuously from the data collection stage until credible findings were obtained and data saturation was reached.

RESULTS AND DISCUSSION

Principal's Strategy in Planning Environmentally Friendly Schools

The research results show that principals carry out their planning function by integrating environmental values into the school's vision, mission, goals, and programs. Planning is carried out through the development of school policies that support the Environmental Care and Culture Movement in Schools (GPBLHS), resource allocation, and the establishment of environmental awareness programs that involve the entire school community. These findings demonstrate that the success of sustainable

Table 1. Integration of POAC and Bioecological Theory in Sustainable Character Education

Management Functions (POAC)	Bronfenbrenner's Bioecological System	Implementation at SDN Sukarapih 03 Bekasi	Developed Characters
Planning	Macrosystem	Integration of environmental values into the school's vision, mission, policies and programs	Environmental awareness and concern
Organizing	Mesosystem	Collaboration between schools, families, school committees, and the community	Responsibility and cooperation
Actuating	Microsystem	Habituation, role model, environmental-based learning, reforestation, and waste management	Discipline, responsibility, and environmental awareness
Controlling	Chronosystem	Continuous monitoring, evaluation, reflection, and follow-up of the program	Consistency of positive behavior and sustainability of character

character education requires systematic and long-term planning.

These findings align with Basri's (2017) research, which asserts that the planning function is the primary foundation for realizing Adiwiyata schools. Furthermore, Wartana et al. (2024) state that well-planned school management contributes to improving school quality and achieving educational goals.

Principal's Strategy in Organizing

During the organizational stage, the principal establishes an environmental program implementation structure involving teachers, education staff, students, the school committee, parents, and external partners. Tasks and responsibilities are clearly divided so that each party has a role to play in supporting the success of the eco-friendly school program.

These findings indicate that sustainable character building is not solely the responsibility of schools, but also involves families and communities as part of the student's educational environment. These findings support the findings of Li et al. (2025), who emphasized the importance of networking and partnerships in obtaining resource support for school development. Furthermore, Voelkel et al. (2024)

Principal's Strategy in Implementing (Actuating)

The eco-friendly school program is implemented through the instilling of environmentally conscious behavior, exemplary behavior by teachers and principals, the integration of environmental education into learning, and the use of the school environment as an educational tool. Various activities, such as waste management, reforestation, maintaining school cleanliness, and the use of environmentally friendly facilities, serve as a means of building student character.

The research results show that a consistent habituation process can foster character traits such as discipline, responsibility, and environmental awareness. This finding aligns with research by Sayekti (2019), which states that environmentally conscious schools can shape students' character through sustainable habituation. Research by Alimin et al. (2021) also shows that a sustainably designed school physical environment can foster environmentally friendly habits and behaviors in students.

Principal's Strategy in Supervision (Controlling)

The supervisory function is carried out through monitoring, evaluation, program

reflection, and follow-up on various environmental activities that have been implemented. The principal conducts regular supervision to ensure that all programs are running according to their objectives and are impacting student character development.

Research findings indicate that ongoing monitoring is a crucial factor in maintaining consistent implementation of the eco-friendly school program. These results support the research of Hidayat et al. (2023), which asserts that monitoring and evaluation are essential components of green school management. These findings also reinforce Basri's (2017) assertion that the controlling function is a crucial aspect in determining the sustainability of the Adiwiyata program.

Eco-Friendly Schools as a Model for Sustainable Character Education

Research results show that eco-friendly schools function as educational ecosystems that support the development of students' character traits of discipline, responsibility, and environmental awareness. Character formation occurs not only through formal learning but also through student interactions with the physical school environment, family, community, and various policies that support a culture of environmental awareness.

These findings can be explained through Bronfenbrenner's Bioecological Theory, which positions character development as the result of interactions between individuals and various environmental systems. The microsystem is reflected in student interactions with teachers and the school environment, the mesosystem through school-family relationships, the exosystem through partnerships with various parties, the macrosystem through educational and environmental policies, and the chronosystem through the sustainability of programs that take place over time. The integration of the POAC management function with Bronfenbrenner's Bioecological Theory is a novelty in this study in explaining the process of sustainable character formation through the implementation of

environmentally friendly schools at the elementary school level.

CONCLUSION

Based on the research results and discussion, it can be concluded that the principal's strategy in realizing an environmentally friendly school as a model for sustainable character education at SDN Sukarapih 03 Bekasi is implemented through an integrated Planning, Organizing, Actuating, and Controlling (POAC) management function. At the planning stage, the principal integrates environmental values into the school's vision, mission, policies, and programs. At the organizing stage, the principal builds collaboration with teachers, students, parents, the school committee, and external partners. At the implementation stage, character education is realized through habituation, role models, integration of environment-based learning, and utilization of the school environment as an educational tool. Meanwhile, the supervision stage is carried out through continuous monitoring and evaluation to ensure the consistency of program implementation.

The results of this study indicate that eco-friendly schools function as educational ecosystems that support the sustainable development of students' character, including discipline, responsibility, and environmental awareness. This process occurs through the interaction of various environmental systems, as described in Bronfenbrenner's Bioecological Theory, ranging from the school environment, family, community, and broader policy support. The novelty of this research lies in the integration of the POAC management function with Bronfenbrenner's Bioecological Theory in explaining how eco-friendly schools can become models of sustainable character education. The resulting model shows that the success of character education is determined not only by the school program, but also by the synergy of the principal's leadership, school culture, physical environment, family support, and the sustainability of the habituation process that occurs consistently over time. Further research is

recommended to test the resulting conceptual model in different school contexts or use mixed methods and quantitative approaches to strengthen the generalizability of findings related to the implementation of environmentally friendly schools and sustainable character education.

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