



A phenomenological study: management of independent adiwiyata schools

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Keywords:	Abstract
managemen; independent; adiwiyata school	<i>The Adiwiyata school program does not always run smoothly. Teachers find it difficult to consistently demonstrate environmentally conscious behavior, and monotonous and unvaried activities reduce the interest of students, teachers, and school staff. The purpose of this study is to describe and analyze the management of Adiwiyata Mandiri School at SMP Negeri 31 Semarang. The research approach used is qualitative. The type of research is phenomenology. The qualitative research design consists of three stages: orientation, focused exploration, and data analysis. Data collection techniques include interviews, observation, and documentation. The data analysis technique used is Miles and Huberman's data analysis, which is a systematic and interactive method for analyzing qualitative data. The results of the study show that: First, planning was carried out by compiling school environmental assessments and environmental action plans. The principal then formed a school Adiwiyata team and conducted an initial identification and assessment of the school environment. Second, Organization was carried out by determining teacher resources, planning and developing the organization, assigning and delegating authority. Third, Implementation was carried out by directing and motivating the principal, implementing independent Adiwiyata school management, supervising the principal, and reporting on the success of the independent Adiwiyata school. Fourth, Supervision of independent Adiwiyata school management was carried out through evaluation of the results of independent Adiwiyata school management, correction, and follow-up. The author suggests that school principals pay more attention to implementation and evaluation. Teachers are required to always be ready to carry out activities.</i>



INTRODUCTION

Background of the Study

Education is not only a means of acquiring knowledge, but also a key instrument in improving the quality of human life. Equitable and quality educational attainment must be supported by various components such as environment, policies, and the quality of educators. With good education, individuals can live healthier lives and contribute positively to a quality environment. Good environmental quality depends on humans themselves caring for and protecting it. However, in reality, there is a decline in environmental quality and exploitation by humans for their needs and survival. Currently, environmental awareness is still minimal. There are many efforts we can make to preserve the environment, one of which is by providing education and encouraging the creation of public knowledge and awareness about environmental preservation thru educational institutions or schools (Despriansa & Rianti, [2024](#); Muafiah et al., [2021](#)).

Schools, as formal educational institutions, are expected to contribute to increasing the knowledge and awareness of school members about environmental conservation by emphasizing awareness and interest in the environment. Schools are required to broaden their policies so that they do not only focus on cognitive aspects, but also pay attention to policies related to student character development, one of which is environmental care (May & Mamluah, [2024](#); Perea et al., [2025](#)).

School development in the field of environmental protection thru the Adiwiyata school program is constitutionally regulated in the National Education Minister Regulation No. 22 of 2006 concerning Content Standards in Chapter II, point 2. In order to achieve environmental protection and management, the government launched the Adiwiyata School program in 2010. Adiwiyata School is one of the Ministry of Environment's programs launched in 2006, and in 2010, the Environmentally Friendly School (SBL) program was changed to Adiwiyata School. This program aims to encourage and guide schools in Indonesia to actively participate in environmental conservation and sustainable development for the benefit of future generations.

Adiwiyata School Management is an effort to empower schools and their environments to be independent and effective by optimizing the role and function of schools per their established vision and mission (Halimah et al., [2022](#)). Adiwiyata is a program encouraging school communities to be more concerned about the

environment (Pahru et al., [2021](#)). Adiwiyata School Management is a tangible manifestation of the school's vision, which focuses on academic achievement, character building, social awareness, and responsibility for the earth's sustainability. It is an effective way to transform schools into better environments, one small action at a time. The implementation of the Adiwiyata program does not always run smoothly. Often, schools face resource management and allocation obstacles, which can hinder the comprehensive success of the program. For example, budget constraints are often a significant obstacle; a school may not have sufficient funds to build essential facilities. As a result, the environmentally friendly practices taught in the classroom cannot be applied in practice.

This research is of significant urgency given the increasing environmental challenges. Although the Adiwiyata program has been in place since 2006, its success in the field varies. Studies from relevant journals show that the effectiveness of the Adiwiyata program is highly dependent on integrated school management and the commitment of all stakeholders, including teachers, students, and parents (Saputra et al., [2024](#); Utari & Win Afgani, [2025](#)). The Adiwiyata program is a noble initiative with great potential to create a generation that cares about the environment. However, its success requires more than just policy. It requires a strong ecosystem, where integrated school management, the commitment of all stakeholders, and external support work together to achieve common goals (Syahri et al., [2023](#)).

Research by (Syahri et al., [2023](#)) highlights that the main obstacle often stems from a lack of innovation in environment-based learning programs, which makes students feel bored and unmotivated. The role of teachers is crucial in designing and implementing fun learning strategies that utilize the surrounding environment. Support from schools and parents is also a contributing factor in the success of this strategy. Support from the school, such as the principal and school management, in providing adequate facilities and policies, and active participation from parents, is essential to create a conducive learning ecosystem (Syahri et al., [2023](#)). Without this support, teachers' efforts will not be optimal. Collaboration between teachers, schools, and parents is key to ensuring that environmental education programs are successful and sustainable.

Research by Endah Retno Wuryandari et al. ([2025](#)) Concludes that with external support, school environmental programs become more sustainable and have a broader impact, transcending the school's boundaries. This aligns with research by Alharbi ([2025](#)), whose study examined sustainable environmental behavior in

teaching practices among school teachers to improve sustainability education and guide culturally responsive strategies. Other studies by Nuzulia et al. (2020) dan Muafiah et al. (2021) found various strategies in the form of good practices of participatory environmental activities in schools that align with the school's vision and mission. The strategy for developing an eco-school in this school was built by creating and implementing programs and setting several achievement indicators. The school established short-term, medium-term, and long-term plans for implementing environmental management in schools through participatory activities related to environmental management. Research by Perea et al. (2025) explains that the critical role of formal and informal education in fostering environmental awareness highlights how this framework shapes sustainability-oriented attitudes and actions. It encourages strategies that bridge theoretical innovation with practical implementation to foster an environmentally responsible generation and is committed to a sustainable future.

The Adiwiyata program plays an important role in gradually addressing environmental issues by fostering environmental awareness among students. This attitude will become a habit from an early age and continue. Such is the role of educational institutions or schools in fostering an attitude of concern for the environment's cleanliness, health, and beauty. By examining the practices implemented at SMP Negeri 31 Semarang, this study is expected to produce a management model that can be used as a practical reference. Therefore, this study aims to contribute to developing educational management theory and serve as a practical reference for other schools that wish to implement the Adiwiyata program optimally.

The Problem of The Study

The cultivation of environmental awareness in education aims to equip students with the knowledge and awareness that every individual has a role to play in their surrounding environment and can bring about change, especially in terms of environmental cleanliness. This environmental awareness can be developed through several programs specifically designed to train and accustom students to behave well towards their surrounding environment (Santosa et al., 2023).

The challenge educators face today, especially teachers in schools, is how to be role models for their students in their work and how to become teachers who enjoy teaching. In the context of Adiwiyata, teachers face difficulties in consistently demonstrating environmentally conscious behavior. There are difficulties for

teachers in consistently demonstrating environmentally conscious behavior. Although some are consistent, some teachers still find it challenging to be consistent. Environmentally-minded character education management is intended as a process of managing character education in life in a sustainable manner by preserving and utilizing the environment responsibly. Awareness of the need to utilize the environment responsibly must be developed in every teacher and student in our education system so that they have a strong, environmentally conscious character.

Another problem in implementing the Adiwiyata program is the inadequate availability and allocation of resources. School management faces difficulties in budgeting, such as limited funding for procuring essential facilities. In addition, problems arise from human resources. The lack of teachers or staff specially trained in environmental management hinders the program's sustainability. Without proper guidance, Adiwiyata activities cannot run effectively, thereby hindering the creation of a comprehensive environmental management system. Monotonous and unvaried activities reduce the interest of students, teachers, and school staff. This low level of participation is a significant obstacle to forming a strong environmental awareness. Without the full support of the entire school community, environmental awareness will not be adequately internalized and will only become a formality.

Schools have a significant social responsibility to shape students with an environmentally conscious character. Therefore, schools need attention from the principal so that students and school members have awareness, knowledge, norms, ethics, and real behavior in creating a conducive, creative, and sustainable school environment as the nation's future generation. Adiwiyata is a good and ideal place for acquiring all knowledge and various norms and ethics that form the basis for human welfare towards sustainable development (Kartini et al., [2024](#)). The Adiwiyata program aims to build an environmentally-friendly school atmosphere to create good learning conditions, so that the entire school community saves the environment.

Research's State of the Art

Adiwiyata is a good and ideal effort as a place to acquire all knowledge, norms, and ethics that can form the basis for the creation of human welfare and a model for sustainable development (Indriharta et al., [2024](#); Santosa et al., [2023](#)). Adiwiyata is a program that aims to create school institutions that care about and are environmentally conscious based on the norms of togetherness, openness, honesty, fairness, and natural resource conservation (Santosa et al., [2023](#)).

The conclusions that can be drawn from the explanation of the benefits of the Adiwiyata program above are 1) Making students, teachers, and school communities more concerned about environmental sustainability and aware of the importance of protecting the environment. 2) Fostering positive habits such as disposing of waste in its place, saving water and electricity, and recycling. 3) Creating comfortable and conducive teaching and learning conditions for the school community. 4) Creating a place for learning good and proper environmental education values for the school community and the surrounding community. 5) Increasing environmental education efforts through pollution control and environmental damage control activities as well as through activities to preserve the environmental functions of the school.

Efforts to realize independent adiwiyata school management consist of several stages. Each educational unit carries out a management process in an effort to implement independent adiwiyata school management. The process or function of independent adiwiyata school management is basically no different from general management processes. The activities of planning, organizing, implementing, and supervising independent adiwiyata school management are referred to as the management process.

Based on the topics mentioned above, no descriptive research has been found on independent adiwiyata school management with a focus on planning, organizing, implementing, and evaluating. The subjects of this research not only involve school principals and teachers but also school committees, parents, and students.

Novelty, Research Gap, & Objective

The novelty of this research is that it further explores how management elements (planning, organizing, implementing, and supervising) are integrated with the formation of an environmentally-friendly school culture. This research shows how environmental values are instilled not only as a program but also as part of institutional culture. By taking SMP Negeri 31 Semarang, located in an urban area, as the research location, this study provides a new context of how public schools in urban environments face challenges and take advantage of opportunities in implementing the Adiwiyata Mandiri program effectively.

This study adds a new dimension by examining in depth the collaborative role between the principal, teachers, students, school committee, and external partners (community and environmental agencies) in supporting the sustainability of the Adiwiyata program, which has not been comprehensively studied in similar studies. The data collection techniques used were observation, interviews, and

documentation studies. Furthermore, this study provides insights into the management of independent adiwiyata schools in supporting the creation of a clean and healthy school environment with a more modern approach, including the use of technology and integration in learning, which differs from previous studies that were more general in terms of the implementation of independent adiwiyata school management.

METHOD

Type and Design

This study uses a qualitative approach, which is more descriptive in nature. The data collected is in the form of words or images, so it does not emphasize numbers. The descriptive qualitative research method is the collection of data in the form of words or images, so it does not emphasize numbers. The collected data is then analyzed and described so that it is easy for others to understand (Lochmiller, [2021](#)). With a qualitative approach, it is hoped that the management of independent adiwiyata schools at SMP Negeri 31 Semarang City can be understood. This type of research is phenomenological research.

Phenomenological research describes the understanding of how independent adiwiyata school management works (Ali Marzuki Zebua et al., [2024](#); Ambar Sri Lestari et al., [2024](#)). The researcher wants to obtain an overview of the symptoms or phenomena that occur in the process of managing independent adiwiyata schools. The researcher can explore the process of managing and implementing learning and school programs so that they can bring about the effects of realizing independent adiwiyata school management.

Data and Data Sources

The data used in this study comes from two types of data sources, namely primary data and secondary data. The primary data used in this study are the results of interviews with the principal, teachers, school committee, parents, and students. Furthermore, observations of all activities of independent adiwiyata school management and documentation studies obtained from the research results in the form of data related to independent adiwiyata school management. Meanwhile, secondary data in this study was obtained from report documents, adiwiyata school programs, meeting minutes, RKS, RKT RKAS, and various other supporting documents.

Data Collection Technique

The data collection techniques used to obtain data in this study were observation, interviews, and documentation studies.

1. Observation

Qualitative observation is an observation in which the researcher goes directly to the field to observe the behavior and activities of individuals at the research location (Lochmiller, [2021](#)). The observations conducted in this study were overt and covert observations. The researcher was overt in these observations, stating that he was conducting research. However, at certain times, the researcher conducted covert observations to avoid obtaining confidential data.

2. Interviews

The interviews conducted by the researcher were unstructured interviews. The researcher interviewed informants without using detailed questions with alternative answers, but rather in a more flexible manner, only using broad outlines of the issues to be asked and developing them during the interview process. In this study, interviews were conducted with informants regarding the planning, implementation, and evaluation of independent adiwiyata school management at SMP Negeri 31 Semarang, namely the principal, teachers, school committee, parents, and students.

3. Dokumentation

Documents are a data collection technique in the form of transcripts, books, ethnopoeia, newspapers, etc (Halimah et al., [2022](#)). Several documents collected in this study were related to adiwiyata school program data, meeting minutes, ARKS, RKT, teacher assignment letters, learning tools, infrastructure reports, evaluation results, and follow-up evaluations.

The validation of the instruments used in this study is data triangulation. Triangulation combines various methods to examine interrelated phenomena from different perspectives (Vera Nurfajriani et al., [2024](#)). Triangulation is a multi-method approach researchers use when conducting research, collecting and analyzing data. The basic idea is that the phenomenon being studied can be understood well so that a high level of truth can be obtained if approached from various perspectives. Capturing a single phenomenon from different perspectives will allow for a reliable level of truth (Sorjonen et al., [2025](#)). This study's data triangulation was source triangulation from observations, interviews, and documentation. By comparing the results from these three data sources, researchers can ensure that the findings are not

based solely on one source, which may be biased. If the findings from interviews, observations, and documents support each other, the conclusions will be stronger and more reliable.

Data Analysis

The data analysis technique in this study used an interactive model developed by Miles and Saldana (Sopia et al., [2025](#)). The data was analyzed in three steps: 1) data condensation, which is a process of simplifying and systematically selecting data to highlight relevant information from interviews, observations, and documentation (Sopia et al., [2025](#)). The collected data was summarized to reflect key points related to the adiwiyata school management system at SMP Negeri 31 Semarang, covering the aspects of planning, organizing, monitoring, and evaluation. This process produced data that focused on important aspects of adiwiyata school management, facilitating analysis to achieve the research objectives. 2) Data presentation: In this stage, the data is presented in a structured format, such as brief descriptions and graphs, to facilitate understanding and analysis (Sopia et al., [2025](#)). The presentation of data aims to systematically compile information collected regarding planning, organizing, monitoring, and evaluation at SMP Negeri 31 Semarang so that researchers can easily analyze important aspects of the adiwiyata school management system. 3) Concluding and verification involves interpreting the analysis and verification results to ensure the accuracy and consistency of the findings, particularly those related to planning, organizing, monitoring, and evaluation (Sopia et al., [2025](#)). The researchers drew conclusions based on patterns identified in the data, ensuring that the conclusions were valid and aligned with the research objectives to provide clear insights into the effectiveness of the adiwiyata school management system at SMP Negeri 31 Semarang.

RESULTS

Planning for Independent Adiwiyata School Management

There are two findings from this research on planning, namely the school environment assessment and the planning of environmental action. In the school environment assessment, several things were done, namely forming a school adiwiyata team, identifying and assessing the school environment, carrying out habitual activities such as the 3R program (reduce, reuse, and recycle), and compiling a follow-up plan (RTL). Furthermore, in planning environmental action, the principal

coordinated all school members to develop a School Environmental Action Plan (RALS). Below, the researcher presents a photo of the school environmental study preparation meeting in Figure 1.



Figure 1. School Environmental Study Preparation Meeting

It is very important for the principal to plan independent adiwiyata school management. Planning independent adiwiyata school management at SMP Negeri 31 Semarang is a strategic step towards realizing a healthy, clean, and sustainable learning environment. The planning of the management of the Independent Adiwiyata School at SMP Negeri 31 Semarang City is carried out systematically and structurally, guided by the principles of participation, sustainability, and environmental awareness. As a school that has achieved the title of Independent Adiwiyata, SMP Negeri 31 Semarang City is not only required to maintain the quality of the environment within the school, but also to become a center of learning and guidance for other schools.

The planning process began with compiling a school environmental assessment and preparing an environmental action plan based on the results of the previous Adiwiyata achievement evaluation, including identifying the strengths and weaknesses of the program. Furthermore, the school sets short-term and long-term goals to maintain the sustainability of the existing Adiwiyata program. The establishment of the school's vision and mission is also directed at supporting a culture of environmental awareness, which is realized through concrete activities integrated into learning programs and extracurricular activities.

The results of the above study reinforce the research conducted by Mensunalis, Asmendri, Jamilus, Suswati, H & Devy (2024) which shows that the planning of the Adiwiyata program by the principal involves compiling and developing an integrated curriculum and organizing teacher training in subject areas. Then, research conducted by Riki (2021) shows that the planning of the Adiwiyata

program is carried out by forming a school Adiwiyata team, implementing learning by integrating PLH, involving the school community and the wider community.

Planning is a guideline for school principals in providing direction to achieve clear and easily understood goals and objectives for all teachers. According to Riki (2021) planning can be interpreted as the process of making various decisions that will be implemented in the future to achieve predetermined goals. Planning can be carried out by involving various interested parties, such as teachers and the school committee, so that it will motivate teachers because they feel appreciated and given the opportunity to express their opinions and provide input related to the implementation of the independent curriculum that will be carried out.

Organization of Independent Adiwiyata School Management

The findings of the research on the organization of independent adiwiyata school management at SMP Negeri 31 Semarang are the determination of teacher resources, planning and organizational development through training or socialization activities, assigning school members according to their abilities and experience, and delegating authority to teachers.

Organization is a very important activity in management carried out by the principal. The principal can carry out organization directly to determine the human resources capabilities of the school. According to Halimah et al. (2022), organization is the activity of dividing tasks, responsibilities, and authority among a group of people to achieve set goals. Organization in the management of Adiwiyata Mandiri School at SMP Negeri 31 Semarang City is carried out to ensure that all environmental programs can be implemented effectively, efficiently, and sustainably. As a school that has obtained the Adiwiyata Mandiri title, organization is focused on establishing an institutional structure that supports the principles of environmental education, as well as a clear division of roles between school members and external parties.

This organization is the foundation for the implementation of environmental programs and activities, including: team formation, arrangement of main tasks and functions, and coordination and reporting systems. This aims to ensure that environmental management in schools can run systematically, involve all elements of the school, and be integrated into the daily lives of the school community.

The management of the Adiwiyata Mandiri School at SMP Negeri 31 Semarang City was organized through the formation of a solid team, clear division of tasks, and structured coordination. The involvement of the entire school community and partnerships with the community are important pillars in creating a school culture

that cares about and is environmentally conscious. Despite facing a number of challenges, adaptive and collaborative organization is the key to the sustainability of the Adiwiyata Mandiri program.

Researchers observed that principals encouraged teachers to participate in training and workshops. Principals organized and invited speakers for internal training and workshops at eco-schools. These activities were designed so that the entire school community could understand the philosophy, principles, and practical strategies for environmental management integrated into the school management system. Below, the researcher presents a photo of the implementation of IHT in Figure 2.



Figure 2. In House Training

Implementation of Adiwiyata Mandiri School Management

The findings of the research on the implementation of independent adiwiyata school management at SMP Negeri 31 Semarang include guidance from the principal, implementation of independent adiwiyata school management, supervision by the principal (covering planning, implementation, evaluation, and guidance), and independent adiwiyata school reports.

Implementation is a very important activity in the management carried out by the principal. The principal can conduct supervision through direct observation to identify weaknesses and strengths in the implementation of activities at the school. Implementation activities are mandatory activities carried out by the principal. According to Halimah et al. (2022) implementation is an effort to motivate group members so that they are willing and strive to achieve the goals of the organization and its members.

The implementation of Independent Adiwiyata School management at SMP Negeri 31 Semarang City refers to the principles of environmental management that are integrated into all aspects of school activities. After achieving the National Adiwiyata and then Independent titles, this school is committed to maintaining and improving the quality of the Adiwiyata program implementation through management that covers the aspects of planning, organizing, implementing, as well as

monitoring and evaluation. The implementation of this program involves the entire school community through the habit of environmentally friendly behavior, strengthening environment-based learning, managing green infrastructure, and building partnership networks with various parties.

The implementation of the Adiwiyata Mandiri School management at SMP Negeri 31 Semarang City is going well and reflects the principles of participation, sustainability, and integration. Environmental programs are implemented through learning, school activities, and partnerships with the community. Although there are several challenges, the collective spirit of the school community is the key to the successful and sustainable implementation of the Adiwiyata program.

Researchers observed all school members participating in all planned adiwiyata programs such as waste banks, organic and inorganic waste sorting, compost and liquid fertilizer processing, green schools, living pharmacies/medicinal gardens, energy and water conservation, reforestation and tree planting, environmentally friendly canteens, environmental literacy corners, clean Friday activities/regular environmental clean-ups, and the 3R program: reduce, reuse, recycle. The researchers present photos of the implementation of the school's adiwiyata program in Figure 3.



Figure 3. Realization of Adiwiyata Mandiri School Management

In the first picture on the top left, you can see education through visual media. Several SMP Negeri 31 Semarang students are painting a mural on the school wall. This is an example of creative environmental education. The message about environmental awareness is not conveyed through boring text, but through attractive visual art. This activity directly involves students in creating learning media, making it easier for them to understand and remember the importance of protecting nature.

In the top center image, SMP Negeri 31 Semarang students collect trash in the schoolyard as part of a clean-up and recycling initiative. The focus is not only on cleanliness, but also on more structured waste management, such as sorting organic and inorganic waste. By training students to sort waste, the school not only reduces the volume of waste but also instills awareness of the economic and ecological value of each type of waste. This activity trains students to take responsibility for their environment and teaches effective recycling practices.

The image on the top right shows a reforestation and tree planting activity at SMP Negeri 31 Semarang. Several teachers, staff, and the principal are shown planting trees together with students. When authority figures such as teachers and principals participate in physical activities, they set an example. This collaboration emphasizes that environmental responsibility is a collective responsibility that demonstrates collaboration between teachers, students, and school management in reforestation efforts. Tree planting is a fundamental activity in the Adiwiyata program to improve air quality and create a cooler and more beautiful school environment.

The bottom left image shows a community clean-up and maintenance activity in each SMP Negeri 31 Semarang classroom. Students are working together to clean the gutters and the area around the school. This activity reflects a culture of active participation and shared responsibility. In addition to maintaining cleanliness, this activity teaches students the importance of caring for school facilities and preventing environmental problems.

The image on the bottom right shows integrated waste management or composting. Students and teachers at SMP Negeri 31 Semarang collect organic waste to be processed into compost. This innovative implementation turns waste into something useful, such as fertilizer. This program solves the problem of waste and provides practical education about the natural cycle. This demonstrates that Adiwiyata schools focus not only on theory but also on practical and sustainable solutions that can be directly applied. Moreover, this activity teaches students about the circular economy and shows that waste is not the end of a product but can be

reprocessed. This proves the school has a structured and sustainable environmental vision and program.

Supervision of Adiwiyata Mandiri School Management

The findings of the research on the supervision of the management of 122 independent adiwiyata schools at SMP Negeri 31 Semarang City include the evaluation of school management results (monitoring activities and providing direction, guidance, and coordination) and corrections and follow-up (correcting, identifying weaknesses, shortcomings, and inconsistencies).

Supervision is necessary to see the extent to which results have been achieved in the implementation of activities at school, both academic and non-academic. The purpose of supervision is positive and constructive in order to improve and reduce waste of time, money, materials, and energy at school. According to Dini (2024) supervision is the process of monitoring, assessing, and reporting on plans to achieve predetermined objectives for corrective action for further improvement.

Monitoring and evaluation in the management of Adiwiyata Mandiri Schools is an important process to ensure that all environmental programs and activities that have been planned and implemented are in line with the objectives and success indicators. Monitoring at SMP Negeri 31 Semarang is carried out regularly, participatively, and based on data to maintain the quality of Adiwiyata implementation and ensure continuous improvement. This monitoring is not only carried out by the principal and the Adiwiyata team, but also involves teachers, students, and even external parties such as the Environmental Agency (DLH) and the school committee. Monitoring activities include evaluation of activities and follow-up corrections.

The monitoring of the management of the Adiwiyata Mandiri School at SMP Negeri 31 Semarang City has been carried out in a systematic, participatory, and data-driven manner. Through routine monitoring, internal evaluation, and supervision by the principal and external partners, the school is able to maintain the quality of the environmental program implementation on an ongoing basis. Despite a number of obstacles, the implementation of supervision can still be carried out effectively through collaboration between school members and the application of adaptive follow-up actions.

DISCUSSION

The Adiwiyata Program is an important initiative to foster environmental awareness among students. Based on the results of the above analysis, it can be seen that at SMP Negeri 31 Semarang, the planning, organization, implementation, and supervision of the Adiwiyata Mandiri school management began with systematic and structured strategic steps. Students build their knowledge through direct experience and interaction through composting, cooperation, and waste sorting programs, reflecting constructivist learning (Mengi-Dinçer et al., [2021](#); Pahru et al., [2021](#)). Through these activities, students are not only given information, but are actively involved in solving real problems and understanding the natural cycle through practice. This creates a deep and contextual understanding (Mengi-Dinçer et al., [2021](#); Pahru et al., [2021](#)). In addition to constructivist learning, there are activities related to behaviorist theory where students play a role in shaping behavior through repetition and reinforcement. The 3R Program (Reduce, Reuse, and Recycle) and regular Clean Friday activities are examples of the application of behaviorism (Rosal, [2022](#)). By repeating these activities and making them a habit, environmentally friendly behavior becomes an internalized habit (Baker-Rush et al., [2021](#)).

Social learning emphasizes the importance of observation, imitation, and role modeling. Research shows that the involvement of authority figures, such as principals and teachers, in physical activities, such as tree planting, is significant. These actions set a direct example for students, showing that caring for the environment is a shared responsibility (Alharbi, [2025](#)). Collaboration between teachers, students, and school management reinforces social norms and desired behaviors, which students adopt.

The success of Adiwiyata Mandiri management at SMP Negeri 31 Semarang lies in the strategic integration of these learning theories. Systematic and structured planning ensures that Adiwiyata activities are not merely sporadic but also part of an integrated curriculum. The principal acts as a leader who integrates various learning approaches. They not only facilitate activities (constructivism) but also set an example (social learning) and establish policies (behaviorism) that support a culture of environmental awareness. Supervision by the principal ensures that all programs run effectively and that any weaknesses can be identified and corrected, thereby creating continuous improvement.

Collaboration between all school members and external parties is a key pillar supporting the program's sustainability. This involvement aligns with the principle of

participation, which is key to creating an environmentally conscious school culture. Thus, the success of Adiwiyata is not only about physical activities, but also about holistic management that intelligently applies the principles of psychology and learning to shape the character and behavior of the school community as a whole.

CONCLUSION

The principal of SMP Negeri 31 Semarang City has implemented independent adiwiyata school management well through a procedure consisting of four activities, namely planning, organizing, implementing, and supervising. The planning of independent adiwiyata school management is carried out by compiling a school environmental assessment and an environmental action plan. The organization of independent adiwiyata school management was carried out by determining teacher resources, planning and developing the organization, and assigning and delegating authority. The implementation of independent adiwiyata school management is carried out by providing guidance and motivation to the principal, implementing independent adiwiyata school management, supervising the principal, and reporting on independent adiwiyata schools. The supervision of independent adiwiyata school management is carried out by evaluating the results of independent adiwiyata school management, making corrections, and following up.

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