Journal of Sustainable Economic and Business (JOSEB)

Vol. 1 No. 4 October 2024: 210-220 ISSN (Online): 3063-0207 https://journal.arepublisher.com/index.php/joseb

The Evaluation of Green Behaviour Implementation in AL Fazza Nature School to Become Adiwiyata School

Asri Ismayati Sunarya^{1*}); Mafizatun Nurhayati²)

¹⁾ <u>55122120070@student.mercubuana.ac.id</u>, Universitas Mercu Buana, Indonesia
 ²⁾ <u>mafizatun.nurhayati@mercubuana.ac.id</u>, Universitas Mercu Buana, Indonesia

 *) Corresponding Author

ABSTRACT

The aim of this study is the evaluation of green behaviour implementation in Al Fazza Nature School to become an Adiwiyata school. The focus of the study is to comprehend how effective the environmental values applied in school events are and to analyse the strategy conducted by Al Fazza Nature School to become an Adiwiyata school. This study used a qualitative approach by conducting a case study method in Al Fazza Nature School. The data were taken from in-depth interviews, participant observation, and school notes analysis. The study result showed that the implementation of green behaviour in Al Fazza Nature School has been in line with environmental education principles according to the ministerial regulation of the Environmental Ministry (Permen LHK) number 23, year 2022, such as waste management using the 3R method (reduce, reuse, recycle) and the integration of environmental values in the school curriculum. However, there were several challenges to becoming an Adiwiyata school, including the lack of facilities or places related to energy conservation, teachers and students lack of commitment, and the need to create innovation related to environmental conservation. In order to make a strategic step, the school is expected to build a special team to carry out the process towards Adiwiyata.

Keywords: Green behaviour; Adiwiyata school; Environmental Education.

Article Doi: https://doi.org/10.70550/joseb.v1i4.33

How to Cite: Sunarya, A. I., & Nurhayati, M. . (2024). The Evaluation of Green Behaviour Implementation In AL Fazza Nature School To Become Adiwiyata School. *Journal of Sustainable Economic and Business*, 1(4), 210-220. <u>https://doi.org/10.70550/joseb.v1i4.33</u>

Submitted: 09-09-2024	Revised: 21-09-2024	Accepted: 03-10-2024

INTRODUCTION

Environmental problems are important matters to be paid attention to. Because the quality of the environment directly influences society's life quality in the future. One of the steps to improve environmental awareness in Generation Z is through education in sustainable development (ESD) Literature study conducted by Ssossé et al. (2021). According to Prana et al. (2021), The factor that caused the lack of green behaviour in Generation Z is the lack of environmental behaviour and lack of environmental commitment (Sudaryono and Kartika,

2022). Green transformational leadership plays an important role in inspiring and motivating employees to adopt green behaviors. Leaders who actively support and promote green practices can encourage their employees to behave in accordance with these values, thereby creating an organizational culture that focuses on sustainability (Sari & Soelton 2024).

In order to improve local society and policymakers' awareness towards climate change phenomena and environmental management, it is crucial to put climate change themes in education. This internalization can be obtained by making a curriculum that considers climate change and environmental issues, which is strengthened by the Ministerial Regulation of the Environment Ministry number no P.52/MENLHK/SETJEN/KUM.1/9/2019 concerning the Movement of Environmental Culture and Awareness in Schools. The Indonesian government has issued a policy to implement green behaviour for students through the Adiwiyata school program.

LITERATURE REVIEW

Green Behaviour

Green behaviour needs to be proven by acts based on values, norms, and affections towards the universe (Ratih et al., 2022). The concept of green behaviour in education has been studied in various sciences; thus, we have various terms such as "Go Green," "Think Green," and "Green Architecture." Green behaviour competence is including head (knowledge), heart (awareness), character of attitudes (spirit), hand (skill), and attitude (mind). Concern for environmental issues is one of the main components of green behavior. People who have a high level of concern for the environment will be more likely to adopt environmentally friendly practices in their daily lives, including choosing green products. Widi and Ramli (2024) emphasizes that environmental concern has a significant positive influence on the intention to buy green products, which reflects green behavior in consumption actions. Moreover, green awareness refers to an individual's knowledge and understanding of environmental issues and the importance of environmentally friendly actions2. Green awareness has an important impact on green beliefs and the intention to buy eco-friendly products, such as eco-friendly homes, which is a manifestation of green behavior (Imaningsih et. al, 2024) and by increasing environmental awareness and building trust in green brands, green behavior can be encouraged and applied broadly (Arviya, S., & Ramli, Y 2024).

Planned Behaviours Theory (PBT) - Ajzen (1991)

PBT suggested that someone's intention to act is influenced by three major factors, that is, attitude towards behaviour, subjective norms, and attitude control that someone feels. In the context of green behaviour, someone has a positive attitude towards the behaviour and feels support from other people and the ability to do it. Environmental attitude reflects an individual's awareness and commitment to the importance of protecting the environment. Consumers who have a positive attitude towards the environment tend to behave green by choosing products that are in line with their values. However, the study found that environmental attitudes did not have a significant influence on purchase intention (Ardheta & Shiratina, A 2024).

RESEARCH METHOD

This study was conducted in Al Fazza Nature School from 5 July to 3 December 2024. The method used was a qualitative method with case study design. The sampling technique used was purposive sampling. Data collection methods were obtained from interviews, observations, and document analysis, and also used triangular data resource to test the instrument. For data validation, confirmation from an Adiwiyata expert was included.

RESULTS AND DISCUSSION

From the study results that include observation and interviews with some sources, the result of interviews and observations in Al Fazza Nature School are as followed:

Green Behaviour Implementation Through SA WAYS

The interview with the headmasters of SD and SMP, related to green behaviour implementation in Al Fazza Nature School through SA WAYS, showed that, overall, all students, teachers, headmasters, parents, and the school board have collaborated to initiate the green behaviour movementThere are several school programs supporting the green behaviour implementation and have become the school's policy, which are:

Nature Conservation

Protecting and preserving nature can be done by protecting water resources, preserving plants and animals, improving biodiversity, and increasing the advantage values of all natural wealth in our surroundings; not doing tree-cutting when a school is built; and educating students to live side by side with plants and animals in Al Fazza Nature School. If it was urgent, then school must plant substitutional trees.

The following is a quote from the elementary school (SD) headmaster related to the nature conservation:

"Alhamdulillah (Thank God) we didn't damage the area, we event planted some trees."

The opinion is supported by the statement from the junior high school (SMP) headmaster:

"If we are talking about damaging in general, the answer is no. Yes, we need area to facilitate teaching and learning process for students. But we didn't do damaging."

Waste Management

Based on the results of observation and interviews to headmasters, students, and parents. As responsibility upon production and consumption that have been conducted (SDGs) and as part of clean culture habit. Al Fazza Nature School has carried out waste management by involving students, teachers and parents as followed:

- 1) Waste sorting between organic, non-organic and bottle waste;
- 2) The founding of AL Fazza Green Community (Khiaz) which one of the programs is to manage school waste;
- 3) Organic waste recycling of leaves and food leftovers to become compost and liquid *fertilizer;*
- 4) Non-organic waste is managed by waste bank to be sorted out into students' learning material, and the rest is given to the waste collector to be recycled again.

The following is a quote of interview with one of the teachers concerning waste management:

"We have already sort out the waste. There are specific places for organic and nonorganic. We also have a special team to manage compost. We cooperated with students of 9 grade in SMP. We manage the compost and also, we have maggot cultivation."

One of the IX grade student was also giving similar statement related to waste management in school:

"At school we have organic and non-organic waste, and we also make compost."

The teacher's and student's statements are supported by parents' statement related to waste management that impacted the awareness of waste management at home; here is the quote:

"Of course we involve the students. When they go to school, they even have to bring sorted waste, therefore they are always involved. Ayub is also sorting waste at our house. He always says which one he brings today to school, bottles or card boxes or what. It is between organic and non-organic."

Green Open Space (GOS)

According to observation result, Al Fazza Nature School has green open space in more or less 3000m² area where plants were grown naturally, and some of them were planted there in purpose. The GOS existence in Al Fazza Nature School gives optimal movement and exploration spaces for students to support gardening activity and students outbound. This is stated in the interview with SMP hemaster:

"Yes. The area is used for students. The example is like the birch garden, students have many activities there. It is also used for outbound or open space learning. We also use the open space for gardening."

Biodiversity

According to biodiversity observation in Al Fazza Nature School, there are various medicine plants include Red Betel, Betel Leaves, Sambiloto (Green Chireta), Turmeric, Ginger, Galangal, Aloe Vera, Castor Leaves/Kaliki, Jujube, Green Grass Jelly Leaves, Blue Pea Flowers, Bay Leaves, Sweet Leaves, Screwpine, Lemongrass, Cat's Whiskers, Moringa Leaves), decotarive Plants include Spider Plant, Rhoeo Discolor, Sansevieria, Red Shoots, Devil's Ivy, Deandron, Miana, Terminalia Mantaly, Aglonema, Magnolia Champaca, Anthurium Crystallinum, Murayya Paniculate, Sablo, Ruellia Simplex, Stag Horn Fern, Croton, Philodendron, Teak, Saraca Asoca, Jasminum Sambac), fruit trees such as Rambutan, Mango, Avocado, Banana, Starfruit, Coconut, Dragon fruit, Papaya, Pineapple, Melon, Lime, Malay Rose Apple, Mulberry, vegetables and various animal such as Decorative Fish, Chicken, Catfish, Tilapia Fish, Butterfly, Centipede, Bee, Swallow (Sriti), Insects, Snail, Frog, Dragonfly, Monitor Alligator).

Learning with Nature

According to interview results with teachers and the headmaster in Al Fazza Nature School, the Nature Schoollearning method is learning with nature (LWN) by using the potential biodiversity and local resources as context and diverse learning sources. LWN integrates environmental awareness movements into some subjects based on learning themes. LWN is very effective in growing students' awareness towards environmental preservation, which is one of the programs Clean, Neat, Organized; so students cannot start the learning process before their class is clean. The following are some quotes from the teacher's interview:

"We provide a specific time, before students go home or before learning they have to do the Bersih Rapi Tertata (Clean, Neat, Organized)."

Energy and Water Conservation

Students, teachers, parents, and school's staff all have awareness and actively engage in doing energy and water conservation, such as turning off lights and electronic devices when they are not used and using water effectively. Another way is to manage rain water by holding it in water reservoirs. The following is the quote from the headmaster:

"Alhamdulillah we have program of water reservoir to manage rain water. We also promoting water saving by telling students to use water effectively, and turning off electricity when they are not using it."

Planting and Tree Maintenance

Teachers use garden areas to teach students about the plant life cycle, photosynthesis, biodiversity, and ecosystems by observing plants directly. Besides the place for the learning process, the school garden is also used as a place where various events of environmental awareness are held. Students are actively engaged in the gardening process, from sowing, planting, maintaining, and measuring plant growth per week to when harvest time comes. The harvested crops are usually cooked by students or sold. Students are also having "panen raya" (big harvest) that is celebrated on Earth Day. This event is not only educating but also bringing joy to students and motivating them to participate more. This is stated by one of the students from IX grade; the following is the quote:

"Gardening is part of school's program."

Educating and Campaigning of Environmental Awareness Movement

According to observation and interview results, educating and campaigning of environment awareness movement is conducted with seminars, workshops, social media campaigns, education video contents, poster and so on. Parents are also benefit from the education program. This is stated by one of the parents in the following interview quote:

"The school has so many events about environment. The examples are from posters and some trainings. There is also Green Community, I think that's what it is called, they are doing some kind of workshop about environment. Therefore, parents are facilitated by those activities." The good attitude towards environmental awareness that is reflected in students' behaviour can be seen in their attitude in the school or at home. According to the field observation, green behaviour implementation can be measured from students' attitudes in their awareness towards the environment, such as sorting out organic, non-organic, and bottle waste and giving the sorted waste to the school waste bank. Organic waste in the form of food leftovers is cycled to be compost and maggot cultivation. Students are actively involved in school recycling program by using waste as learning media (handicraft). Students are used to saving electricity and water energy. Students can be seen turning off lights and electronic devices when they are not using them anymore and using water effectively.

The involvement of parents and communities in the green behaviour program in Al Fazza Nature School is very crucial to improving awareness and broader support. According to the observation and interview results concerning parents involvement in education and campaigns, it can be seen that parents are actively engaging in seminars, workshops, and discussions in order to improve their understanding towards the importance of green behaviour. This is stated by one of the parents from IX grade when being asked about his support as a parent; the following is the quote:

"Of course. Hahaha Insya Allah we are supporting this program, because it is widely campaigned."

Parents are supporting students to apply green behaviour in their neighbourhood through activities such as reducing plastic, sorting waste, planting plants, and saving water and energy.

Green Behaviour Implementation Through Adiwiyata

The Adiwiyata program has been perfected, and in 2019, this program was officially transformed into The Movement of Environmental Protection in School or PBLHS movement. The PBLHS movement is aimed at supporting collective action consciously and willingly and creating networking and sustainability in the program of environmental awareness in school/madrasah. According to the results of interview and document/archive research that was given by the Head of Division of Attitude and Culture in Environment and Forestry), The indicators for PBLHS components are as followed standards:

- 1. Learning process in school, extracurricular programs and self-habit that integrates PRLH into program at school.
- 2. Waste management aspect
- 3. Planting and maintaining trees and plants aspect
- 4. Water conservation
- 5. Energy conservation aspect
- 6. Other Innovation Aspect Related to PRLH Application

The Evaluation of Green Behaviour Implementation Through SA Ways in Al Fazza Nature School

Evaluation is a very important matter to improving quality and measuring level of success of a program or a policy. In this study, things that are evaluated are:

Stakeholder Understanding About Green behaviour

According to interview results, stakeholders like headmasters, teachers, students, and parents need to comprehend that green behaviour includes sustainability attitudes like waste management, energy conservation, the use of natural resources wisely, and environmental protection. Furthermore, the green behaviour is consistent with the values and learning methods of Nature School, such as observation and exploration approaches. The green behaviour is integrated into the curriculum through environmental projects, events outside school, and practicing green behaviour habits not only in school but also at home and has become the school's culture as a collective habit. The headmaster also urges and leads initiatives related to green behaviour. The following is a quote taken from an interview about students' understanding:

"Green behaviour is like what I am currently studying about Green Living. The main idea is to live healthily, and reducing negative condition in this Earth."

There are supports from parents and communities. Parents understand and support proenvironmental values that are taught at school and apply it at home. Parents are also getting involved in environmental awareness activities at school.

Roles of School Facilities and Infrastructures

The roles of school facilities and infrastructure in practicing green behaviour towards the environment are very important, and it has been done in Al Fazza Nature School, such as providing a physical environment that supports responsible practice towards the environment and improving environmental awareness.

Supporting Factors and Challenges of Green behaviour Implementation in Al Fazza Nature School

There has been internal support in the form of commitment from the headmaster and school board, who shared a strong environmental vision to facilitate the successful implementation of green behaviour in this school. Teachers integrate the sustainability values in daily learning. There is also external support in the form of parents' involvement in supporting green behaviour at home to strengthen the school's program. For instance, parents are providing lunch in non-plastic storage and giving water tumblers to students. This green behaviour implementation has some challenges in the execution, which is the commitment on understanding and awareness from all parties related to green behaviour in this school. The commitment is still fluctuating, and all people have to be reminded again of the importance of green behaviour. This is uttered by one of the teachers in SD as follows:

"The students need to be consistent, and teachers are the role models."

Furthermore, another challenge is in terms of limited budget in implementing green behaviour. This program needs capital such as to install solar panel or buying recycling tools. Cooperation with society has not been written in legal agreement, therefore, this green behaviour effect have not been felt by the society near school. The positive impact that society has got is still in the form of social projects.

The Impact of Green Behaviour Implementation Through SA WAYS in Al Fazza Nature School

Green behaviour implementation is building habit activity. Programs on waste sorting and management and other environmental awareness activities give a big impact towards the learning process. The impact of green behaviour implementation through SA Ways can be analysed from aspects of environment, social, education and students' personality. Based on the research using SA Ways approach, learning that emphasized on experiences give unique and in-depth result. The results are such as reducing ecology footprint through waste management by direct practice like sorting out, recycling waste, applying 3R and reducing waste in the garbage dump. Furthermore, the impact also touched parents where they are actively engaging in waste management and they became aware of environmental protection and started to participate in school's programs. The action that is done by parents were building green community with parents as the managers and members. Green behaviour is building environmental awareness in students so that they pay more attention, be responsible and aware of their acts' impact towards environment. SA Ways also improve leadership and collaboration in events, such as leading team work to make water purifying system.

The Comparison of Green Behaviour Implementation Through SA WAYS and Adiwiyata.

The following is the analysis:

The similarities of Green Behaviour between SA Ways and Adiwiyata are as follows:

- Both of them are aimed at supporting green behavior among students, teachers, and school communities and focus on sustainable environment management, where the basic principle is to urge students to actively participate in green behavior programs and involve various stakeholders, including teachers, students, parents, and society.
- Both of them have a main event of greening, waste management, water and energy conservation, sanitation and drainage, being integrated in subjects (curriculum) and innovation. Those mentioned activities heavily influence in developing habit like sorting waste, saving energy and reducing plastic consumption, improving awareness and integrating environmental values in the teaching and learning process in order to develop human resources who have environmental knowledge and responsibility.

The Differences of Green Behaviour Implementation Through SA WAYS and Adiwiyata are depicted in the following Table 2 and 3:

Adiwiyata		
Aspect	SA WAYS	Adiwiyata
Program Approach		
Basic Principle	Emphasizing nature-based learning and experience (Learning and experience)	government policy to create
Main Orientation	The building of green behaviour character through direct practice and	and culture. Improving awareness through regulation and awarding.

Table 2. The Differences of Green Behaviour Implementation Through SA WAYS	and
Adiwiyata	

	interaction with environment.	
Implementation Focus		
Curriculum	Flexible curriculum based on environmental projects	Formal curriculum
Activity	Daily activities based on all students' participation	Regular activities that involving Adiwiyata activist.
Community Involvement	High participation of parents due to their initiation/self-awareness to be involved in green behaviour activities and the existence of green community.	Participation of parents are in line with instructions or school's needs.
Facilities	Facilities are adjusted with school budget.	Support from the government
Learning Method	8	0
Learning Strategy	Belajar Bersama Alam (BBA) or learning with nature where students are invited to directly interact with nature and to understand the sustainability concept.	In line with formal guidelines.
Character Building	Growing affection towards environment (nature), leadership, responsibilities and entrepreneurship.	<i>Emphasizing</i> <i>environmental awareness</i> <i>according to the school's</i> <i>policy.</i>
Successful Indicators	Students [†] independence in loving their environment. Sustainable awareness.	Filling out levels document of Adiwiyata Adiwiyata award for school.
Obstacles and Challenges	The necessary approach that needs high commitment from teachers and students.	The burden of high administration.
	Lack of formal appreciation from the government related to nature-based programs	Dependence towards external supports (government)

According to Table 2, SA Ways focuses on the experience-based approach that is natural, flexible and direct, with emphasis on independence character building and affection towards environment. However, this approach is not getting any formal appreciation. On the other hand, Adiwiyata itself counts on the government's policy, structured activities and appreciation as the main motivations. This approach is more formal, but tend to be more administrative and depend on external supports.

Al Fazza Nature School Strategy To Become Adiwiyata School

Al Fazza Nature School is able to integrate SA Ways with Adiwiyata standard to reach the objective of Adiwiyata school. This strategt combines experience-based approach and

obedience towards formal guidelines from Adiwiyata. According to discussion forum that involved all stakeholder in SA Al Fazza who included headmaster, teachers, school board and parents, some strategies were designed so that SA Al Fazza is able to fulfil Adiwiyata standard as followed:

The integration of green behavior values in education is carried out by combining the unique SA Ways teaching method with teaching materials aligned with Adiwiyata indicators. Additionally, an integrated approach across all subjects is used to integrate sustainability values and enhance environmental awareness in all aspects of learning. Strengthening facilities and infrastructure includes improving school facilities to meet Adiwiyata standards, reflecting a commitment to sustainable environmental management. Efforts also focus on increasing school and external community involvement by fostering collaboration with parents and the broader community, encouraging active participation in greening activities and waste management. Furthermore, cooperations with government agencies and non-governmental organizations are established, including collaboration with the Department of Environment to gain technical support and resources for achieving Adiwiyata indicators. Additionally, a dedicated team is formed to draft documents, including vision and mission statements, programs, and environmental activity reports, in line with Adiwiyata standards. These documents are then uploaded to the official Adiwiyata website according to each level's criteria. Innovation in environmental care movements is a strategic step to raise awareness and participation among school residents and the surrounding community in preserving the environment.

CONCLUSION

Students at Al Fazza Nature School have a high level of awareness about the importance of protecting the environment. Evaluation results showed that the SA Ways approach aligned with Adiwiyata, as evidenced by the similarity in the achievement parameters of the Environmentally Friendly Culture-Based School Program (PBLHS) and confirmation from Adiwiyata expert. To achieve Adiwiyata School status, several strategic steps can be taken by Al Fazza Nature School, including aligning the curriculum, strengthening infrastructure facilities, increasing engagement between the school and the external community, reinforcing commitment to green school policies, forming a team for document preparation, innovating environmental care movements and fostering multi-stakeholder collaboration. Based on the result of the study, there are some suggestions from the researcher, that is to urge school to use this study result as a guideline when planning a new policy and program that can support school's effort to become Adiwiyata. Researcher later is going to study similar phenomenon but broaden the scope so that the information gathered can be more completed and give more impacts.

REFERENCES

- Ardheta, F. I., & Shiratina, A. (2024). The Effects Of Green Products, *Price Perception And Attitude* On Purchase Intention of Sustainable Fashion. Journal of Sustainable Economic and Business (JOSEB), 1(1), 37-45. https://doi.org/10.70550/joseb.v1i1.3
- Arviya, S., & Ramli, Y. (2024). The Influence of Green Product *Strategy, Green Promotion, and* Brand Image on Environmental Awareness and Its Impact on Purchase Decision for

Panasonic Inverter AC Products. Journal of Sustainable Economic and Business (JOSEB), 1(3), 186-200. <u>https://doi.org/10.70550/joseb.v1i3.12</u>

- Fischer, D., King, J., Rieckmann, M., Barth, M., Büssing, A., Hemmer, I., & Lindau-Bank, D. (2022a). Teacher Education for Sustainable Development: A Review of an Emerging Research Field. In Journal of Teacher Education (Vol. 73, Issue 5, pp. 509–524). SAGE Publications Inc. <u>https://doi.org/10.1177/00224871221105784.</u>
- Imaningsih, E. S., Ramli, Y., & Anggraeni, A. (2024). Impact of Green Awareness, Green Brand Image, and Green E-WOM with Trust as a Mediation on the Intention to Buy Eco-Friendly Houses. Journal of Sustainable Economic and Business (JOSEB), 1(3), 167-185.
- Primasti, S. . (2017). Implementasi Program Education For Sustain*able Development Di SMA Tumbuh*. Jurnal Spektrum Analisis Kebijakan Pendidikan. <u>10.21831/sakp.v10i3.17465</u>. <u>https://journal.student.uny.ac.id/index.php/sakp/article/view/17465</u>
- Sari, L. W., & Soelton, M. (2024). Implementing Green Transformational Leadership to Improve Green HR Practices and Green Employee Behavior to Provide Sustainable Organizational Performance. Journal of Sustainable Economic and Business (JOSEB), 1(3), 153-166
- Sudaryono, H.,N.,B., & Kartika, L., (2022). Strategi Internalisasi Gre*en Behavior Berbasis Pendidikan* Pada Generasi Z Untuk Terwujudnya Lingkungan Sehat Bagi Indonesia Emas 2045. http://dx.doi.org/10.52353/ama.v15i1.228./ https://www.researchgate.net/publication/367699964.
- Ssossé, Q., Wagner, J., & Hopper, C. (2021). Assessing the impact of ESD: Methods, challenges, results. In Sustainability (Switzerland) (Vol. 13, Issue 5, pp. 1–26). MDPI. <u>https://doi.org/10.3390/su13052854</u>: Manajemen, Koperasi, Dan Entrepreneurship, 9(2), 209. <u>https://doi.org/10.30588/jmp.v9i2.499</u>
- Utomo, M. H., Suharti, L., Sasongko, G., & Sugiarto, A. (2023). DELEVOPING GREEN BEHAVIOUR IN INDONESIA: WHY DOES ADIWIYATA SCHOOL MATTER? Journal of Sustainability Science and Management, 18(5), 33– 51. <u>https://doi.org/10.46754/jssm.2023.05.003</u>
- Widi, R. N., & Ramli, Y2. (2024). The Influence of Green Product, Environmental Concern, and Green Trust on Tupperware's Green Purchase Intention (Study on Ciledug Society). Journal of Sustainable Economic and Business (JOSEB), 1(1), 1-11