

The Implementation of Education for Sustainable for Development (ESD) in Shaping Students' Green Behavior

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Abstract

This research is motivated by the need for sustainable development whose goal is to realize a sustainable period in the context of environmental integration. However, the problems that currently occur in students seem to be contrary to expectations. Many students lack awareness in preserving the environment. Therefore, there needs to be an effort to shape the green behavior of students to create a sustainable life. One way is to implement ESD in schools. The purpose of this study is to obtain empirical knowledge in the field about the problem studied, namely about the application of Education for Sustainable Development (ESD), environmentally friendly attitudes (green behavior) of grade IV students and the role of teachers in shaping the green behavior of grade IV students at SDN Cakung Timur 02 Pagi. The research method used is descriptive qualitative with data collection techniques in the form of interviews, observations, questionnaires and documentation. Data validity checking techniques using triangulation techniques. Data analysis techniques in this study include data reduction, data presentation and conclusions. From this research produced as follows: 1). The implementation of Education for Sustainable Development (ESD) at SDN Cakung Timur 02 Pagi shows that teachers and principals do not really understand the concept of ESD; 2) The environmentally friendly attitude of grade IV students is good enough even though it is not optimal in its implementation; 3) The role of teachers in the formation of green behavior of IV students at SDN Cakung Timur 02 Pagi is quite optimal in its achievement.

Kata kunci: *Education for Sustainable Development, green behavior, students'*

1 INTRODUCTION

The problems in today's world are complex, as shown by the emergence of various global issues. Of the various global issues, environmental issues are one of the issues that are often discussed by both local and international governments. Environmental problems that are currently the most serious problems that occur in Indonesia include river pollution, forest destruction, flooding, abrasion, air pollution, soil pollution, declining biodiversity, accumulated garbage (DLHK Banten Province, 2018). These environmental issues have become a common concern for people around the world, not only the people of Indonesia. Therefore, to solve this problem, serious action is needed to create a sustainable life for future generations.

Countries in the world including Indonesia solve the above problems both global and national problems by agreeing together on a global agenda through a UN conference in September 2015 entitled Sustainable Development Goals (SDGs) as an effort to maintain

the quality of life of a generation to meet the challenges towards a sustainable world until 2030 (SDGs for 30) (Bappenas, 2019).

SDGs contain 17 sustainable development goals, namely (1) No Poverty; (2) No hunger; (3) Healthy and Prosperous Life; (4) Quality Education; (5) Gender Equality; (6) Clean Water and Proper Sanitation; (7) Clean and Affordable Energy; (8) Decent Work and Economic Growth; (9) Industry, Innovation and Infrastructure; (10) Reduced Inequality; (11) Sustainable Cities and Settlements; (12) Responsible Consumption and Production; (13) Climate Change Handling; (14) Ocean Ecosystems; (15) terrestrial ecosystems; (16) Peace, Justice and Resilient Institutions; (17) Partnerships to Achieve Goals (UNESCO, 2015). The role of education is needed in achieving the sustainable development goals. In this context, education is expected to improve the way of thinking of humans in order to have the skills, competencies and knowledge to make changes to the social, economic and environmental dimensions. Therefore, Education for Sustainable Development is here to answer today's global and national challenges.

ESD is an educational program that teaches individuals from an early age to reduce individual dependence on natural and social resources (Prabawani, 2021). Thus, ESD in education from an early age means individuals will gain awareness and understanding of sustainability issues and environmentally friendly practices from an age to create sustainable living for generations to come. The ESD program is carried out to foster students' love and awareness of the surrounding environment and teaching methods that raise environmental issues into the curriculum that has been applied (Pustaka Sumatra, 2017). Although the education curriculum does not explicitly carry the theme of ESD and SDGs in practice. The implementation of ESD in the field of education can be integrated in providing education from schools to students and teachers related to sustainable development issues based on 3 pillars, namely economic, social and environmental. In a workshop held by the Ministry of Education and Culture, representatives from the Curriculum and Books center revealed that there are several ways to integrate ESD content into the educational curriculum, especially primary and secondary education, namely intracurricular, co-curricular and extracurricular learning content (Jawardi, 2021). Some examples of integrating ESD concepts in schools are in the habit of bringing drinking bottles from home, sorting organic and anorganic waste, reducing the use of plastic packaging, skills to dispose of waste in its place, class pickets, tree planting, balanced nutrition education and so on. Through ESD as one of the learning approaches, it is expected to realize a generation that has a sustainable mindset

Creating a sustainable mindset and life can then be started through an environmentally friendly attitude or green behavior. Remembering in creating a change cannot be done instantly. However, it is done gradually from an early age and is carried out continuously until green behavior is formed in students. Green behavior will be formed after students get education at school to build awareness of environmental concerns and make them part of nature (Ariesta, 2020).

Students can be equipped with an understanding of awareness and skills in reducing, reusing and recycling paper or plastic waste. Green behavior of students is very important to support sustainable development in the midst of consumptive community behavior (Ariesta, 2020). With green behavior, students will live a life that goes green and create an environmentally friendly school environment.

Based on the background description above, the problems that occur are caused by the lack of knowledge of students about environmental education causing students to have less responsibility in preserving their environment. Therefore, researchers are interested

in conducting further and detailed research on "The Implementation of Education for Sustainable Development (ESD) in Shaping Students'Green Behavior".

2 RESEARCH METHODS

In this study, researchers used qualitative descriptive research methods. According to (Sugiyono, 2018) qualitative research methods are research methods based on philosophy, which are used to examine scientific conditions (experiments) where researchers as instruments, data collection techniques and qualitative analysis emphasize more on the meaning. Qualitative descriptive research is aimed at describing and describing existing phenomena, both natural and human engineering, which pay more attention to characteristics, quality, linkages between activities (Nana Syaodih Sukmadinata, 2019). This study was conducted to determine the application of ESD in shaping the green behavior of students at SDN Cakung Timur 02 Pagi by describing the results of research findings with the aim of obtaining a picture of the reality of the application of the ESD concept in schools.

The data sources of this study are primary data sources and secondary data sources. Primary data sources are data sources that directly provide data to data collectors, such as principals, teachers and students. While secondary data sources are sources that do not directly provide data to data collectors, such as obtained from books, literature, journals and articles that have relevance to the object of research (Sugiyono, 2015).

Data collection techniques in the field are carried out by observation, interviews, open questionnaires and documentation. The technique of checking the validity of the data in this study is by using triangulation techniques. Data analysis techniques use data reduction, data display, and conclusion drawing/verification.

3 RESULT AND DISCUSSION

3.1 General Findings

3.1.1 Implementation of Education for Sustainable Development (ESD) at SDN Cakung Timur 02 Pagi

Based on the data obtained from interviews with Mrs. Eva as the homeroom teacher of class IV and Mrs. Meri as the principal of SDN Cakung Timur 02 Pagi, it can be seen that both of them do not really understand the concept of ESD. Here's a statement from Ms. Eva.

"I don't know about the concept of ESD yet, even looking at the term I don't think I have ever been. However, the values of ESD have been implemented in the learning process activities in schools." (interview, May 11, 2023)

Similar to Ms. Eva, Ms. Meri as the principal also does not understand the concept of ESD. Here's the statement. *"I don't really understand the concept of ESD in depth, because I haven't received information or socialization from supervisors about ESD." (interview, May 11, 2023)*

Even so, ESD values have been implemented into subject matter and activities during the learning process at school. This is in line with Ms. Eva's statement explaining that the school has implemented ESD values. Here's a statement from Ms. Eva.

"If the activities have been carried out at this school, such as planting trees in the garden behind the school, it is mandatory to bring provisions and eat together every Friday,

carry out ant operations after Monday's ceremony, reduce plastic waste by bringing their own food containers when snacking, use of used goods and much more." (interview, May 11, 2023)

It is undeniable, there are still many teachers or principals who do not fully understand the concept of ESD. This is because there is no explicit policy from interested parties (stakeholders) regarding ESD that can be used as a reference for developing programs and their application at the education unit level.

3.1.2 *Green Behavior of Grade IV Students at SDN Cakung Timur 02 Pagi*

Based on data obtained from observations and interviews of researchers with several grade IV students, it was found that most students had a friendly attitude towards the environment even though in fact there were still some students who did not understand about green behavior and did not have awareness in protecting and preserving the environment, especially in the environment of SDN Cakung Timur 02 Pagi.

The lack of awareness of grade IV students in protecting the environment can be seen from the results of researcher interviews with several students in grade IV. The following is a statement from a student with the initials A.

"I don't want to throw garbage in the trash, because I don't want to go out of class. So it's easier for me to taro under the table." (interview, April 5, 2023)

The same statement was also expressed by students with the initials AK. Here's the statement.

"I don't want to look for the trash can, brother, so sometimes I throw out the waste used for snack wrappers tucked near plant pots and under the table. Because I often do that and don't get caught by the teacher, so I do it again." (interview, April 5, 2023)

This is reinforced by the results obtained by researchers during observations, researchers found plastic waste used by batagor under the desk of one of the students. an plastic packaging. Then, Mrs. Eva also said that students have been urged to bring food containers for snacks and drinking bottles from home to reduce plastic waste, but still students prefer snacks using plastic packaging. This is in line with what was conveyed by students with the initials J, along with the statement.

"I don't carry food containers every day, but do carry them. I prefer to use plastic because it can be thrown away directly." (interview, April 5, 2023).

This is reinforced from the observations found by researchers during research. It can be seen that most students do not bring provisions from home. However, there are some students who bring tumblers from home. Although there are some students who bring drinking water using plastic bottles that he bought at the stall. Researchers also saw that students prefer snacks in the school cafeteria and buy snacks outside of school. At the beginning of the study, researchers saw one of the students with the initials GH bring a food container from home to be used as a snack container. Researchers also conducted interviews with these learners. Here's the statement.

"I like to bring containers when snacking, because if they don't run out, I can put them back and take them home." (interview, March 2, 2023)

3.1.3 *The Role of Teachers in the Formation of Green Behavior of Class IV Students at SDN Cakung Timur 02 Pagi*

Based on the results of observations and interviews of researchers in class IV, it was found that the role of Mrs. Eva as homeroom teacher has been instilled in students through the

provision of environmentally oriented subject matter, environmentally oriented activities and habituation in reducing the use of plastic waste. The following is a statement from Mrs. Eva regarding her role in shaping the environmentally friendly attitude of students.

"To reduce the use of plastic waste, I have also made an agreement that I wrote in the poster, the content is about the rules for disposing of garbage in its place, the rules for class picket schedules and also rules for children to bring food containers and drinking places from home for snacks, then every Friday after gymnastics children are required to bring provisions from home and eat together in the field, But sometimes some do not bring. Maybe it's because the child feels bored or his parents don't have time to bring lunch." (interview, May 11, 2023)H

This is reinforced from the observational evidence that researchers obtained when conducting research. Researchers found an agreement poster posted on the wall of the classroom containing rules for protecting the environment.

In her role in shaping the green behavior of students, Mrs. Eva also provides sanctions to students who do not protect the environment by giving verbal sanctions in the form of reprimands and sanctions in the form of actions that make students feel deterrent. Here's a statement from Ms. Eva.

"Usually if there are students who skip class pickets, I always appeal to their picket colleagues to tell their friends if there are friends who do not picket, then next week the picket itself will not help." (interview, May 11, 2023)

3.2 Sub Discussion

3.2.1 Implementation of Education for Sustainable Development (ESD) at SDN Cakung Timur 02 Pagi

From the results of research and interviews with teachers and principals, it is known that teachers and principals do not really understand the concept of ESD. It is undeniable that there are still many teachers or principals who do not understand the concept of ESD so that the achievement of ESD is less than optimal. This is because there is no explicit policy from stakeholders regarding ESD that can be used as a reference for developing programs and implementing ESD at the education unit level.

This finding is supported by research (Rahman, 2021) which shows that in reality there are still many who do not understand in applying the concept of ESD to learning, this is because there is still a lack of teacher understanding of ESD, it can be estimated that approximately 66.7% of teachers still do not know what the concept of ESD is, the cause is the absence of further socialization about ESD. The same thing was also found by (Nurjanah, 2019) in her research which found that there are still many teachers who do not understand the concept of ESD, even though in everyday life the cultivation of the concept of ESD has been taught to students starting from the problem of waste, air pollution and natural disasters. Similar results are also shown by other studies conducted by (Shantini, 2016) in his research found that the implementation of ESD in Indonesia is still not carried out optimally, although in Indonesia itself the implementation of ESD is not new. Although efforts to implement ESD are already underway in schools, there are still a number of factors that hinder its success. To improve the effectiveness of ESD implementation, there is a need for training efforts for teachers on the importance of sustainable and environmentally sound education.

The ESD concept at SDN Cakung Timur 02 Pagi is a lesson that is expected to encourage school residents, especially students, by integrating learning oriented to the principles of sustainable development. Which is integrated into intracurricular, co-curricular activities in the form of tasks to create ESD projects, extracurriculars, and strengthening school culture. Similarly, SDN Cakung Timur 02 has implemented ESD values through intracurricular lessons contained in the subject matter, co-curriculars created ESD projects

by creating a garden behind the school, and extracurricular activities such as scouting, although it does not directly state to be an ESD-based school.

Based on the description above, it can be seen that ESD values have been implemented at SDN Cakung Timur 02 Pagi, although they have not been explicitly echoed. Through the application of ESD as one of the learning approaches, it is expected to realize students as a generation that has a sustainable mindset and life. This is in line with research conducted by (Ramadhan and Surjanti, 2022) in their research found that the ESD approach is one of the factors that contribute to the emergence of more environmental care attitudes of students.

3.2.2 Green Behavior of Class IV Students at SDN Cakung Timur 02 Pagi

Based on the results of observations and interviews conducted by researchers with several grade IV students at SDN Cakung Timur 02 Pagi, it is known that most students have been assessed to have enough green behavior. They have shown awareness and positive behaviors related to safeguarding and preserving the environment.

The results of observations and interviews also revealed that there are still grade IV students who do not fully understand and adopt green behavior. They may not have enough ecological awareness in maintaining and preserving the environment, especially in the environment of SDN Cakung Timur 02 Pagi. More integrated efforts from various parties, including schools, families, and communities, are needed to create an environment that supports the learning and practice of sustainability values and concern for the environment. As revealed by (Chrisnaji et al, 2021) in their research that character building cannot run alone without support from schools, parents and the community. This habituation is uninterrupted and must be synergistic and continuous so that a strong character is formed.

This is in line with research conducted by (Ismail, 2021) in his research found that in forming an environmentally caring character, it is necessary to involve all interests in education, both the family, school, school environment, and also the wider community. That way, it is hoped that students will be increasingly able to develop a friendly attitude towards the environment and contribute to preserving the environment for a better future.

Green behavior in grade IV students at SDN Cakung Timur 02 Pagi can be seen from the activities carried out during the learning process. From the observations that researchers made during the study, it is known that most students do not bring provisions from home. However, many students bring tumblers from home. Although there are some students who bring drinks using plastic bottles that they buy at stalls. Researchers also saw that students prefer snacks in the school cafeteria and buy snacks outside of school. In addition, researchers also conducted interviews with students in class IV it was found that there were students who were lazy to follow class pickets, lazy to take care of plants, lacked awareness in saving water and lamps, throwing garbage in desk drawers or storing it in pockets and students preferred snacks outside using plastic and Styrofoam packaging that was not environmentally friendly.

This finding is similar to the results of research conducted by (Ramadhan and Surjanti, 2022) it is known that the level of awareness of students towards the school environment is still lacking. This can be seen in classrooms that are messy after Teaching and Learning Activities (KBM), garbage that is thrown carelessly, class picket assignments are not carried out, garbage is often found in desk drawers and throwing garbage in the classroom. Furthermore, the same thing was also found by (Kurniasari and Mandela, 2019) in their research it was known that the green behavior of students was still lacking. This can be

seen from the indifferent attitude of students towards garbage because they think garbage is the responsibility of school guards. The need for more integrated educational efforts on environmental issues, learning approaches that encourage active participation and direct experience, and collaboration with families, schools, and communities in creating environments that support sustainable behavior.

3.1.3 The Role of Teachers in the Formation of Green Behavior of Class IV Students at SDN Cakung Timur 02 Pagi

Based on the results of observations and interviews conducted by researchers, it was found that the role of Mrs. Eva as homeroom teacher has been instilled in students through the provision of environmentally oriented learning materials, environmentally oriented learning activities, emphasis on environmentally oriented habituation and the provision of sanctions and reprimands to students who do not protect the environment. The role of teachers in providing learning materials is to associate the learning material with one of the components of ESD, namely environmental issues. Usually, the subject matter about the environment has been contained in the content of lesson themes at school.

This is similar to the results of research conducted by (Afandi, 2013) which shows that education about the environment can be integrated through the field of study in schools, through the educational process it is expected to help every student as a member of the community with awareness and sensitivity to environmental problems. Similar to research conducted by (Rezkita & Wardani, 2018) suggests that integrating environmental values in intracurricular activities with teachers inserting topics or environmental issues in certain subjects so as not to interfere with the learning objectives to be achieved. Furthermore, environmentally oriented activities and habituation are integrated with school programs through making class agreement posters containing rules in maintaining the classroom environment, encouraging students to make a habit by bringing food containers when snacking to reduce plastic waste and other activities.

The role of teachers in sanctioning students who do not protect the environment is by giving light sanctions in the form of verbal reprimands or physical sanctions in the form of actions. Teachers continuously reprimand students who do not protect the environment with the aim of forming ecological awareness in students. However, if the reprimand does not succeed in changing the behavior of students, physical sanctions can be considered as the next step. An example of physical sanctions given by teachers is by giving tasks to students who do not protect the environment, such as collecting as much garbage as possible around the school or picketing themselves as a consequence of skipping pickets. In fact, to form green behavior in students is not as easy as expected, there are many difficulties that teachers get while educating students about green behavior. One of them is the inconsistency of students in protecting the environment. Despite daily reminders and advice as well as reprimands and sanctions to students, there are still some of them who have not shown a caring attitude towards the environment (green behavior). This can be seen from students who are caught littering in class, waste used snacks stored in desk drawers, students do not bring drinking bottles or food containers from home and other activities that are not pro-environment.

This finding is in line with the findings of (Wulandhari et al, 2019) who also got the same results in their research found that in instilling the character of caring for the environment of students, not all can run smoothly. There are several obstacles that occur in instilling environmental care values such as the economic condition of students and not all students carry out environmental care activities continuously

Similar to research (Rezkiti & Wardani, 2018) which reveals that the character of students is not formed instantly. Therefore, it must be instilled continuously through character strengthening involving classes, schools and communities.

This finding is also supported by findings (Vioreza et al, 2021) which show that teachers and other education practitioners are expected to foster the character of environmental care (ecoliteracy) of elementary school students by developing teaching materials based on local wisdom that are packaged using objects, events, and problems that are close to children so that the learning that occurs is expected to be more meaningful and can be implemented by learners in their lives.

No.	Form of Green Behavior of Students	Form of Non-Green Behavior of Students
1	Enthusiastic about planting trees in the school garden	Lazy to care for trees in the school garden
2	Throwing trash in the trash	Storing trash in desk drawers and in pockets of shirts or pants
3	Bring lunch and food containers from home	Snacks use plastic packaging and Styrofoam which is not environmentally friendly
4	Bring a tumbler water bottle from home	Buy mineral water or multicolored drinks with plastic packaging
5	Enthusiastic about participating in cleaning activities at school and enthusiastic about picketing classes	Skipping class pickets and being lazy to participate in cleaning activities at school
6	Save water and electricity energy use	Leaving the classroom lights on during the day and using sink water excessively
7	Enthusiastic about making crafts from used goods	Lazy to do the 3r (reuse, reduce, recycle)
8	Sorting organic and organic waste	Throwing garbage anywhere

From table 1 shows that peseta didik has awareness in doing green behavior even though it is not optimal. The students who carry out non-green behavior activities are caused by the lack of awareness of students in protecting the environment.

3 CONCLUSION

The conclusions from the results of research on the application of Education for Sustainable Development (ESD) in shaping the green behavior of Grade IV students at SDN Cakung Timur 02 Pagi are 1) Teachers and principals have not fully understood the concept of ESD due to lack of explicit policies from stakeholders in schools. However, ESD values have been integrated into learning through subjects and extracurricular activities, although they have not expressly made school the basis of ESD; 2) The green behavior of students tends to be good, shown through activities such as carrying drinking containers, picking up garbage, and protecting the environment. However, some students still need to raise awareness in protecting the environment, as seen from the habit of littering and excessive use of plastic; 3) The role of teachers in shaping the green behavior of students is quite optimal. Teachers have successfully instilled environmental awareness through various approaches, such as environment-oriented learning and promotion of the use of food

containers. Teachers also encourage participation in practical activities and sanction them as a form of responsibility and awareness of the environment.

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