



Sustainable Lifestyle Project: An Empirical Study

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Abstract. The era of globalization needs to be balanced with sustainable changes in people's lifestyles to create a balance between the environment and the quality of human life. Sustainable living habits need to be implemented from an early age and involve education to provide understanding, habituation and environmental awareness. The main aim of this research is to examine the extent to which sustainable lifestyle project learning is implemented in elementary schools to increase environmental awareness in students. The method used in this research is descriptive qualitative. The researcher chose this method to describe the conditions that will be observed in the field regarding sustainable lifestyle projects. The instruments used in this research were interviews and observations. Interviews were conducted with teachers in several public and private elementary schools in Bandung City, while observation sheets were used to see the implementation of sustainable living style projects. This research involved 7 state elementary schools in the city of Bandung which were selected randomly. The data obtained was analyzed qualitatively based on the results of interviews and observation sheets of schools that had implemented sustainable lifestyle projects. The results of the research show that there is an increase in sustainable lifestyles among students in implementing sustainable lifestyle project-based learning which is able to provide students with an understanding of becoming environmentally literate and changing their lifestyle to care about the environment.

Keywords: Sustainable, learning project, environmental issues.

1 Introduction

Sustainable development is development that aims to meet current needs without reducing the ability of future generations to meet their needs [1]. Sustainable lifestyle According to the United Kingdom, GGSL is a lifestyle that is environmentally conscious and aware of the consequences of the choices it makes, so that it will make choices that have the least negative potential. A person's lifestyle can influence their level of awareness of the environment. Someone who has an environmentally conscious lifestyle will pay attention to the impact of their behavior on the environment when carrying out any activity. Their interests will be focused on everything that is environmentally friendly and their opinions will also be focused on saving the environment [2].

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In the current global era, the issue that is starting to be felt and starting to become the main focus is environmental problems and sadly, environmental damage is the result of human behavior [3]. People's arbitrary behavior towards the environment has a negative impact and causes discomfort to the environment. Apart from that, consumption behavior that causes waste is part of environmental damage. [4]World governments have put forward various solutions to provide understanding to society so that they are environmentally literate and this has given society awareness that human behavior plays an important role in resolving the environmental and sustainability crisis, the climate emergency, and current crisis. The formation of a character who cares about the environment needs to be implemented from an early age to form a generation that cares about the environment in the future. [5]. Santrock suggests that behavioral schemes (physical activity) and mental schemes (cognitive activity) develop in childhood, so it is very appropriate that various things begin to be developed in childhood, including getting used to a sustainable lifestyle. [6]. Knowledge and attitudes towards the environment begin to form in early childhood, and environmental awareness acquired in this period has an important influence on positive attitudes and behavior towards the environment in subsequent years. [7].

Education for sustainable development is increasingly important and is at the heart of transition solutions towards a sustainable future. Environmentally sustainable development has been recognized as a necessary tool to achieve change from our current state towards a more sustainable future, while also becoming an educational imperative in professional teaching [8]. In line with sustainable education which aims to shape the character of society to be more environmentally literate. The Indonesian education system is undergoing a transformation, the government of the Republic of Indonesia has changed the national education system by making character the foundation apart from looking at intelligence in terms of knowledge, because with strong and high personalities and skills, students can excel in facing problems, challenges and life's needs. [9]. Character formation as a curriculum objective includes the character of caring for the environment by changing lifestyles. In the Independent P curriculum there is a project to strengthen the Pancasila student profile which is outlined in project-based co-curricular activities, which are then designed to achieve competencies and character in accordance with the Pancasila student profile based on Graduate Competency Standards [10].

There are six themes in the Strengthening Pancasila Student Profile Project, one of which is sustainable lifestyle. The sustainable lifestyle theme aims for students to understand the impact of human actions, both long and short term, on world survival. Students will build self-awareness to act and behave in a caring way towards the environment, understand the potential for a sustainability crisis that will occur in their environment so that students are ready to face and try to reduce existing risks. Several schools in the city of Bandung have implemented sustainable lifestyle projects, namely P5 project-based learning which raises environmental issues adapted to the conditions and location of the school. The Sustainable Lifestyle Project provides students with the opportunity to improve their creative thinking abilities and form sustainable behavior

based on the experience they have gained so that they are able to produce a product from the development of students' creative ideas and it is hoped that this can become an innovation in solving environmental problems. Sustainable behavior can be defined as a series of human activities aimed at preserving and protecting the physical and social environment, thereby contributing to the quality of life of present and future generations without endangering the resources of the biosphere,[11]. Follem et all [12]proposed a model that describes sustainable behavior as a phenomenon consisting of four types of behavior: pro-ecological, frugal, altruistic, and fair. In this case, proecological behavior aims to maintain and conserve natural resources (eg recycling, water conservation, energy saving behavior). It is considered to be a mixture of self-interest (e.g. minimizing risks to one's own health) and concern for others, future generations, and other species [13]. Frugal behavior is considered the most basic characteristic of sustainable lifestyle behavior. They oppose consumerism and waste because they refer to a voluntary reduction in consumption levels [14]. Therefore, this research aims to determine the extent to which sustainable lifestyle project learning is implemented in elementary schools to increase environmental awareness in students.

2 Method

This research uses a qualitative descriptive research type. The reason the researcher chose this method was to describe conditions in the field related to sustainable lifestyle projects which would be directly observed in the field specifically and in depth. The subjects of this research were 7 school teachers from 4 state elementary schools and 3 private elementary schools in the city of Bandung. Therefore, for research purposes, the identity of the school is kept confidential by being given the alphabet code AG. The research instruments used were interview and observation guidelines. The interview instrument consists of 10 questions containing indicators of sustainable lifestyle projects that are adapted to the Pancasila student profile project, including regarding what was created, the implementation of the project and the resulting products. Likewise with the observation sheet which contains the implementation of the learning project carried out by the researcher during the learning implementation. These interview questions were validated by two experts in the fields of project learning models and environmental education. The interview contains 10 questions regarding the dimensions of the Pancasila student profile project, the approach and model used, the project. The data analysis technique used is data collection, data reduction, data presentation and drawing conclusions.

3 Results & Discussion

3.1 Results

In the description of the results of this research, research data obtained in the form of observations and interviews is presented. Observations were carried out when the

sustainable lifestyle project learning was being implemented. Interviews were conducted with teachers by asking a number of questions and then explaining them in the form of written descriptions. The data obtained from the research results are as follows.

Table 1. Data obtained from the research results

Question	Interview result answers
What topics are chosen in learning sustainable lifestyle projects?	<p><i>"The dimension we chose in the sustainable lifestyle project is creativity. By implementing sustainable lifestyle project learning, it is hoped that students can develop creativity through creative ideas that are created to produce a product that is useful, especially in the use of waste processing."</i> (Private School Teacher A).</p> <p><i>"The dimensions chosen are the dimensions of environmental literacy and creative problem solving. The four teachers argued that through project learning children would be directed to become accustomed to being responsible for the environment by changing their lifestyle to save energy and reduce waste use. Apart from that, children can also be trained to think about solving problems through their creativity in making something that can contribute to the environment so that it becomes an innovation,"</i> (Teacher at D elementary school).</p>
What topics are chosen in learning sustainable lifestyle projects?	<p><i>"The topic we chose in this learning project is the topic of waste management by reducing the use of plastic, and making eco enzymes, as an effort to change habits in life,"</i> (Private Elementary School Teacher C)</p> <p><i>"The topic we chose in this project is making objects that can produce electrical energy. Apart from that, we are also starting to get used to going to school using public transportation or walking and starting to bring food from home,"</i> (Teacher at F elementary school)</p>
How to implement, project work system?	<p><i>"The project work system is carried out using a block system at the end,"</i> (Public & Private Elementary School Teacher).</p>
What learning model is used and what are the stages of the model?	<p><i>"The learning model that we apply is project-based learning in accordance with the independent curriculum guidelines and stages in accordance with the PJBL model with 6 stages of the learning process including; Determining fundamental questions, designing project plans, preparing schedules, monitoring and evaluating students and the progress of projects being carried out, testing results, evaluating experiences. And at the end, students will present the products they produce and exhibit them in project P5 with the theme of a sustainable lifestyle "</i> (Teacher at E elementary school)</p>
Who are the parties involved in formulating the project?	<p><i>"The parties involved are teachers, students, the school and parents who also support the learning program because at the end of the learning there will be an exhibition of project products which will be displayed and socialized by students,"</i> (Private B Elementary School Teacher)</p>

Question	Interview result answers
How to measure the dimensions of the Pancasia Student Profile?	<i>"Measurement of the dimensions of the Pancasila student profile is measured from the learning process and assessment of the products produced."</i> (Private G Elementary School Teacher)
What learning model is used and what are the stages of the model?	<i>" The learning model that we apply is project- based learning in accordance with the independent curriculum guidelines and stages in accordance with the PJBL model with 6 stages of the learning process including: Determining fundamental questions, designing project plans, preparing schedules, monitoring and evaluating students and the progress of projects being carried out, testing results, evaluating experiences. And at the end, students will present the products they produce and exhibit them in project P5 with the theme of a sustainable lifestyle "</i> (Teacher at elementary School E
Who are the parties involved in formulating the project?	<i>" The parties involved are teachers, students, the school and parents who also support the learning program because at the end of the learning there will be an exhibition of project products which will be displayed and socialized by students,".</i> <i>" Evaluation of project results is carried out in the learning process through non-test assessments to see changes in environmental care attitudes and changes in student lifestyles every day, in measuring teacher creativity to see the products produced and the results of student presentations at the end of project implementation regarding the usefulness of products produced based on ideas - ideas created, in evaluating knowledge the teacher provides an evaluation test to determine the extent of children's understanding of sustainable lifestyles."</i>
How are project evaluation results carried out?	<i>"The results show that the implementation of the sustainable lifestyle project is able to change students' understanding of caring for the environment and also change the behavior of students who are ecologically literate, bad habits towards the environment are slowly changing into behavior that can be a solution to environmental problems including changes to sustainable lifestyles,"</i> (Private Elementary School Teacher C).

The research results show a change in students' habituation of a sustainable lifestyle. Before carrying out the research, when the researcher made observations, it was seen that there were still some students who seemed indifferent to the environment and their lifestyles did not show a sustainable lifestyle. Students tend not to save energy, do not think when buying products that produce plastic and do not make the effort to think critically when faced with environmental problems. After implementing sustainable lifestyle project learning, students are required to get used to saving energy, processing waste, producing objects that can save energy so that their lifestyle in daily activities begins to show concern for the environment. Another thing that is more important is

that students are able to think critically and creatively in solving environmental problems and producing products.

3.2 Discussion

Project-based learning is effective for developing the skills needed in the 21st century because it emphasizes critical thinking processes as well as problem solving, interpersonal communication, information and media literacy, cooperation, leadership and working in teams, innovation and creativity. [15]. Project-based learning is part of constructivist learning theory, which according to Dewey, learning from experience is the best way for students to gain knowledge, [16]the concept of sustainable development means that humans are forced to be wise in development by increasing resources more efficiently so that they can meet current needs. This is without reducing the rights and needs of future generations[17]

Sustainable lifestyle projects can form sustainable or ecological behavior so that a person is able to maintain and preserve natural resources (for example recycling, water conservation, energy saving behavior. Therefore, as stated by Lopez, Orro, and Novales, it is [18]our responsibility as humans to ensure sustainability, that is, ensuring that we meet our needs without compromising the ability of future generations to meet their needs. Environmental care expresses general attitudes towards the quality of the environment which is manifested in the willingness to express actions that can improve and maintain the quality of the environment in every behavior related to the environment [19]. The implementation of a sustainable lifestyle project is part of the solution in solving environmental problems in the formation of an environmentally caring character that is appropriate for elementary school students so that they can get used to a sustainable lifestyle from an early age and have it ingrained in them to behave pro-environmentally.

4 Conclusion

The project results produced through sustainable lifestyle learning have a positive impact on changing students' lifestyles to be more concerned about the environment and able to improve various aspects of knowledge. The results of the sustainable lifestyle project carried out in 7 public and private elementary schools can improve a variety of 21st century skills in solving environmental problems and can enable students to change their lifestyle to be more concerned about the environment, which requires in-depth knowledge of the study that will be carried out, namely regarding the importance of One way to protect the environment is through waste management. Save energy, reforest and collaborate with waste management communities. Students will gain a lot of knowledge that can improve their thinking skills for problem solving. Apart from that, students will have varying points of view based on the results of their

knowledge so they will be able to create ideas in making things. a product based on his creativity.

References

1. Cahyani, F. A.: Upaya peningkatan daya dukung lingkungan melalui penerapan prinsip sustainable development berdasarkan undang-undang nomor 32 tahun 2009 tentang perlindungan dan pengelolaan lingkungan hidup. *Journal of Indonesian State Law Review* 2(2), 168-179 (2020).
2. Neolaka, A.: *Environmental awareness*. Rineka Cipta, Jakarta (2008).
3. UNESCO.: Education for sustainable development for 2030 toolbox. 2020. [Online]. Available: <https://webarchive.unesco.org/web/20231008000337/https://en.unesco.org/themes/education-sustainable-development/toolbox>. [Accessed December 2023].
4. Sabrina, H., Tarigan, E. D. S., Nasution, A. M. U., Parulian, T.: Pengaruh gaya hidup dan pengetahuan terhadap keputusan pembelian produk ramah lingkungan di kota medan. *Jurnal Institusi Politeknik Ganesha Medan* 5(1), 67-77 (2022).
5. Ismail, M. J.: Pendidikan karakter peduli lingkungan dan menjaga kebersihan di sekolah. *Guru Tua: Jurnal Pendidikan Dan Pembelajaran* 4(1), 59-68 (2021).
6. Santrock, J. W.: *Educational Psychology*. McGraw-Hill, New York (2017).
7. Ardoin, N.M., Bowers, A.W.: Early childhood environmental education: A systematic review of the research literature. *Educational Research Review* 31, 1-16 (2020).
8. Komisi Nasional UNESCO Indonesia.: Pendidikan untuk pembangunan berkelanjutan di indonesia implementasi dan kisah sukses, Kemendikbud, Jakarta (2014).
9. Suma, P. K., Yunitasari, N.: Pengembangan modul project penguatan profil pelajar pancasila. *Proceeding Senadimas Undiksha 2022*, pp. 16-22. Universitas Pendidikan ganesha, Bali (2022).
10. Maulida, U.: Gaya hidup berkelanjutan melalui profil pelajar pancasila. *Jurnal Pemikiran Dan Pendidikan Dasar Islam* 6(1), 14-21 (2023).
11. Verdugo, V. C., Acosta, J.F.M., Fonllem, C.T., Sing, B.F.: Happiness as a correlate of sustainable behavior: a study of pro-ecological, frugal, equitable and altruistic actions that promote subjective wellbeing. *Journal Human Ecology Review* 18(2), 5-104 (2011).
12. Fonllem, C.T., Verdugo, V.C., Sing, B.F.: Sessing sustainable behavior and its correlates: a measure of pro-ecological, frugal, altruistic and equitable actions. *MDPI Journal* 5(2), 711-723 (2013).
13. Bamberg, S.: Effects Of implementation intentions on the actual performance of new environmentally friendly behaviors - results of two field experiments. *Journal Of Environmental Psychology* 22(4), 399-411 (2002).
14. Verdugo, VC., Acosta, JM., Fonllem, CT., Sing, BF.: Happiness as correlate of sustainable behavior: a study of pro-ecological, frugal, equitable and altruistic actions that promote subjective wellbeing. *Journal Human Ecology Review* 18(2), 95-104 (2011).
15. Almulla, MA.: The Effectiveness of the Project-Based Learning (PBL) approach as a way to engage students in learning. *SAGE Journals* 10(3), 1-15 (2020).
16. Dewey, J.: *Democracy and Education: an introduction of the philosophy of education*, The Macmillan Company, New York (1964).

17. Brundtland, G.H.: Report of the World Commission on Environment and Development: Our Common Future. United Nations, New York (1987).
18. Lopez, JBP., Orro, A., Novalés, M.: Environmental impact of mobility in higher-education institutions: the case of the ecological footprint at the university of a coruña (spain). *MDPL Journals* 13(11), 1-18 (2021).
19. Tamara, R. M.: Peranan lingkungan sosial terhadap pembentukan sikap peduli lingkungan peserta didik di sma negeri kabupaten cianjur. *Jurnal Pendidikan Geografi* 16(1), 44-55 (2016).

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