

Ecopedagogy-Based Teaching Materials Development to Train Social Skills and Sustainability Awareness of Grade IV Elementary Students

Sriwianti^{✉1}, Mubiar Agustin²,

^{1,2} Fakultas Pendidikan Dasar, Universitas Pendidikan Indonesia, Bandung, Indonesia

✉ sriwianti@upi.edu

Abstract. Humans with all their activities in meeting the needs of life make the condition of the earth increasingly fragile. This condition is exacerbated by destructive behavior and lack of human consciousness which is essentially as a multidimensional being has a reciprocal relationship with nature. This has an impact on the erosion of environmentally friendly life which is part of ecopedagogy at various levels of life. Based on early studies the lack of availability of teaching materials books specifically to train social skills and sustainability awareness of elementary school students. Teaching materials are an important component in learning used by teachers in the process of teaching and learning activities or as a source of learning that can help students in learning. The method used in this study is a literature review that tries to delve deeper into the importance of developing ecopedagogy-based teaching materials to train the social skills and sustainability awareness of elementary school students supported by the results of previous research. The results show that efforts are needed to develop teaching materials to fit the needs and be able to train social skills and sustainability awareness of elementary school 4th grade students.

Keywords: Teaching Materials, Ecopedagogy, Social Skills, Sustainability Awareness

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INTRODUCTION ~ The paradigm of issues that develop in the 21st century relates to global issues, one of which relates to the environment. The environment is not only a place to live, it is not uncommon for even humans to think of it as access to prosperity. But in fact more than that, the living environment is the productivity of the synergy of the universe in which there is a contact of life between nature and the behavior of living things. In line with the affirmed by Misiaszek (2012) that humans are considered part of planet Earth.

Sustainable development proclaimed by the government through the Ministry of Education in Indonesia is increasingly an important highlight in education. Based on Law No. 20 of 2003 Sisdiknas,

education has an important role in shaping the next generation of the nation that is intelligent and reliable in the implementation of the development of national life. Sustainable development through education is an effort to empower individual learners to participate and be responsible for creating a sustainable future. Agenda 21, proclaimed at the United Nations Conference on Environment and Development (UNESCO), provides a clear picture and direction of sustainable education or known as Education for Sustainable Development (ESD).

Education for Sustainable Development (ESD) has long been a topic of discussion even since 1992 that contributes to the acquisition and practice of knowledge, values, and skills that ensure the

economic, social, and environmental balance of sustainable development as an effort to progress in the lives of individuals and communities (UNESCO, 2014). ESD is an educational vision that applies the concept of sustainable development to develop knowledge and skills by changing the orientation of values, behaviours, and lifestyles through interdisciplinary and overarching approaches in the present and the future. ESD has a futuristic nature content that empowers individual learners in making attitude decisions and actions towards the environment for the future. The issues that are the scope of ESD have a connection with global issues related to the sustainability of human life (Bayu, 2015).

Humans and the environment will continue to experience reciprocal relationships during life so that human development in the educational process is not separate and will always be related. It has practical implications for human obligations always to maintain harmony, harmony, and continuity with nature (Muhaimin, 2015). Agustin et al. (2021) stated that attitudes and behaviours of caring for the environment are common attitudes towards environmental quality that can be idealized through a willingness to express actions that can improve and maintain the quality of the environment in any behaviour that has a relationship with its environment. The current condition of the earth is very worrying, disasters in various places, damaged natural conditions until the problem of waste becomes a daily phenomenon caused mainly through human indifference while the issue of environmental damage is one of the ten threats officially warned by the High-

Level Threat Panel of the United Nations. The findings of the study conducted by Hendrawan, Nugraha, & Nugraha (2020) stated that one of the factors that can affect the ecological awareness of learners is the elimination of PLH subjects in the 2013 Curriculum. In addition, there is also a lack of PLH learning resources both from the aspect of educators and from learning sources or commonly known as teaching materials in the form of textbooks on ecopedagogics and the destructive behaviour of learners.

Environmentally friendly living is one of the learning topics that UNESCO says can be integrated into ESD, listed in point 4, which is "utilizing, caring for and improving our natural conditions". In line with education in Indonesia which organizes character education by placing caring characters and love of the environment. Various ways can be done in the form of learning methods, the development of teaching materials, and learning approaches to achieve the results of creating humans who have the skills, awareness, and character of caring and love of the environment. One of the efforts that can be applied in primary school learning to cultivate that character in students is through an ecopedagogy approach.

Ecopedagogy is an approach to learning that makes students as independent, autonomous learners, able to develop learning potential based on experiences brought from outside the classroom and realize that every action impacts themselves and their environment (Gaddoti, 2010). As an ecopedagogy learning approach supported by critical theory and critical pedagogy (Supriatna, 2017). Ecopedagogy has four teaching

systems: (1) prepare environmental-related texts for children; (2) lead students to an awareness of their relationship to the environment, both social and natural; (3) adapt classroom tasks, writing exercises, group work, experiences, agreements with society to incarnate knowledge into social action, environmental justice, welfare and sustainability; and (4) inter-relationship between sustainable beings (Surata, 2010). The position of humans in ecopedagogy is in the necessity of being literate of critical issues and providing effective and wise solutions related to the environment both in the human environment and in the global environment. Implementation of ecopedagogy-based learning needs to be developed based on principles and a comprehensive approach through multiplayer learning, emphasizing the development of contextual materials, learning-oriented to student participation in solving problems cooperatively and collaboratively, and learning should be based on an interdisciplinary approach to enrich students' knowledge and understanding. Agustin et al., in their research, asserted that one of the efforts or ways of teachers in developing environmental care attitudes is to connect the nature of science to be directly involved through simple science learning because connecting the nature of science can provide awareness to students of natural empowerment. Supriatna (2017) states that ecopedagogy is a new pedagogy that carries the concept of sustainability that prepares learners to have a far ahead of the importance of having life, independence, and justice to the interests of nature. Based on the exposure that has been developed, ecotourism is a learning approach that can

apply material understanding and skills to sustainable ecological awareness to coexist with nature at every lifetime.

The sourcebook created by the Ministry of Education contains much material that explains the importance of caring for the environment and loving the environment. However, unfortunately, few learning activities apply eco-generation to the maximum to instil character education and sustainable awareness that has a fixed impact. If you look at the material listed, it can be packaged applying ecopedagogi to the maximum, such as learning to complete eco team. The problem that arises is indicated as an impact due to the absence of teaching materials that present materials with efficient and innovative eco-based learning activities by emphasizing ecology to the daily life of students regularly.

Teaching materials have diverse meanings expressed by each expert, Prastowo (2014) explained that teaching materials are all materials (both information, tools and texts) that are systematically arranged that display the total figure of the competencies mastered by students and used in the learning process with the aim of planning and reviewing the implementation of learning. While according to Mudlofar (2012), teaching materials are all forms of materials used to help teachers and instructors carry out teaching and learning activities. Based on these two understandings, the meaning of teaching materials is a set of learning materials as a learning resource that can facilitate teaching and learning activities for teachers and students to achieve expected goals and competencies.

In addition to the problems that have been described, it is also a gap from previous research. Research conducted by Yusinta Dwi Aryani and Muhammad Nur Wangid (2016) with the title *Of Thematic Teaching Materials Development - Integrative Value-Based Character Cares for The Environment and Responsibility*. The research was conducted to produce integrative thematic teaching materials based on environmental values and responsibilities. Yunansah and Herlambang (2017), in their research under the title *Ekopedagogic-Based Education in Growing Ecological Awareness and Elementary school*, states that ecopedagogy-based education is a strategic effort to build a new paradigm as an effort to foster ecological awareness by preserving nature through the educational process and can develop student character. The research has the same topic that is related to the environment. However, from here, it can be seen the difference that the research will be conducted is to emphasize that the development of ecopedagogic based teaching materials to train social skills and sustainability awareness of students who are related to ESD by raising environmentally friendly topics plays a vital role to train social skills and sustainability awareness of students.

Based on these problems, it is necessary for the development of teaching materials considering the importance of the role of teaching material development as a learning resource and teaching source as an effort to train learners to have social skills and have a sustainable awareness in living their lives, in the hope of having a harmonious life with nature and society in the present and future.

METHOD

The method used in this study is a literature review, which attempts to delve deeper into the importance of developing ecopedagogy-based teaching materials to train the social skills and sustainability awareness of elementary school students supported by the results of previous research. According to Kartiningsih (2015) in his research stated that the method of a literature review is a series of activities related to the method of collecting library data, reading and recording, and processing research materials with the primary purpose of finding a foundation to obtain and build a theoretical foundation and frame of mind. The authors identified the problem through observations of ecoliteration teaching materials and interviews conducted at one of the public elementary schools in the Garut area and analyzed the results descriptively.

RESULTS

The research results were obtained thoroughly from the review of previous research literature related to the topic that the researcher raised.

Planting an understanding of the values of environmental love and environmentally friendly life needs to be done early on in school as an educational institution. As for how that can be done through transparency, repeated habituation, learning resources, and teaching methods carried out by educators. The understanding gained by learners must arrive at awareness and confidence to train the social skills and sustainability awareness of learners needed in living every line of life with nature.

The process of practicing social skills and sustainability awareness can be done through an ecopedagogy approach. This approach includes a variety of activities that concentrate on environmental alignment. Examples of activities that can be done in elementary school learning include the application of 3R (reuse, reduce, and recycle), eco team, green behavior, and habituation of environmentally friendly behavior.

Jhonson (2014) conducted an American study on children aged 2-5 years by introducing ecoliteration. The findings state that children will have ecological awareness when in one group playing activities in nature. These activities will grow green behavior such as wise in water use, caring for plants, and removing waste in its place.

Desfandi, Maryani, & Disman (2017) corroborates through their research that when one has realized very well the importance of the environment for life and the importance of maintaining and caring for the earth, nature, and the whole, then a person has entered the level of ecoliteration that is certain to have green behavior. As for the findings of the pattern of someone who has green behavior, namely having a behavior of respect for the earth, caring for the environment, wise in production and consumption, and wise in reproduction provided by nature.

Yunansah and Herlambang (2017) in their research, stated that ecopedagogy-based education is an approach oriented to the efforts of student multiplayer development meaningfully, which plays a role in the orientation of achieving a complete understanding of the nature of humans and nature that have essential

relationships that have implications for the growth of critical awareness and the awakening of the character of learners.

Nafisah et al. (2019), in their research that utilizes digital forms as a medium of learning, explained that ecopedagogic-based learning in the new normal era through learning media in digital form could foster learners' awareness in maintaining the balance of nature.

Utari, Yonanda, and Cahyaningsih (2020), based on their research, explained that through ecopedagogy, awareness about the importance of maintaining the environment is illustrated so that it has reached the level of ecoliteration. Thus, students realize how important it is to maintain and care for the earth, ecosystems, residential environment, and local wisdom present in the local environment. In addition to making learning more interesting because of the integration of local wisdom 'awik awik' into teaching materials, but also can arrange patterns and lifestyles that are in harmony with the natural environment to create sustainable culture and awareness.

In their qualitative research, Adela and Purnama (2020) stated that integrating environmental education through an ecopedagogy approach in IPS learning has an excellent impact on student attitudes and behaviors, which students show a lot of attitudes and behaviors caring about the environment. These attitudes and behaviors are beneficial both for the lives of learners and the creation of a generation that has concern for the environment. In addition, it has implications for the growth of critical awareness and the formation of student attitudes.

In the environmentally friendly concept, Rasyid and Muzaki (2019) stated that his research focusing on state elementary and private elementary school education facilities in Jakarta resulted in high success in implementing environmentally-friendly concepts both on the availability of facilities and quality improvement. It is also explained that with the integration of this concept, there is no difference in the success rate of implementation of educational facilities in public and private elementary schools. It can be concluded from the statement that students learn can accept environmentally friendly concepts in any school and can implement them practically in their daily lives. This is undoubtedly a good thing because, with good integration and delivery, it does not place students who live or school where they should, or more have environmentally friendly concepts. However, all students must and will be able to implement environmental concepts to survive the present and the future.

DISCUSSION

This research illustrates the importance of developing ecopedagogy-based teaching materials to train social skills and sustainability awareness of grade IV elementary students. The data that has been presented shows that overall both ecopedagogic-based education, integration of environmental education, and the use of ecopedagogic approaches into teaching materials can grow, build, to improve environmental attitudes and concerns shown by changes in behavior patterns at a high level. Learners predominantly have the awareness to maintain and love the natural environment. The formation of caring

environmental character is realized in the implementation of daily life in living a life that coexists with nature.

The concept of being environmentally friendly is also applied to the environment, nature, ecosystems, and society. It is instilled and implied in school facilities both in public elementary schools and private elementary schools. The results occupy a similar level of implementation togetherness between public and private elementary schools. This certainly brings the good news that success does not look at the place. It can even be concluded that all learners will be able to implement environmentally friendly concepts in various aspects of life.

CONCLUSION

Through the discussion mentioned above, the conclusion obtained from this study is that the development of ecopedagogy-based teaching materials is critical to do considering the benefits and positive impacts produced are many and sustainable. There needs to be an effort to develop teaching materials to fit the needs and train social skills and sustainability awareness of elementary school 4th-grade students. The development of teaching materials in question will undoubtedly provide a positive impact and make students closer to nature and appreciate the natural environment as their place of residence. Based on the exposure that has been delivered, the solution offered to overcome the problems present is to provide an understanding of the current condition of teaching materials so that ecopedagogy-based so that environmentally friendly life can be implemented in the hope that social skills

and sustainability awareness of learners can be trained from elementary age.

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