



Embedding Ecological Awareness Through Ecopedagogy Approach in Social Learning Elementary School

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Abstract. The purpose of this study is to determine the extent of the implications of learning on the formation of character education that one aspect of the attitude of environmental care. The subjects of this study, which employs the qualitative method, are the pupils of fourth class in social learning. This approach is applied to instill an environmental caring attitude which includes improving students' competence regarding, 1) non-renewable natural resources, 2) participatory attitude in environmental care, and 3) skills in reducing and reusing products that derived from natural resources. The results showed that through the process of dialogue with interviews conducted with the parties related to this research and the practice of students showed improvement in environmental caring behavior such as 1) skill in disposing of garbage in place, 2) organic and inorganic trash should be separated, 3) taking part in caring for school parks; 4) reducing plastic packaged consumer goods; 5) not taking actions that could damage the preservation of the environment such as not removing crops and not vandalizing.

Keywords: Ecopedagogy · Ecological Awareness · Social Learning

1 Introduction

Global warming is the impact of depletion of the ozone layer in the atmosphere, resulting in a variety of emerging environmental problems such as melting ice in the Arctic and South, the occurrence of acid rain, natural resource crises, uncertain climate change, floods, and at the same time there is also drought in some areas, thus indicating further erosion of nature sustainability. This is not only a local and national problem but also a global problem that requires a serious commitment from every level of the world community in the effort to preserve the natural environment. The character of students is fundamentally shaped by their education, which helps them to always be sensitive to and concerned about the surrounding natural environment. According [1] learners should be equipped to respond to ecological crises by developing attitudes and concerns out of a sense of obligation to one another for a sustainable future.

Factually, growing an environmentally careful attitude not been achieved in its entirety. There are still many dirty schools, few students participate in environmental activities, few students are aware of how their behavior affects the environment,

students waste resources carelessly, and there is apathy toward environmental protection in the community. Therefore, according to [2] environmental attitudes encompass one's behavior aims, impacts, and beliefs that are related to environmental topics or activities. He also said that environmental attitudes can be utilized to anticipate how someone will conduct in relation to the environment.

Ecopedagogy can be interpreted as an academic movement to awaken the learners into an individual who has wisdom, discernment, and practicality in keeping with the objectives of nature preservation [3]. A person learns to trust values in their environment, which in turn influences his attitude. Ecological intelligence, according to [4] is how well we can change to fit the ecological niche we live in. When a person reacts to his or her environment in accordance with the values they uphold, in this case both the natural and social environments, that person's attitude can be seen [5].

Ecopedagogy, also known as *ekopedagogi*, is not a teaching strategy and is not the most effective way to teach about the environment. The ecopedagogical movement, on the other hand, is opposed to environmental education practices that stress transitory interest, isolate people from their environment, are not future-focused, and do not uphold the idea of continuity [6].

The cultivation of environmental attitudes of elementary school students with ecopedagogy approach in social learning is motivated by the high environmental damage in several places due to the high industrialization activity in most of these areas, such as air pollution, water, sound, and soil. The industrialization process using fossil fuel engines (petroleum and coal) is the largest contributor to global warming in the atmosphere. The cultivation of environmental cares through ecopedagogy approach is expected to prepare the students, especially in the research location to have the knowledge, attitude, and life skills that are friendly with the environment.

2 Method

The methodology for this study combines emancipatory action research in the classroom with a qualitative methodology. In accordance with the philosophical tenets of participatory action research (PAR), which emphasize self-emancipation, selfreflection, and self-awareness, own teaching practices that are more humane and just, and collaborative effort [7] this study was developed through dialogue processes and cooperative interviews between researchers with classroom teachers and research subjects. There were 124 students in grades IV, V, and VI involved. Researchers employed participant observation, in-depth interviews, and documentation as three independent data collection strategies to get information from the same source [8]. The variables in this study focused on observing students' environmental concerns as well as the skills to contribute to environmental conservation, such as 1) skill in disposing of garbage in place, 2) separating organic and inorganic garbage, 3) helping to maintain school parks, 4) avoiding using plastic packaging, and 5) refraining from acting in a way that could harm conservation of the environment such as not removing plants and not doing vandalism.

3 Result and Discussion

Based on the findings of participatory observation, indepth interviews, and documentation, learners show that they have a greater understanding of environmental issues by exhibiting behaviors that show concern for maintaining the school's cleanliness as well as for protecting both themselves and the environment they are in. This is because ecopedagogy [9] approaches environmental education from a holistic perspective that sees human nature as a part of nature. As stated by [10] if nature can be perceived as a place for individuals, it will be possible for individuals to be concerned and committed to nature conservation. Skills in disposing of garbage in place, sorting organic and inorganic waste, watering plants, and recycling paper and plastic waste can already illustrate a small portion of the students' caring attitude.

Conversations and interviews about environmental issues that people meet on a daily basis and the significance of adopting an ecologically conscious mindset were held between researchers, research subjects (students), and teachers. Pupils who use fossil fuels to commute to and from school. Additionally, they frequently notice trash mounds by the side of the road and in the area surrounding the school that is disposed of by the surrounding community. Such conditions can threaten their health a little more, then they already feel and witness the reality of the city environment around them [11]. Argues that learning in the class by applying the concept of local culture fosters the character of discipline and responsibility in students. The experience of such things can be incorporated into the social learning curriculum. Second, the pupils understood that a clean, ecologically conscious atmosphere was a welcoming place for them.

Instead, students will feel that dirty and polluting environments are a threat to their health both in the present and in the future. The school where the study has a large enough park however, there aren't many different kinds of flora, and the area hasn't been used to its full potential as an ecologically conscious open space in the educational setting. Ecological awareness open space ought to be included in every school as a way to reduce air pollution and as a tool for engaging pupils in the development of a caring attitude toward the environment. Highlights a number of the Earth Charter's core values, including respect for the environment, care for all living things, and adoption of patterns of production, consumption, and reproduction translate into several research actions to shape environmental attitudes, applicative is the Ecological awareness behavior of students in the following Table 1.

Learning through the use of used goods through the application of the 3R concept (reduce, reuse, and recycle,) not only describes ecological awareness and also the creativity of students in preserving the environment. In social learning, human and environmental learning it becomes a central theme, both in the selection of content, approaches, sources, and learning media. Applicative oriented social learning, developing thinking skills, and developing caring attitudes towards the social and natural environment. The growth of consciousness of environmental preservation in families, schools, and communities is the more crucial aspect of living in peace with nature. The following is the result of documentation of learning by integrating ecological wisdom in social learning with the ecopedagogy approach (Fig. 1, 2 and 3).

Environmental analysis is constantly concerned with how human actions affect the environment's ability to provide for all of its constituent parts. This viewpoint can be

Table 1. Key principles of Earth Charter

| Table Head | Key Principles | Ecological Awareness |
|-------------------|--|---|
| 1. | Sensitivity to the Earth | Place garbage there instead. Distinguish between organic and inorganic trash. Maintaining and planting trees around schools. Turns off power on unused space. Not doing vandalism in open spaces, especially Ecological awareness open spaces |
| 2. | Protect Life | Opt for organic food. While driving down the highway, wear a mask. Reprimand a friend for being unwelcoming. Avoid consumption of junk food. |
| 3. | Adopt Production, Consumption, and Reproduction Patterns | Reduce (minimize) the use of plastic bags. Use eco-friendly items. Use a rechargeable bottle for drinking water. Recycle paper. |

**Fig. 1.** Activity to Reserve the Used Goods

seen from a number of environmental elements, including biological, physiological, economic, and cultural influences, all of which are interconnected. Ecopedagogy experts criticize the practice of environmental education that more accommodate the interests of the modern world and the ideology of capitalism, imperialism, and neoliberalism that adversely affect the planet Earth where all living things are. The purpose of ecopedagogy is 1) to further illuminate the issues and worries regarding the interdependence of urban and rural areas' economic, social, political, and ecological elements; 2) to give everyone the chance to learn the skills, values, attitudes, and commitments necessary to safeguard and enhance the environment; 3) to instill new environmental behavior patterns in people, groups, and communities as a whole. Aspects of knowledge, attitude, awareness, skill, and involvement are among the objectives that must be met.



Fig. 2. Student creations from recycled waste



Fig. 3. Learning activities with learning resources around the environment

Ecopedagogy is a school of thought that includes Jurgen Habermas, Paulo Freire (from Latin America), Henry Giroux, and Richard Kahn as its pioneers. It is a branch of critical pedagogy, which was developed in Germany to educate Frankfurt School philosophers (United States). Critiquing the application of modern education that departs from the positivistic heritage and uses humans as a media production to gain power in a variety of disciplines so that it affects the growing exploitation of natural resources is one thing that becomes this thought. Restore humans to the idea of sustainability (sustainability), which is incorporated into education, as the essence of mankind as a human living in harmony with nature. The idea of sustainability as a learning tool offers students a broad perspective on the value of self-determination, justice, and better living in accordance with the environment.

It is related to the opinion that ecopedagogy directs everyone, especially students, to develop skills and strategies to accelerate responses to ecological actions [12]. Ecopedagogy can also direct and train students to instill a deeper curiosity about the issues of current environmental issues. Students are also expected to maintain the values of local wisdom embraced by the local community, therefore the need for learning that instills awareness of the students to the environment. This is as stated in the Core Competence 2 Permendikbud Number 57 of 2014 on the Curriculum of 2013 V grade Elementary School which contains “Show respect for his country, and behave with integrity and self-control when engaging with his family, friends, teachers, and neighbors”. Indicators of these attitudes become the basis for the development of other social attitudes, namely caring attitude and responsibility not only to themselves but care about each other and care about the physical environment (nature) as a place of learners grow and develop into part of the community.

Embedding a Ecological awareness attitude in the form of Ecological awareness behavior in accordance with the Earth Charter requires the establishment of an understanding of it first. Similarly [13] argues ecological dynamics, with its emphasis on the link between learners and the environment, provide a well-established model of learners’ learning that is suitable for the context of environmental education.

First, students learn about environmental concepts, natural resources that can and can not be updated, the concept of production, distribution, and consumption. The concept of these things is contained in the learning materials in class IV, so that for classes V and VI have received the concept in the previous class and can recall the knowledge. The next stage students are asked to seek information from parents about environmental issues surrounding the residence, especially the urban environment and their experiences related to the environment in everyday life, then encourage students to tell what they feel like air pollution, there is a lot of piling up garbage they encounter, the occurrence of floods, and so the heat of the air during the day as an indication of the depletion of the ozone layer in the atmosphere.

The next activity is to do 3R (reduce, reuse, and recycle), collect used paper and recycle into new objects that can be used as learning media such as embossed maps. This activity not only reduces paper waste but also helps reduce pollution caused by garbage. Involving students interacting directly with environmental conservation activities has implicitly established an attitude of responsibility as stated by [14] that Connecting to nature and spending time outdoors as children have been indicated as predictors of environmentally responsible behavior.

4 Conclusion

Learning with ecopedagogy approach in instilling environmental cares is one of the endeavors to get the next generation ready to be an environmentally conscious generation. Ecopedagogy-based learning is focused on achieving a thorough grasp of the fundamental connections between humans and nature, which calls for the development of critical awareness and the shaping of learners’ attitudes. Based on observations and interviews, students showed an increase in their understanding of environmental issues, showing behavior that cares about the cleanliness of the environment in which they live.

Behavior in the disposal of place organic and inorganic waste in their proper places, water plants, use two sheets of paper, and recycle paper, and plastic waste, and reducing consumption of non-environmentally-friendly products illustrates the competence of environmental attitudes to be invested in this research.

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