



Ecopedagogic Model: A Teacher's Approach to Implementing Learning in Elementary Schools to Foster Students' Critical Awareness of the Environment

Rijal Fatahidin

Sekolah Dasar Negeri Lamaransari
Jatireja Compreng 41258, Subang, Indonesia
E-mail : rijalfatahidin21@guru.sd.belajar.id

Abstract - Global environmental issues demand an educational approach that is not only informative but also transformative. Elementary schools are a strategic foundation in shaping students' critical awareness of the environment. This research aims to examine and offer an Ecopedagogic model as a basis for teachers in designing contextual learning that supports environmental sustainability. The method used is a literature study with critical analysis of literature and environmental policies. This research explores Paulo Freire's thoughts in critical pedagogy while integrating them with ecological issues and environmental education policies, particularly those initiated by the Governor of West Java, Dedi Mulyadi. The results of this study indicate that the Ecopedagogic model can serve as a transformative approach that not only teaches environmental knowledge but also fosters a character that cares for the environment in a contextual and reflective manner in elementary schools. The role of teachers is central in building learning that is based on local environments, participatory, and culturally valued. Dedi Mulyadi's policy on environmental preservation based on Sundanese culture serves as a concrete example of how education and local wisdom can synergize to shape students' critical character. This research recommends the integration of ecopedagogy into the elementary school curriculum, ongoing teacher training, and strengthening collaboration between schools and community practitioners as strategies for implementing sustainable environment-based education in elementary schools.

Keywords: Ecopedagogic Model, Critical Awareness, Elementary School.

I. INTRODUCTION

Massive environmental damage and global ecological crises such as pollution, deforestation, and climate change have become major challenges in human life as a consequence of exploitative ways of thinking and acting. According to Sterling (2001), education has a central role in shaping a new paradigm that favors sustainability. In line with this, education must be able to create human resource development, especially in Subang Regency in the future. In line with this, this problem does not only require a technological approach, but also a change in paradigm and human behavior in favor of sustainability. Elementary schools have an important position in shaping students' character and awareness of the environment from an early age. So that it has an impact on the new perspective of parents and society towards the virtues of a sustainable environment. One alternative but strategic approach in creating future generations of Subang who care about the environment is through environment-based education that is implemented from an early age, especially in elementary schools.

However, environmental education that has been running so far is often trapped in a purely cognitive approach without touching the aspects of critical awareness and real actions of students, let alone imprinting into a character and values that are adopted into a local wisdom. Therefore, a learning model that is reflective, contextual, and transformative is needed, namely the ecopedagogic model. Ecopedagogics as a form of critical pedagogics that is oriented towards the environment, offers a new framework for teachers in integrating learning

with ecological values. Ecopedagogics is an educational approach that combines the critical science of education with an environmental perspective. In the local context, as an example in the neighboring district of Purwakarta Regency, the environmental policy that was launched by West Java Governor Dedi Mulyadi when he served as Regent, is an example of the importance of integrating cultural values and local wisdom in shaping the character of environmental care. Dedi Mulyadi promoted Sundanese culture-based environmental preservation policies such as tree planting movements, plastic bans, and the development of child-friendly green public spaces.

In other words, it is not just imitating the past model, but adopting the sources of value contained in environmental elements in Subang Regency which can be embodied into an Education Movement that echoes, especially at the level of basic education units, so it is only natural that through regional apparatus organizations engaged in the field of education it is necessary to explore a new paradigm related to the Green Curriculum Policy which should actually be initiated and sustainable in the Subang Regency area. At the very least, it requires educators in Subang Regency to present environmental problems as something that must be considered together which is integrated into various subjects at school through learning experiences in the classroom. In addition to the expected impact on improved student learning outcomes, this policy also emphasizes the importance of early environmental character building through formal and informal education, including in the realm of education in primary schools.

literature study method. Data was collected through searching and analyzing secondary sources in the form of books, journal articles, policy documents, and policy

II. RESEARCH METHODS

This research uses a qualitative approach with a

publications of the Governor of West Java Province in the environmental field. Data analysis was carried out using content analysis techniques, namely identification, categorization, and thematic interpretation of relevant documents and literature studied.

III. RESULTS and DISCUSSION

1. The Concept of Ecopedagogic Model and its Relevance in Primary Schools

Ecopedagogic comes from the thoughts of Paulo Freire, who emphasized education as a process of liberation from oppression, including oppression of nature and other living things (Freire, 1970). The ecopedagogic model also refers to education that is reflective and liberating, aims to form ecological awareness and social responsibility and encourages students to understand the relationship between humans, culture, and nature holistically and critically Yunansah & Herlambang, 2017). This is in line with what Gadotti (2010) stated that in an ecological perspective, education must be able to awaken students to the reality of natural damage and move them to action. In the ecopedagogic model, students are also invited to understand the relationship between humans and the environment critically and have sensitivity to sustainability issues. According to Fatahidin (2020), the design of the ecopedagogic model in the context of basic education needs to be built on three main pillars, namely 1) Awareness Transformation, that education must change students' perspectives from anthropocentric to ecocentric, 2) Contextual Engagement, that learning is linked to the surrounding environment and students' daily lives, and 3) Active Participation, that students are involved in real activities such as waste selection, water conservation and waste utilization. This model emphasizes that environmental education should not only be informative, but should lead to transformative and participatory actions (Wattimena, 2018). This concept is very suitable to be integrated in learning in elementary schools because early childhood has high potential in forming character and value awareness in depth. Moreover, the Deep Learning method is currently being promoted as a method of meaningful learning and deep learning in schools. It is not only the cognitive aspects of the environment that must be developed and facilitated by teachers, but also in shaping critical character and caring for the environment. At least in the school environment and students' homes, the more sustainable the character becomes a *nikai* that will be maintained and attached to each Educator and Learner in order to produce environmental care values in the future. The Role of Teachers in Implementing the Ecopedagogic Model in Developing Critical Awareness of the Environment. Teachers have a role as facilitators, activators and guides in the ecopedagogic-based learning process. Of course as a teacher must be able to have the following skills: 1) Designing learning that links materials and local environmental problems, 2) encouraging students to dialogue and reflect on environmental conditions, and 3) directing students to take concrete actions such as campaigns, tree planting, or waste

management. According to Sterling (2001), the role of teachers in sustainable education is not simply as teachers, but as agents of change in the education system itself.

2. Ecopedagogic Learning Model in Elementary School

The ecopedagogic model contains four learning systems including learning about the natural and social environment, learning that encourages students to have awareness of their relationship with nature and society, learning that adapts school assignments to be realized in life, and learning that encourages the formation of sustainable interdependent behavior (Fatahidin: 2021). Based on this, the ecopedagogic learning model is very appropriate to be implemented across subjects, especially in science and social studies subjects. Teachers can be ecopedagogic activators who are able to move students to be moved through teacher initiatives as learning leaders who can create learning that can create reflective space for students. The implementation of the ecopedagogic model can be done through environmental project-based learning, direct observation of the surrounding environment, nature-themed folklore and reflective assignments. The Ecopedagogic Learning Model can also be developed through the following strategies: 1) Project Based Learning (PJBL) for example the "Waste Free School" project, 2) Experiential Learning, exploring the surrounding nature such as rivers, school gardens and school gardens, 3) Storytelling, using local folklore that contains ecological messages, and 4) Reflective Dialogue, students are invited to analyze environmental events and find solutions, 5) Collaboration with the Community, inviting traditional leaders or environmental activists to school, and 6) Value Reinforcement, through folklore, traditional music and sustainable living practices. This kind of learning can be integrated into the Merdeka Curriculum and various subjects such as science, social studies, Indonesian language, and even cultural arts.

3. Relevance to Local Environmental Policy

Dedi Mulyadi as the Governor of West Java Province and an environmental figure popularized various policies based on Sundanese local wisdom, such as spring preservation, tree planting movements, banning single-use plastics (Mulyadi, 2017). Teachers can take inspiration from these policies and package them in school learning, for example by involving students in tree planting activities around the school, holding an environmentally friendly product bazaar, which is a real example of the integration of local values and sustainability. All of these policies can be integrated into learning models that shape the character of environmental care based on local culture. Contextualizing Dedi Mulyadi's policy as a source of Ecopedagogic values not only enriches the material, but also strengthens the roots of local culture and the environment as part of students' identity in forming critical character towards the environment.

4. Approach and Syntax of Ecopedagogic Model in Primary School Learning

There are various learning approaches that are based on environment-based education (Ecopedagogics). As an illustration of the Project Based Learning Model, Problem Based Learning and also the Deep Learning Approach which is trending and current to encourage increased student learning outcomes, it also presents contextual environmental problems through a project-based, problem-based approach, and meaningful and deep learning in measuring the cognitive aspects and skills of students at school. This is emphasized by Anggraini & Wulandari, (2020), training students in expanding their thinking about problems in life that must be accepted, providing direct training to students by honing and familiarizing them with critical thinking and expertise in everyday life, and adjusting to modern principles whose implementation must be carried out by honing student skills, both through practice, theory and application. In the past research, the author compiled an ecopedagogic model design that could be implemented in schools through the steps contained in the following chart:

- a. Formulate learning objectives (Use of operational terms in the form of learning outcomes, behaviors and abilities)
- b. Development of evaluation tools (determining the type of test to be used and compiling question items for each objective)
- c. Teaching and learning activities (formulating all possible learning activities to achieve goals, determining the learning activities to be pursued).

Based on the above, educators should be able to transform students' critical awareness in accordance with the principles of environmental care.

IV. CONCLUSION

Based on the discussion and results of the study, the researcher draws the conclusion that the ecopedagogic model is an educational model that is able to foster students' critical awareness of the environment, through a contextual, dialogical, reflective and sustainable approach. The role of teachers is very strategic in implementing this model in elementary schools, because teachers become agents of change and value facilitators. Subang Regency as a potential area in the context of the environment. So learning should be based on an environment-based learning model, namely Ecopedagogics. As a model that can be applied from an early age as an effort to foster the character of environmental care and produce a superior generation in the future. An educator must be able to design and process learning in the classroom contextually. In addition to the ecopedagogic model making learning critical, this model is also able to bring a safer and more enjoyable learning atmosphere. Some steps that teachers can apply in the classroom through modules or lesson plans in developing students' critical awareness of the environment include:

- a. Educators observe the needs of learners' social and natural environments.
- b. Educators organize teaching materials and

develop themes by preparing texts related to the environment for learners.

- c. Early learning activities, learners are asked to describe and construct knowledge about environmental problems around them.
- d. Educators develop learning fundamentally by using media and learning resources that are in the context of learners' lives.
- e. Learners solve problems collaboratively to analyze various environmental problems critically and are able to find solutions to these problems.
- f. Educators reveal the latest environmental issues and solution strategies to respond to these issues, both partially and universally.
- g. Educators and learners together critically reflect on teaching about the interdependence of sustainable creatures.
- h. Learners carry out class assignments, group work, writing exercises, experiences into daily and future social action.
- i. End of learning activities, students and educators evaluate the learning activities that have been carried out (Fatahidin: 2021).

Policy Recommendations:

1. Ecopedagogic integration in the basic education curriculum

The central government through the Ministry of Education can consider integrating ecopedagogic values in the national curriculum explicitly, not only in science subjects but across subjects and continuous teacher training.

2. Replication of culture-based policies.

Environmental policies initiated by Governor Dedi Mulyadi such as tree preservation, plastic bans and the Sundanese cultural approach can be replicated by local governments, especially Subang Regency as a form of synergy between character education, environmental preservation and strengthening social identity.

3. Strengthening school collaboration with communities of practice and parents.

The government needs to encourage more intensive and inclusive collaboration with communities of practice and environmental communities, traditional leaders, and parents to strengthen holistic and sustainable environmental character education, especially at the elementary school level.

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