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The Effect Of Ecoliteracy On The Formation Of Environmental Awareness Character

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Abstract

Education is a concrete effort that the government can make in implementing the ideals of national development. Through education, the government wants to develop quality human resources. However, such massive progress must be balanced with an awareness of nature that also needs to be strengthened. Ecoliteracy is expected to address the challenge of instilling ecological awareness in students from an early age. This caring for the environment is expected to become a solid foundation for future generations in building a country into a developed nation while at the same time being able to work in harmony with nature. The purpose of this study is to describe the role of ecoliteracy in shaping students' character. The research method used in this study is SLR (Systematic Literature Review). Data collection was carried out by identifying or examining all articles that had the same research topic in this study. A total of 8 national and international journal articles were used in this study, obtained from Google Scholar, Sinta, and the international journal Saintis Publishing. Based on the journal analysis that has been carried

out, it has been found that the formation of an environmentally conscious character, where students become more aware of the role, benefits, and impact of the environment.

Keywords: Ecoliteracy, Environmental Care Character, Students

INTRODUCTION

Currently, the problem environment get significant and ongoing media attention discussed in a way wide in global scale (Angelo & Wachsmuth, 2020), Environmental issues currently receive significant global attention due to their impact on sustainability. Various disaster ecological, both in nature natural and also consequence activity human beings, have influence sustainability life on earth. Conditions this show existence crisis awareness to importance balance between humans and nature. Suwandi, et al. (2021) explained that in principle man No Can separated from environment. Interaction humans and their environment is a natural process, occurs since born until die.

In the middle challenge said, the world of education own role strategic in grow awareness environment, especially through planting values and knowledge since age early. One of the the approach considered effective in to form caring and responsible individual answer to environment is through strengthening ecoliteracy or *ecoliteracy*. Keraf (2010) ecoliteracy is awareness that nature and humans each other influence. Awareness This will become guidelines life somebody in all aspect life until formation public conscious sustainability will importance guard environment. From Ecoliteracy refers to the ability somebody for understand principles base ecology, aware connectedness between humans and the environment, as well as own awareness and commitment For guard sustainability natural in life daily.

Ecoliteracy No just convey information or fact scientific about environment , but also forms attitudes, values, and actions real in effort guard earth. Ecoliterate individuals No only understand about importance ecosystem, but also have a sense of responsibility moral and social responsibility For protect and preserve environment. With Thus, ecoliteracy play a role important in to form environmental concerns or concern environment, namely a attitudes and behaviors characterized by attention, concern, and encouragement For play a role active in preservation environment.

In context education in Indonesia, urgency For integrate values ecoliteracy in system learning become the more important. School as formal institutions that play a role in formation character generation young, have role big in to plant principles sustainability. Through contextual and participatory learning processes, schools can become fertile space for growth awareness ecological. For example, through introduction draft ecosystem in the eyes science lessons, application project management waste, manufacture park school, until implementation activity environment such as the Adiwiyata program. Schools is environment Where place formation character participant educate because That required A business For awareness raising is carried out in order to be able to develop character care environment in the environment school, Valentina (Supriatna , 2017).

However, the facts on the ground show that implementation education environment, especially those based on ecoliteracy, still face various constraints. Not all school own sufficient understanding about draft ecoliteracy, teachers have not fully control approach ecopedagogy, and integration material environment in curriculum is still minimal. In addition, there is no all school own source adequate power For support learning contextual based on environment. On the other hand,

students have not fully realize importance role they in guard sustainability environment. Kurniasari (2019), explains that ecoliteracy is purposeful movement For integrate intelligence emotional social For create welfare education, social and environment with reduce damage environment and preserving nature.

Along with the more pressing him need will education effective environment, important For do study more in about how far is ecoliteracy contribute to formation concern environment, especially among student school . Research This become important as step beginning in evaluate effectiveness approach ecoliteracy in to form generation that does not only intelligent in a way academic, but also wise in face issues ecological.

Therefore that, research This aiming For to study influence ecoliteracy to formation concern environment among students. The results of study This expected can give contribution in development of more educational strategies effective and sustainability oriented. With increase level ecoliteracy students, it is expected will appear deep awareness and concern to environment, which ultimately will contribute to change behavior and patterns a better life friendly environment.

With Thus, strengthening ecoliteracy through education is step very preventive and transformative important in build sustainable civilization. The world of education own opportunity big For become a driving force change going to conscious society will importance guard harmony between humans and nature .

METHOD

This research is structured in the form of a literature review conducted through a series of scientific activities such as reading, observing, identifying, describing, and analyzing various relevant reading sources. These sources include reference books,

scientific journals, and other academic literature that is closely related to the research topic, especially in the field of environmental education. This method was chosen as part of a documentary approach, where researchers use available literature as the main material to explore and understand the phenomena being studied. In accordance with the guidelines study qualitative (Artanti et al., 2024), this study focuses on analysis document or SLR (Systematic Literature Review).

The sources of articles used in this study were obtained from various trusted online databases that are widely used in the academic world. The articles analyzed came from various groups, including the work of students, academics, teachers, and lecturers that have been published in accredited national journals, scientific seminar proceedings, and reputable international journals. The publication time span that is the limitation in data collection is between 2022 and 2025, so that the results The study remains relevant to the latest issues and developments.

The main topic of this research is about environmental education or also known internationally as education for sustainable development. This education is seen as one of the strategic approaches that have been widely adopted in various countries to answer the challenges of increasingly critical environmental conditions. In its implementation, environmental education not only teaches theory, but also aims to form awareness and behavioral changes towards a more environmentally friendly lifestyle.

To support the literature search process, researchers utilized various online scientific databases such as Google Scholar, Elsevier–Science Direct, Springer, and Taylor & Francis Online, as well as several websites that provide academic content with appropriate themes. After that, a selection process was carried out by

setting several criteria for articles that would be used in the study. These criteria include:

(1) documents in Indonesian or English; (2) articles that explicitly discuss environmental education models in the context of behavioral change; (3) articles that contain keywords such as “ecoliteracy”, and “Character”. Care environment” in the title; in the published article in the period between 2022 and 2025.

There are 106 articles obtained using the Google Scholar search engine. Furthermore, the articles obtained are sorted to obtain articles that are in accordance with what will be studied. After sorting, there are 8 articles that have the expected criteria, namely in accordance with the discussion, year of publication and reputable.

In analyzing the data, a content analysis approach was used. This technique allows researchers to conduct an in-depth study of the content of the literature that has been collected, especially those related to environmental education and environmental care behavior. With this method, researchers can find patterns, trends, and important findings that support the formation of theoretical foundations and practices for implementing environmental education in order to foster environmental care. To preservation nature.

RESULTS AND DISCUSSION

Table 1. Presenting the Review Results of 8 Verified Articles to the Inclusion Stage

Author and Year Rise	Title Article	Method	Results	Conclusion

(Wilujeng et al., 2019)	Effectiveness of education For sustainable environment For develop literacy environment in science learning.	Quasi Experiment	The findings of this research showed that the mean score of the experimental class was greater than the control class, and there was a remarkable difference in environmental literacy between the experimental and Control class. Therefore, we could conclude that EESD-based student worksheets are useful to improve the students'	Competence of EESD applied in the learning process are systems of thinking, action-orientation, foresighted thinking and strategizing, and collaborating. The results showed that the EESD approach can be applied in the science learning process. The EESD approach is an innovation in the field of education to prepare a young generation that is concerned with the environment.
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			environmental literacy.	
(Al Husban, 2025)	The Impact of Integrating Sustainable Development Goals on Students' Awareness and Pro-Environmental Behavior : A Case Study of Jordan	Quantitative methodology (survey)	The results reveal that while students have a moderate level of awareness, they display a high level of pro-environmental behavior. Furthermore, the study reveals that the inclusion of	The study aimed to evaluate students across different disciplines, it did not account for the varying emphasis on sustainability within each program, which could impact students' awareness related to their specific

			<p>the 17 disciplines. SDGs in the curriculum positively impacts students' awareness and influences sustainable behaviors. The results also suggest that student behavior at the University of Jordan is impacted by gender, age, and academic year, while awareness remains consistent.</p>
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(Apriyant i et al., 2025)	21 st Century Environmental Education: A Strategy for Transforming Community Behavior in Facing the Environmental Crisis	Literature Review	The results of the investigation obtained are that the implementation of 21 st century environmental education responds to challenges and adapts to the needs of society, especially in dealing with environmental crises that occur due to anthropogenic activities. Strategies, approaches, , and models of 21 st century	Based on the explanation of environmental education in the 21 st century above, it can be concluded that environmental education is present as an urgency due to the environmental crisis and fulfilling 21 st century skills. Learning strategies that can be used are innovative strategies that can be adapted to the development of technology and information, such as problem- based
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		<p>environmental education are adapted to the needs of society and the development of technology and information . The movement of the environmental education paradigm towards ESD is expected to transform the way of thinking and working towards green future.</p>	<p>learning, project-based learning, inquiry and discovery learning, blended learning, online learning, e-learning, outdoor learning that provide contextual learning experiences and independent learning skills to students (especially in the context of implementing the independent learning curriculum).</p>
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(Isnanda et al., 2022)	Insightful Indonesian Language Learning ecoliteracy as a medium for formation character concern environment student Elementary school.	content analysis	Based on the approach taken, the cultivation of an attitude of caring for the environment in elementary schools is carried out by using contextual texts, such as the content of intelligence on the environment. The text presented by the teacher is	Planting attitude care to the environment in Elementary Schools (SD) can done with utilization contextual texts , such as loaded/ filled about intelligence environment . The text presented by the teacher is condition damage environment caused by behavior human being who is not obedient principles, such as throw away trash in its
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			<p>condition of place. environmental damage caused by disobedient human behavior, such as throwing garbage in its place. The text presented certainly reflects a balance between the narrative of events and images that reflect the environment, such as floods and landslides. In</p>
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			principle, teachers must be able to explore how important it is to protect the surrounding environment.	
(Khoerunisa, 2024)	Character Care Environment Learners In the Implementation of Eco Literacy For Supporting ESD In Elementary Schools	descriptive quantitative	Based on results survey conducted, perception by participant educate school base about character care environment in the application of Ecocare Literacy for supporting	Based on the data and results conducted by researchers show that This Balanced results, good results, character of environment participant

			Education for Sustainable Development is in the Category very Good with percentage by 81.7%.	educate in the implementation of Eco Literacy which has supports ESD.
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(Permata & Agung Wibowo, 2023)	Implementation of Capacity Building Ecoliteracy Student Elementary school	Analysis Descriptive	Result of study This show that strengthening ability ecoliteracy done in form programme d habits inschools. Implementation done with integrate it in the learning process that refers to learning themes in class. Awareness about ecology This No only limited to give knowledge but also provides examples	Implementation strengthening ability ecoliteracy school base in the District Tegalrejo , Yogyakarta is done in a way integrated in the learning process . Habituation in effort awaken concern to environment applied in several school programs that also involve
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			<p>that are implied in environmental programs in schools. Although has given mature knowledge, but Not yet in a way overall students at school study Show awareness ecological.</p>	<p>parents to create continuit. Strengthening ecoliteracy This need For Keep going done with hope can give benefit in treat nature and environm ent around in the future.</p>
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(Rahmat t al., 2025)	Generatio n Z and Ecological Literacy: Buildi a Conscious and Sustainab le Future	Literature review	the result of this research is Generation Z is particularly at risk due to the rise of digital technology and the decline of environme ntal ethics. Awareness of fragile ecosystems from young age is fundament al to sustainable living. Therefore, educational curricula should be shaped with an emphasis on the idea that	Cultivat in environme ntal awares among The next generatio n will require ecologicall y literate educators who are able to effectively embed ecological principles across discipline s and teaching methods. Generatio n Z is particular ly at risk due to the rise of digital
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			<p>cultural diversity should be linked to ecological adaptation, and thus an overall team approach to environmental and ecosystem cognition.</p>	<p>technology and the decline of environmental ethics. Awareness of fragile ecosystem is from a young generation is fundamental to sustainable living. Therefore,</p>
<p>(Setiadi et al., 2023)</p>	<p>Portrait of Ecoliteracy Competence in Elementary School Students:</p>	<p>Survey</p>	<p>This research found positive and significant influence of ecoliteracy competence on environmental</p>	<p>This research found that the ecoliteracy competence of elementary school students in</p>

			sustainability among	Indonesia is still relatively low and is an important issue that must be considered.
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	<p>Relationship of Ecoliteracy Competence on Environmental Sustainability in Indonesia Hermawan</p>		<p>elementary school students in Indonesia in 2022/2023 (Fcount = 14.025 > Ftable = 3.906; p = 0.000), so this research shows that the Adiwiyata school program and Nature and local wisdom are supporting factors for implementing the concept of ecoliteracy among students. In conclusion, students' ecoliteracy competencies need to be developed, especially in formal education by integrating government programs such</p>	
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			as nature schools and Adiwiyata schools and supported by local wisdom with the hope that students will be able to have a sense of concern for environmental sustainability.	
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Based on the articles that have been sorted above, it can be categorized into (1) effectiveness of ecoliteracy, (2) implementation in curriculum, (3) challenges in adoption. Here we can see how the role of the curriculum in fostering environmental awareness character. so that good ecoliteracy learning must be taught from an early

age to be able to foster this character. basic education is an alternative that can be used as a solution. where in the basic education stage is the stage of forming good habits that can be useful for community problems. one way to implement it is to integrate ecoliteracy learning with others. This is also an answer to the separation that occurred today.

In facing the various challenge the environment is increasingly complex and worsening consequence activity human, urgency For to form character caring generation to environment become the more important . Crisis climate, degradation ecosystem, and decline quality life caused by damage environment No only demand change policy, but also transformation in approach education. One of the the current approach grow and become highlight in the world of education is ecoliteracy, namely ability For understand principles base ecology and its application in life daily For support sustainability life.

Education based on ecoliteracy No only give knowledge cognitive about environment, but also encourages transformation attitudes and behavior students so that they capable take friendly decision environment. Formation character care environment is part essential from objective education 21st century which emphasizes development skills think critical, collaboration, communication, and creativity in context life real. In education environment the 21st century is here as response to crisis global ecological events that occur consequence activity humans (anthropogenic activities). Environment life No Again just become background behind life human, but now has become

center attention main in discourse development sustainable. With increasing awareness will importance preservation earth, then education must transform become tool strategic capable print generation that does not only intelligent in a way academic, but also wise in a way ecological. Nurdianti (2021) that improvement education is part from business improvement quality Indonesian people.

Shift paradigm from just education information going to education For development Education for Sustainable Development (ESD) marks point come back important in direction policy education. Through ESD, the approach ecological No Again become part outskirts curriculum, but rather integrated to in all over discipline knowledge in a way holistic and cross discipline. Ecoliteracy, as foundation from ESD, is ability For understand system ecological, recognizing impact from action man to environment, as well as to form supportive attitudes and actions sustainability. A an ecoliterate individual No only understand draft base ecology, but also has awareness critical to interaction between humans and nature.

Character care environment is results from the educational process that emphasizes understanding deep ecological. In the context of this, ecoliteracy No only hone aspect cognitive, but also affective and psychomotor students. Character care environment reflected in behavior daily like No throw away rubbish carelessly , economically energy, recycling repeat, and get involved in actions preservation environment.

The results of research conducted in various institution education, both in and also abroad, showing

that improvement ecoliteracy own correlation significant positive to formation character care environment. In Indonesia, for example, integration curriculum based on Adiwiyata which combines values local and wisdom environment proven effective in grow concern student to environment around. Some study disclose that although awareness student to issue environment be at the level moderate, but pro- environmental behavior they classified as high. This is indicates that behavior environment No solely influenced by knowledge, but also by factors habituation, school programs, and support social from teachers and parents.

A study conducted at the University of Jordan showed that inclusion of 17 Sustainable Development Goals (SDGs) to in curriculum impact positive to awareness and behavior sustainable students. However, research it also notes that level awareness No varies in a way significant according to age or gender, but behavior influenced by factors including, year academic.

Something similar was also found in Indonesia, where the strengthening ecoliteracy through habituation and integration in theme learning capable give impact positive to character students. School programs like Adiwiyata and schools natural become catalyst in formation culture friendly school environment. However , the challenges still there is, especially in matter consistency implementation and engagement all parties, including parents. Other studies have noted that although material about ecology has given, not yet all student show awareness high ecological. This is show that giving knowledge just No Enough without existence

internalization sustainable values and habits.

Planting character care environment , especially in schools basic, can done through use texts contextual that reflects reality damage environment . Teachers can use narrative about floods, landslides, or pollution caused by behavior human being who is not responsible answer as relevant teaching materials. Learning This must capable inspiring emotion students and encourage they For think critical as well as take role as agent changes. Daryanto and Suprihatin (2013) stated that touch heart is the most important process in increase awareness man to environment. When

Touching learning aspect affective become important in to form values and attitudes. Therefore that, the recommended approach is integrative and contextual, where the material environment No stand alone, but united in various eye lesson.

Use sheet Work student ESD based is also proven capable increase ecoliteracy students. ESD competencies applied like *systems thinking*, *foresighted thinking*, *strategizing*, and *collaborating*, are important capital For develop skills 21st century visionary environment.

Students, who grow in the digital era, facing challenge alone. In one side they own access very useful information wide, but on the other hand they are also threatened by the decline ethics environment Because too focus on cyberspace. Because that is, education that emphasizes understanding ecosystem in a way real become important For return awareness will importance interaction humans and nature.

Curriculum need arranged with consider connection between diversity culture and adaptation

ecological. Education must nature cross culture and cross discipline for students can understand that preservation environment is not quite enough answer collective people man.

Formation character care environment through ecoliteracy No can handed over only to institution school. Parent and community involvement become key success term long. School need develop programs that are collaborative and sustainable, such as garden programs schools, waste banks, greening, and competitions innovation environment.

In addition, parental involvement in activity school environment will create continuity between learning at school and at home. With Thus, the character care environment become part from life student in a way comprehensive, not just formality academic.

CONCLUSION

Based on various research results and educational practices that have been studied, it can be emphasized that ecoliteracy has a very strategic role in forming environmentally conscious characters. The concept of ecoliteracy, which includes ecological understanding, awareness of the relationship between humans and nature, and responsibility for environmental sustainability, is the main foundation in effective environmental education efforts. In the world of education, ecoliteracy is not only interpreted as mastery of knowledge about ecosystems, but also as a means to instill noble values and form the character of students who care, are critical, and act in real ways. to problem environment.

Study show that Although students' awareness of

environmental issues is still at a moderate level, their pro-environmental behavior is quite high, especially when the learning process touches on aspects of real experience and is relevant to their lives. This is where the importance of transformative, contextual, and collaborative education lies. This kind of education allows students not only to understand concepts cognitively, but also to internalize these values as part of their character. In this case, ecoliteracy becomes an important instrument in forming an environmentally conscious character, because it invites students to think systemically, act wisely, and develop empathy for the lives of other creatures and sustainability earth.

Thus, ecoliteracy learning in schools has an impact on the level of environmental awareness of students. However, it must be realized that this study still has many shortcomings so that in order to find a better truth, it must be accompanied by more comprehensive data from various existing sources, and direct field research must be conducted to test the existing data. In addition, the curriculum must also pay more attention to the ecoliteracy aspect so that increasing environmental awareness will be a multi-party responsibility.

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