

Portrait of Ecoliteracy Competence in Elementary School Students: Relationship of Ecoliteracy Competence on Environmental Sustainability in Indonesia

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Received July 4, 2023; Revised November 2, 2023; Accepted December 21, 2023

Cite This Paper in the Following Citation Styles

(a): [1] Hermawan Wahyu Setiadi, Siti Irene Astuti Dwiningrum, Ali Mustadi, "Portrait of Ecoliteracy Competence in Elementary School Students: Relationship of Ecoliteracy Competence on Environmental Sustainability in Indonesia," *Environment and Ecology Research*, Vol. 11, No. 6, pp. 993 - 1001, 2023. DOI: 10.13189/eer.2023.110610.

(b): Hermawan Wahyu Setiadi, Siti Irene Astuti Dwiningrum, Ali Mustadi (2023). *Portrait of Ecoliteracy Competence in Elementary School Students: Relationship of Ecoliteracy Competence on Environmental Sustainability in Indonesia*. *Environment and Ecology Research*, 11(6), 993 - 1001. DOI: 10.13189/eer.2023.110610.

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Abstract Several studies in the ecosystem field have found that ecoliteracy competence plays an important determining role towards preserving the natural environment. Although there is a lot of research on environmental issues in various countries especially in Indonesia, only a few studies have been conducted on ecoliteracy competencies, let alone on elementary school students. The implication is on the quality of human resources who have low environmental awareness can cause many problems related to environmental damage and natural disasters. This research aims to explore the portrait and influence of elementary school students' ecoliteracy competencies on nature conservation and investigate supporting and inhibiting factors for implementing the concept of ecoliteracy in Indonesia. Based on the results of a questionnaire with 170 respondents in five districts/cities that are Purbalingga, Pekalongan, Jambi, Sleman and Surabaya, this research found a positive and significant influence of ecoliteracy competence on environmental sustainability among elementary school students in Indonesia in 2022/2023 ($F_{\text{count}} = 14.025 > F_{\text{table}} = 3.906$; $p = 0.000$), 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 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.

Keywords Ecoliteracy Competence, Natural, Conservation, Supporting Factors

1. Introduction

Environmental problems in Indonesia have now become complex problems and require serious handling. There are two main factors related to environmental problems, namely factors originating from humans and factors originating from nature itself. Humans are the main actors responsible for the destruction of the universe. One example of natural destruction caused by human activities is forest fires, which almost entirely originate from human activities (99%), whether they are done properly with on purpose or element negligence [1]. Indonesia is a country with a high level of disaster risk. This is due to the high level of exposure and vulnerability to disasters, in fact

almost 75% of industrial infrastructure and basic connectivity in Indonesia, including supporting facilities, were built in disaster-prone zones. This causes a high probability of damaging infrastructure assets, which can increase operational costs due to the provision of alternative services in an effort to minimize the risk of occurrence disaster [2].

Losses resulting from human behavior on nature conservation can be minimized by understanding ecoliteracy competencies. Ecoliteracy competence is needed in preventive efforts to overcome imbalances in environmental problems so that the balance of nature and the ecosystem as a place to live and develop life is maintained [3]. Movement efforts related to environmental preservation are often referred to as ecoliteracy. Another definition of ecoliteracy refers to a concept or human movement in an effort to raise awareness and re-understand the importance of preserving the environment so that it remains maintained and sustainable [4]. Environmental conservation competencies need to be instilled in children or students as early as possible, both in the family and at school.

Students who have good ecoliteracy competencies are able to have a comprehensive conceptual picture related to ecological aspects and environmental sustainability aspects which can be used as a basis for initial understanding for solving problems, especially problems related to the environment in everyday life [5]. The application of ecoliteracy skills to solve problems can be pursued by students, one of which is in formal schools, which is a means of changing character and being an agent of change. [6].

Environmental problems are now a special concern in various countries. As a result, the aspect of ecoliteracy competence in society and especially for elementary school students reinforces the fact that this effort is important to study for the sake of preserving nature. Two critical questions are the focus of this research. First, how is the relationship between students' ecoliteracy competencies and environmental sustainability? Second, what are the supporting and inhibiting factors for the ecoliteracy competence of elementary school students in Indonesia? In the second part, the ideas put forward are discussed in the form of building stakeholder commitment and efforts for environmentally friendly schools in Indonesia.

1.1. Ecoliteracy Perspective

In the early 1990s, the term ecoliteracy was introduced by David Orr who called it "ecological literacy" to describe the human ability to understand complex natural systems and human behavior that enable and support life on Earth [7]. Etymologically, ecoliteracy comes from two words, namely eco and literacy. Eco is an abbreviation or acronym for ecology, which means the branch of natural science that studies habitat and interactions between living things and the natural surroundings. Ecology also not only studies the structure and function of nature but also studies the

analysis and solutions of various natural phenomena [8]. Meanwhile, literacy means literacy so ecoliteracy can be interpreted generally as awareness, understanding and literacy about environmental science.

Many experts have explained what is ecoliteracy [9] which says that ecoliteracy is a human ability or skill where they have at least understood the basic concepts of human and environmental ecology, the concept of natural sustainability, and they have a rationale for determining it and steps in solving the problems they face. Ecoliteracy means a condition where a person has been enlightened about the importance of the environment, thereby illustrating awareness of the importance of the environment. Thus, people who have reached the level of ecoliteracy are people who are very aware of the importance of the environment protecting and caring for the earth, ecosystem, and nature as a place to live and develop life. Therefore, on the basis of and driven by this awareness, humans arrange their patterns and lifestyles to become patterns and lifestyles that are in harmony with the environment [10].

The environment is considered as human access to prosperity so that it is not only considered as a place for living creatures to live but also the productivity of a living universe between nature and the behavior of living creatures which are interrelated and sometimes cause problems of environmental damage. The future is caused by a lack of knowledge in understanding the importance of protecting the environment which is supported by environmental awareness [11]. It must also be acknowledged that there are other facts that require serious attention related to the lack of environmental awareness, namely the increasing volume of food packaging waste, especially food packaging waste in the form of plastic, paper, cans and laminate. This waste includes bags, pouches, packages, sachets, pouches and bottles. An interesting note was released by the World Bank in June 2013, the World Bank published a report entitled *What a Waste; Global Overview of Solid Waste Management*. This report is the first to discuss waste problems in an integrated manner, starting from the origin of waste, collection, processing to disposal, as well as waste grouping by region and country. In its report, the World Bank reminded that the total solid waste produced worldwide reaches around 1.3 billion tons per year. In 2025, the world's waste volume is projected to almost double, namely approaching 2.2 billion tonnes per year. The latest data was presented by Achim Steiner, executive director of the United Nations Environment Program (UNEP), in his report entitled "Valuing Plastic: the Business Case for Measuring, Managing and Disclosing Plastic Use in the Consumer Goods Industry" in 2014, revealed that total loss of natural resources, due to plastic production for the retail (consumer goods) industry is estimated at \$75 billion per year. These losses come from the impact of plastic waste on the environment, including the impact of plastic pollution in the ocean and plastic that is not recycled and

thrown directly into landfills. Ecological intelligence is our ability to adapt to the ecological landscape in which we live [4]. A person's ecological intelligence is based on knowledge, attitudes/awareness, and life actions/behaviors that are in harmony with the natural environment. As explained by Supriatna, ecological intelligence is a nature complex [12].

Ecoliteracy competence is needed in preventive efforts to overcome inequality in environmental problems so that the balance of nature and the ecosystem as a place to live and develop life is maintained [3]. Movement efforts related to environmental preservation are often referred to as ecoliteracy. Environmental conservation competencies need to be instilled to children or students as early as possible so that they can have a sense of responsibility, love the environment, care about environmental problems, and be able to act wisely in dealing with existing problems so that it becomes a culture and understanding emerges that the environment is not only used for now but for generations which will come. Meanwhile, self-awareness is how a person can have awareness for himself in motivating, regulating emotions, self-confidence, and bringing confidence about himself to be responsive to the surrounding environment [13]. Developing ecoliteracy competencies in education can create a sustainable society. Ecoliteracy needs to be implemented in various programs that can be practical solutions in overcoming current global environmental problems. Based on a systemic perspective, the only solutions that must be implemented are sustainable solutions [12]. Management of environmental balance and preservation must be carried out by all parties, from individuals, communities, and countries to the international community.

The most extensive international program related to ecoliteracy in schools has been implemented under the term Eco-Schools, which was launched by four European countries in 1994, in response to the 1992 "Earth Summit" in Rio de Janeiro, which called education "Essential for achieving awareness, environmental and ethical values and attitudes, skills and behavior consistent with sustainable development". Participation in Eco-Schools has increased from one hundred and thirty-nine schools in 1995 to more than forty-nine thousand schools in sixty-two countries, enrolling more than 16.5 million students. Eco-Schools spread to the United States (US) in 2009 under the auspices of the National Wildlife Federation, and US membership has grown from 103 to 4,375 schools [14].

1.2. Relationship of Ecoliteracy Competence and Nature Conservation

The study of students' ecoliteracy profiles attracted the attention of researchers to see the extent of the relationship between students' ecoliteracy competencies and environmental sustainability [15]. Furthermore, operationalizing ecological literacy individually means it must have an ecoliteracy component. Ecological literacy has four components, namely knowledge, skills, affective

and behavioral [16]. Other components of ecoliteracy as expressed by [17] include: 1) ecological knowledge; 2) ecological attitude (environmental impact) including verbal commitment, sensitivity to the environment, and general attitude towards the environment; 3) cognitive skills including problem identification, problem analysis, action plans; and 4) environmental behavior (behavior) including real commitment. Operationally, the ecoliteracy component was formulated by The Center for Ecoliteracy (2014) as a set of core competencies to help the younger generation live in a sustainable society. These competencies relate to the head (learning to know), heart (learning to be), hands (learning to do), and spirit (learning to live together).

Environmentally caring character has an impact on environmental sustainability [18]. Other studies also support these findings where understanding about environmental awareness is largely determined by a person's ecoliteracy competence [19]. Based on this conception, a theoretical framework can be created that is interconnected between ecoliteracy competencies and supporting factors for environmental sustainability which can be shown in Figure 1.

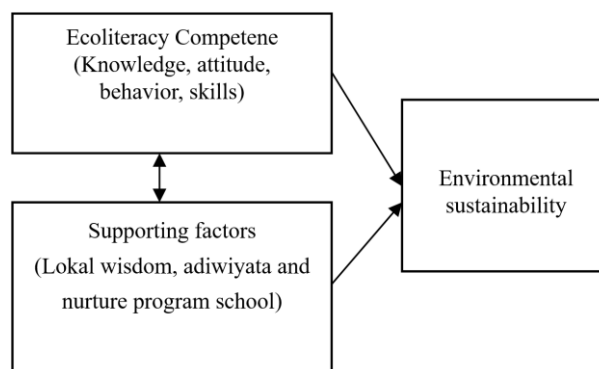


Figure 1. Theoretical framework for sustainability environment

2. Materials and Methods

This research was conducted from April to June 2022, taking place in five districts/cities that is Purbalingga, Pekalongan, Jambi, Sleman and Surabaya. Purbalingga, Pekalongan, Jambi, Sleman Regencies and Surabaya were chosen because they are some of the barometers of education in Indonesia. Data collection used a questionnaire with 170 respondents. A purposive sampling technique was used to select respondents. There are two strategies for obtaining data. First, the questionnaire was given directly to the target respondents using a cover letter. Second, researchers used Google Form to distribute questionnaires due to the Covid-19 Pandemic. The questionnaire is divided into two parts the first respondent is asked to fill in identity information such as gender, age and address. In the second part, respondents were asked to fill in a statement regarding the level of agreement regarding ecoliteracy competencies, factors supporting

ecoliteracy and their relationship with environmental conditions in the area where they live. One example of a statement related to ecoliteracy competencies explored in this research was answered by respondents that "Understanding ecoliteracy competencies is important so that humans are able to respect the environment". Furthermore, for the statement regarding the relationship between ecoliteracy competence and environmental sustainability, it was found that "Ecoliteracy competence needs to be possessed by someone so that the natural environment is well maintained." Another thing, related to the statement of supporting factors, was answered by respondents that "Government programs such as Adiwiyata schools and nature schools have an important role in increasing ecoliteracy competence and local wisdom is the initial capital of the community in preserving the natural environment".

3. Results and Discussion

3.1. Demographic Profile

This research involved 170 respondents, 105 (62%) were women and 65 (38%) were men. Respondents' ages ranged from 8 to 12 years.

Elementary School Students' Ecoliteracy Competencies Questionnaire results from 170 respondents distributed in five districts/cities show that the ecoliteracy competencies of elementary school students in Indonesia are different in each district. Competence ecoliteracy students in the District Purbalingga Province Central Java with 32 respondents show category low, in the Regency Pekalongan 35 respondents show category low, in Jambi Regency, Sumatra Province with 31 respondents show category medium, in the Regency Bantul, Yogyakarta Special Region Province with 42 respondents were located in category low, 30 and in Surabaya City, Province Java East show category low. Meanwhile in a way whole competence student school the basis in Indonesia is located in category low. This is in accordance with Dewi's findings that students do not yet have ecological intelligence because schools are not yet able to transmit environmentally charged knowledge and tend to focus too much on achieving the ultimate goal of completing curriculum delivery [20]. The reality on the ground is that in Indonesia it turns out that ecoliteracy competencies have not been well developed in elementary schools. This is in line with the results of research from Karlina where the results of observations on class IV students at SDN Licin Sumedang Regency show that students' ecoliteracy competence is still low [21]. This can be seen from the attitude of students' indifference towards the school environment which is shown by the behavior of many students who throw rubbish carelessly, and their indifference to plants so that there is a lot of rubbish in pots which results in many plants wilting and drying out.

Respondents' opinions regarding the low understanding of ecoliteracy are because the concept of ecoliteracy has not been properly introduced, either by parents, schools or the community. This is in accordance with questionnaire data which shows that 21% of people have never received information about ecoliteracy from parents, schools or the community. Apart from that, only 44% have ever received information about ecoliteracy.

3.2. Cronbach's Alpha Reliability Test

Reliability analysis is used to assess the extent to which the research instrument is free from bias and to ensure consistent measurements over time. Table 1 shows the results of the reliability analysis. Cronbach Alpha values ranged from 0.944 to 0.947 for all variables. The three research variables were subjected to reliability analysis. Ecoliteracy competency was recorded with a score of 0.944 and a supporting factor score of 0.947. The Cronbach's Alpha value for nature conservation as the dependent variable is 0.883. By looking at this score, it can be said that the instrument in the questionnaire is valid and reliable.

Table 1. Results of Cronbach's Alpha reliability test

Variable	Cronbach's Alpha	N of Items
Ecoliteracy competence	0.944	20
Supporting factors	0.947	20
Nature sustainability	0.883	20

3.3. Multiple Regression Analysis

Regression analysis is used to test the influence of Ecoliteracy Competence on Environmental Sustainability. Table 2 shows the results of the analysis. The R square research recorded a value of 0.378. The results of the correlation analysis obtained a calculated r of 0.378, with an error rate of 0.000 (5%), so that H_0 was rejected and H_a was accepted. This means that ecoliteracy competence and its supporting factors are positively and significantly related to nature sustainability. Results of simple analysis regression with the help of computer The SPSS program can summarized in the following Table 2:

Table 2. Summary of Simple Regression Analysis Results

Variable	Regression Coefficient (B)	Beta Standard	t-statistics	Sig.
Constant	67,195		21,347	0,000
Ecoliteracy competence	1,407	0.3 78	4,302	0,000

R = 0.378 F count = 19.025
R Squared = 0.143 N = 170

Based on the results analysis regression modestly above

the price obtained coefficient regression $B = 0.378$ whereas sign constant (A) as big as 67,195. This price can be written in the form of a regression equation as follows:

$$Y = a + bX$$

$$Y = 67.195 + 0.378X$$

The equality regression linear can be explained as follows:

Sign 67,195. is constant which shows if there is influence on ecoliteracy competence, so environmental resilience increased by 67,195. Sign 0.378 is coefficient regression which shows that the enhancement ecoliteracy competence will result in increased environmental sustainability as big as 0.378.

Based on Table 2 above, there is variable free. it is variable X ecoliteracy skills that are different in a significant way. Using an error rate of $\alpha = 5\%$ means, the independent variable has partial influence on the dependent variable Y (environmental sustainability).

From Table 3 above, it is obtained $p < 0.05$, which can conclude that variable ecoliteracy skills have their own influence which is significant for environmental resilience.

Hypothesis testing is carried out by comparing F_{count} and F_{table} to determine the decision to accept or reject the hypothesis, and how big the contribution of the independent variable (ecoliteracy skills) is to the dependent variable (environmental sustainability). With the results of the simple regression test, we obtained the calculated F_{value} , then looked for the F_{table} . It is known that the conditions for the hypothesis are that H_0 is rejected and H_a is accepted if $F_{count} > F_{table}$, and if $F_{count} < F_{table}$ then H_0 is accepted and H_a is rejected. Hypothesis that submitted is there is influence positive and significant ecoliteracy skills towards preserving nature in class students in elementary school IV in Indonesia.

Table 3. Summary of Simple Regression Analysis Results

Variable	B	Signification (P)	A	Information
Skills _ Ecoliteracy (X)	0.378	0,000	0.05	Significant

Based on calculations using the F test shown in Table 4, the calculated F is 19.025. For the significance test, the calculated F coefficient is consulted with the table F value at the significance level $\alpha = 0.05$ with df 1:170. The research results show that the calculated F value is greater than the F table ($19.025 > 3.906$). It can be concluded that the research hypothesis that there is a positive and significant influence of ecoliteracy skills on environmental sustainability in fourth grade elementary school students in Indonesia in the 2022-2023 school year is accepted.

Correlation coefficient (R Square) = 0.143 This means that there is a fairly strong influence between ecoliteracy skills and environmental sustainability. A positive number indicates that the ecoliteracy skills variable with environmental sustainability has a positive and

unidirectional relationship. Thus, it can be interpreted that the better the students' ecoliteracy skills, the better environmental sustainability will be.

Table 4. Summary Results Analysis Simple Regression

Coefficient Regression	R	R 2	Count	Table	Sig.
a = 67,195 b = 0.378	0.378	0.143	19,025	3,906	0,000

3.4. Contributions Effective

To find out how much the effective contribution of the independent variable (X) is to the dependent variable (Y) or the contribution of ecoliteracy skills to environmental sustainability, it can be done by calculating using the following formula:

$$SE = R^2 \times 100\%$$

Judging from the R^2 shown in the table in the attachment, namely 0.143, the effective contribution = $0.143 \times 100\% = 14.3\%$, meaning that the ecoliteracy skills variable influences environmental sustainability by 14.3%, while 85.7% is influenced by other factors not included in this study.

Ecoliteracy competencies and supporting factors can be said to have a significant influence on nature conservation, this is in line with Neef [22], who revealed that ecoliteracy is a skill that has a big influence on environmental balance. Thus, it can be concluded that this ecoliteracy competency is indeed necessary and needs to be mastered by someone in order to be able to adapt to and respect the natural environment. The hope is that when someone is able to have good ecoliteracy competencies, they are able to think about their own behavior and its impact on the environment, so they are able to choose wise activities that do not damage the environment and preven illegal logging [23].

3.5. Supporting Factors

Nature School

School is one of the important aspects of life which is in the spotlight in environmental development, especially regarding environmental education (PLH) which provides a special place for the environment to be able to play a role in improving human living standards so that currently it has been declared in education as efforts to protect and care for the environment [24]. One of the main aspects of advancing education from an environmental perspective is to develop an existing environmental curriculum that is applied to learning [25]. Related to the expectation of developing a curriculum that is able to provide environmental insight, this has been done by developing a natural school.

The first natural school in Indonesia was pioneered in 1998 under the name Ciganjur natural school, South Jakarta. The school provides a nature-based learning

concept where schools try to bring the material in the curriculum closer to the environment/nature [26]. Utilizing the environment as a basic capital to provide understanding and concepts from science will make students' understanding more meaningful, because the knowledge they get is not only theoretical but can directly practically tinker with materials, tools and media that they get directly from nature [27]. These activities are able to increase learning motivation, provide a wide space for student learning activities and are able to provide inspiration, critical thinking, and understanding of material concepts that are intact and meaningful.

3.6. Adiwiyata School

The Indonesian government gave direct instructions through the Ministry of Environment to implement the adiwiyata program in an effort to encourage the creation of knowledge and awareness of school members to be able to participate in environmental preservation [28]. Furthermore, in the implementation of this program the government seeks cooperation with stakeholders or partners to be able to optimize this adiwiyata program with the aim of inviting all school members, both public and private, to jointly develop learning programs both in the curriculum or in the form of additional activities outside of class hours so that schools are able to carry out teaching and learning processes related to environmental material and participate in preserving the environment in schools and their surroundings [29]. These provisions are contained in the collaboration between the State Minister for the Environment and the Minister of National Education in Decree Number: Kep.07/MENLH/06/2005 and Number: 05/VI/KB/2005 of 2010 which is intended for Regional Heads and City Education Services throughout In Indonesia, environmental education (PLH) is implemented in schools from elementary to high school levels by integrating environmental material into curricular and extra-curricular activities to create schools with an environmental culture.

The Adiwiyata school program is very promising for increasing awareness about environmental conservation. The word adiwiyata comes from the words "Adi" and "Wiyata". [30] Adi means big, great, good, ideal or perfect. Wiyata is a place where someone gets knowledge, norms and ethics in social life because the word adiwiyata can mean a good and ideal place so that knowledge, norms and ethics are obtained to form the basic foundation for humans towards creating a prosperous life and towards realizing the ideals of sustainable development from an environmental perspective.

3.7. Local Wisdom

Local wisdom is the pinnacle of cultural excellence and the main identity of the nation [31]. Local wisdom which is a cultural character has advantages, namely (1) being able

to withstand foreign culture, (2) having the ability to accommodate elements of foreign culture, (3) having the ability to integrate elements of foreign culture into local culture (4) having the ability to control, (5) able to provide direction for cultural development [32].

The local wisdom approach that exists in society has valuable potential to be utilized in dealing with environmental problems, one of which is natural disasters which always hit an area. In the perspective of local cultural wisdom, animals such as fish, crocodiles, birds, bats, other wild animals and constellations Stars are observed by indigenous peoples as a natural phenomenon which is then used as a good indication and a sign of the arrival of natural disasters or seasons in Indonesia. agriculture, like the people of Central Java. about Pranata Mangsa, the Balinese about Kerta Masa, the people of South Sulawesi call it Palontara and the people of Nusa Tenggara call it Nyali, and the Dayak people call it the Month of Farming [33]. Local wisdom has an effective role in environmental conservation efforts and disaster mitigation efforts [31].

3.8. Inhibiting Factors

The implementation of ecoliteracy in Indonesia has many inhibiting factors, including individual or internal factors and environmental/social factors that do not support it [34]. Regarding learning practices, especially in formal schools, there are still many obstacles, for example: 1) Teacher background: in this case is related to the teacher's lack of knowledge or insight regarding the ecological content learning approach carried out by teachers in general, and they are still struggling with teacher-dominated activities, and lack of space to activate students as learners. In this context, teachers do not provide sufficient space for students to explore their abilities and reconstruct their knowledge independently. Teachers have not utilized the environment with its cultural values even though they already know that these values are very beneficial for students, 2) Teaching experience: there is still a lack of teacher knowledge and insight about the environment so that the basic concept of the environment is being integrated with several basic concepts in the main material which is also an obstacle in implementing ecoliteracy learning in schools.

3.9. Solution Needed

See from problem related to sustainability environment and a number of factor barriers that have been discussed in this article, then a number of alternative solutions offered for overcoming problem include: 1) Government should be fully committed to programs and policies that support environmental conservation efforts such as natural schools and adiwiyata by not only making juridical regulations, but also needing to hold continuous teacher training so that the concept of ecoliteracy can be well understood by teachers

and can be implemented in learning in schools by actively involving students such as experimental methods, case observation, problem solving, guided inquiry and similar learning models, besides that government also must keep going carry out monitoring and evaluation related with existing programs do, give facility good means and ideal infrastructure as well element other support needed for the program to be successfully implemented with maximum, 2) Divide school natural and adiwiyata: this program is a specific effort that can support effort preservation environment because that, especially head school should increase capacity managerial and supervision for see like what planning developed learning until with practice and evaluation learning carried out by teachers. 3) Divide society: role as well as public in conserve environment is very important, so effort conserve wisdom local can inherit to generation successor need attempted with maximum through various activities in the village that are working for introduce culture and wisdom local area each so that exists synergistic relationship between activity public with draft and behavior care environment.

3.10. Limitations of the Study and Future Research

This research has several limitations. First, the scope of the research is still limited to large cities in Indonesia, namely five districts/cities Purbalingga, Pekalongan, Jambi, Sleman and Surabaya. Because this research focuses on large districts/cities, it is recommended that further research use a wider location and be more comprehensive. Second, this research uses non-probability techniques in data collection. Future research should consider using sampling techniques so that research results can be generalized to a large population. Finally, the findings from this research show that ecoliteracy competence and its supporting factors have a positive and significant relationship with nature sustainability.

4. Conclusions

The most important conclusion from this research is that there is a positive relationship between ecoliteracy competence and nature conservation. Therefore, it is very important to instill an understanding of ecoliteracy competencies starting with basic education. In addition, this research found that the ecoliteracy competence of elementary school students in Indonesia is still relatively low and is an important issue that must be considered. This study also found that there are several main reasons why elementary school students' ecoliteracy competence is low, where several factors have been identified, namely: formal schools have not been able to transmit environmentally sound knowledge well and tend to be too focused on achieving goals at school. curriculum, lack of public understanding and information about ecoliteracy, and students' concern for the environment is still low. These

three factors are interrelated in driving the fact of the low competency of elementary school students in Indonesia.

Several supporting factors for increasing ecoliteracy competence in elementary school students have been pursued, especially by the Indonesian government by establishing nature school and adiwiyata school programs. The implementation of natural schools emphasizes learning processes that are based on nature and utilize nature as a learning method. The school concept is able to bridge students closer to the environment and tries to use nature as a learning medium to convey material to students by giving them the freedom to express their creativity according to their talents and abilities. Meanwhile, the Adiwiyata school concept emphasizes learning programs that can be included in the curriculum or as additional material with the aim of increasing awareness about environmental sustainability which is instilled in students from an early age. Apart from the government, there are also factors that influence ecoliteracy, namely the local wisdom of the community. The local wisdom approach that exists in society has valuable potential to be utilized in dealing with environmental problems such as natural disasters.

Apart from supporting factors in implementing ecoliteracy in Indonesia, there are inhibiting factors including individual factors and environmental/social factors that are less supportive. Regarding learning practices, especially in formal schools, there are still problems, namely: teachers' lack of knowledge or insight regarding ecological content learning approaches, not providing enough space for students to explore their abilities and reconstruct knowledge independently, and teachers not utilizing the environment and cultural values in integrated learning.

Acknowledgements

We would like to thank PGRI Yogyakarta University and Yogyakarta State University for the support of facilities and all respondents (teachers and students) in the territory of Indonesia.

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