



Raising Students' Awareness and Attitudes on Environmental Education Issues

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Abstract. Environmental education is an important issue that is a topic at various levels of education throughout the world. Environmental education is one of the best solutions for preventing environmental damage. This research aims to analyze students' awareness and attitudes towards environmental education issues at universities in Central Java. The sampling technique used was the Lemeshow formula, with a sample size of 271 students. The data collection technique for this research is a questionnaire with the help of a Google form, which contains 18 question items regarding environmental education issues. The instruments used in this research were first tested to ensure the credibility of the research results. This research found two essential themes: awareness of knowledge about environmental education and awareness of action regarding environmental education problems. The implication of this research is the need to integrate mandatory and voluntary programs for students from various levels of education which aims to increase students' awareness of environmental education issues.

Keywords: Awareness of Action, Environmental Education, Voluntary Programs

1 Introduction

Environmental education is an important issue that affects various levels of education worldwide. Several reasons why increasing awareness about environmental education is important for researchers and scientists, namely to shape the attitudes and knowledge of students and society about environmental dangers in the future [1] [2]. This is the right step to protect the environment, promote ways for a sustainable environment, and help create an environmental map for future generations [3] [4] [5]. Doing so could raise awareness of environmental education among students, which is worthy of investigation.

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Although several authors have defined environmental education, this study follows the definitions of two authors. Environmental Education is a collective activity that teaches functions and ways to protect the environment sustainably [6] [7]. Additionally, environmental education is defined in the UNESCO-UNEP book series. Environment as education promotes environmental activities in formal and non-formal education involving society, government, and non-government organizations [8] [9]. From this definition, it can be said that environmental education is a structured educational program that provides environmental knowledge, skills, and attitudes to protect the environment sustainably.

Research in a global context shows that increasing awareness of environmental education has become one of the main topics for many researchers. Previous studies have examined environmental education awareness through solid waste management programs in formal education, and they identified that secondary and higher education students in low-income countries have a very positive awareness of environmental issues, even though they admit that they have no practical education. For environmental issues. [10] [11]. In addition, other studies also studied the need for children's educational development from early childhood to adulthood due to environmental issues [12] [13] [14]. In addition, the importance of environmental education as one of the best solutions to environmental damage problems such as water pollution [15] [16] [17]. This kind of research shows a general picture of global environmental problems, which are believed to have similar problems as in Indonesia.

Four factors influence public awareness about environmental education: Demographic factors, income factors, recycling habits, and awareness about environmental problems. These factors show that financial and environmental infrastructure can increase people's awareness of the environment [18] [19]. Previous studies explored teachers' experiences committed to environmental education [20]. This qualitative study involved fifteen teachers who taught at the school. The research shows that increasing people's awareness of environmental issues can be done through various types of direct involvement in environmental projects to have sufficient knowledge and positive attitudes toward environmental protection [19] [21]. Research on environmental problems in Indonesia has been carried out on many themes in recent years. Previous studies explored pro-ecological behavior in secondary schools in one province in Indonesia and identified that environmental behavior was a challenge for students in secondary schools [22].

Although much research has been conducted in global and Indonesian contexts, limited studies are conducted in the eastern context of Indonesia specifically to increase student awareness of Sulawesi Island. Because of these limitations and gaps, further studies are needed to increase environmental awareness. For example, research recommends further study how students understand and raise awareness about environmental education issues [23]. To answer this question, this research aims to increase students' awareness of environmental education issues.

2 Method

Table 1. Questionnaire Themes and Items

Items	Themes
1-3	Attentiveness
4-5	Interest
7-9	Prompt environmental action
10-12	Willingness
13-15	Responsibility
16-18	Environmental Indigenous value

Research methods, namely quantitative and qualitative methods. The research instrument used a questionnaire via Google Forms, and the results were analyzed quantitatively and qualitatively. The data sources in this research are students at universities in Central Java. The question items consist of 18 items. The sampling technique used the Lemeshow formula and obtained a sample size 271. This was done because the exact population size was not known. This research indicator covers six main environmental themes, as listed in Table 1.

Based on Table 1, the questionnaire items adopt the environmental awareness profile [24] [25], especially items 13-15, namely responsibility. Based on Figure 1, of the 47 participants, there were 55% male and 45% female students, with more than a quarter being in semester VIII, followed by semesters VI, IV, and II, with 50% aged between 18-22 years.

The results of this research were tested twice before being sent to research respondents. The previous questionnaire was tested first using SPSS 25 to ensure the validity and reliability of the research instrument [26]. Thus, the validity and reality of research instruments can help the credibility of research results.

3 Result and Analysis

3.1 Result

The research results show two themes related to increasing knowledge about environmental education. First, I need knowledge about environmental education, such as attention, desires, and interests. Second, awareness about educational and environmental actions such as responsibility, environmental treatment, and genuine values. Regarding awareness about environmental education knowledge, it shows that students at universities in Central Java have strong knowledge about environmental education. This can be seen from the students' attention, desire, and interest in environmental issues, which were obtained with a perfect score. This shows that they have knowledge and background in environmental education during previous studies in secondary education. In

addition, they have heard about environmental education from various media. However, some of them still don't know how to care about environmental education issues. Perhaps because they may not be able to take decisive action on how to solve environmental education problems on their own.

Apart from that, another interesting thing from the research results is that some students still pay little attention to environmental education issues. This can be seen from the middle level of interest, desire, and interest in environmental issues. There are several reasons why students may pay less attention to environmental issues, such as the inability to contribute to preventing environmental damage and the fact that they do not have a group or community to help them discuss environmental education issues. Another main theme is awareness of action in environmental education, which compares responsibility, environmental action, and the environment with genuine values. Awareness of action in environmental education.

The research results also show that students have taken limited action regarding environmental issues. This is shown by the proportion of students in the high class being lower than in the middle class. This means that students may have a high knowledge of environmental education awareness issues, but they lack the necessary action to overcome environmental problems. In most questions from Q10 to Q18, it seems that students, in this case, have struggled to contribute to environmental education in the form of concrete actions.

This also shows that some students ignore the problems of the educational environment around them. It can be seen from students' answers in questions 16 and 17 that they have very low levels of action regarding educational environmental issues. These very low actions can affect their contribution to the future environment and can affect the lives of creatures in the future.

3.2 Analysis

Based on the explanation of the results, two interesting new findings did not appear in previous researchers [18] [20] [21]. This study shows a new category of awareness about environmental education: awareness of educational knowledge of the environment and awareness of actions for environmental education. These results add to the debate of previous researchers who create awareness about behavior in environmental protection [19].

Based on these findings, he revealed that students at a college had a strong awareness of environmental education knowledge. There are several reasons that students may pay less attention to environmental issues, such as the inability to contribute to action to prevent environmental damage and the fact that they do not have a group or community to help them with environmental education issues. In addition, he concluded that students can have a high knowledge of environmental education issues, but they lack the action to overcome environmental problems.

This is due to previous research that examined environmental awareness in one of the cities in Sumatra and found that one way to increase awareness about environmental issues is through classroom environmental education programs and campaigns [27]. In

addition, previous research mentions the importance of environmental education through village government environmental cleanliness programs [28].

This research found that village environmental cleanliness programs. Can increase understanding of environmental awareness. This study shows the importance of the impact of raising environmental issues through environmental education. The aim of this research is, firstly, to address environmental education problems which are determined by other factors such as environmental infrastructure, where the availability of sufficient environmental infrastructure can help increase public awareness about environmental education problems [18] [24]. The second factor of this research is that increasing students' awareness of environmental education issues is an important component of the education system to cover environmental education issues as part of mandatory and voluntary activities so that students have experience. As previous research shows, environmental narratives [19] can describe people's lives, experiences, and emotional contributions in educational problem environments.

Finally, this research implies that action is needed to increase students' awareness and attitudes, especially about action on environmental issues. Lack of knowledge about environmental action can prevent students from directly contributing to a better environment. Thus, activities, campaigns, and public media exposure to environmental issues can work better and more effectively to promote and increase students' awareness of environmental education issues. This research suggests further comprehensive studies involving different levels of stakeholders, such as policymakers, activists, students, teachers, community leaders, donors, and government. Research can involve a variety of settings, such as schools, communities, and rural and urban settings. In addition, research can use different environmental variables, which can be carried out in longitudinal and mixed-method research designs.

4 Conclusion

The research results show two categories related to increasing awareness about mental education: First, knowledge about environmental education, such as attention, desires, and interests; second, awareness of environmental education actions, such as responsibility, environmental action, and Original Environmental Values. This research aims to develop discussions about national and global environmental education issues.

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