

PAPER NAME

AUTHOR

Raising Students' Awareness on Environ mental Education Issues.pdf

Samirah Dunakhir

WORD COUNT

CHARACTER COUNT

3608 Words

21758 Characters

PAGE COUNT

FILE SIZE

8 Pages

313.4KB

SUBMISSION DATE

REPORT DATE

May 4, 2023 7:42 AM GMT+8

May 4, 2023 7:43 AM GMT+8

2% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

• 2% Internet database

0% Publications database

Excluded from Similarity Report

- Crossref database
- · Submitted Works database
- Quoted material
- Small Matches (Less then 10 words)
- Crossref Posted Content database
- Bibliographic material
- Cited material
- Manually excluded sources

NDONESIAN JOURNAL OF EDUCATIONAL RESEARCH AND REVIEW

Volume 6 Nomor 1 2023, pp 1-8 E-ISSN: 2621-8984; P-ISSN: 2621-4792 DOI: https://doi.org/10.23887/ijerr.v6i1.59146



Raising Students' Awareness on Environmental Education Issues

Muh. Ichsan Ali^{1*}, Amirullah Abduh², Ramlan Mahmud³, Samirah Dunakhir⁴

- ¹ Civil and Planning Engineerin epartment, Universitas Negeri Makassar, Indonesia ² English Education Department, niversitas Negeri Makassar, Indonesia
- ³ Educational Science, Universitas Negeri Makassar, Indonesia
- ⁴ Accounting Department, Universitas Negeri Makassar, Indonesia
- *Corresponding author: m.ichsan.ali@unm.ac.id

Abstrak

Pendidikan lingkungan hidup merupakan isu penting yang menjadi salah satu topik di berbagai tingkat pendidikan di seluruh dunia. Pentingnya pendidikan lingkungan sebagai salah satu solusi terbaik untuk mencegah kerusakan lingkungan. Penelitian ini bertujuan untuk menganalisis kesadaran mahasiswa terhadap isu pendidikan lingkungan di universitas negeri. Penelitian studi kasus ini melibatkan siswa khusus yang mendaftar di kelas pendidikan lingkungan. Total siswa yang mendaftar di kelas studi ini adalah 47 siswa. Instrumen pengumpulan data penelitian ini adalah melalui kuesioner google form yang berisi 18 item penyadaran terhadap isu pendidikan lingkungan. Instrumen yang digunakan dalam penelitian ini telah diuji terlebih dahulu untuk memastikan kredibilitas hasil penelitian. Pendekatan analisis kuesioner menggunakan alat Ms Excell untuk persentase dan kemudian secara tematis ditempatkan dalam hasil. Hasil dari penelitian ini menemukan dua tema penting yaitu kesadaran akan pengetahuan tentang pendidikan lingkungan dan kesadaran akan tindakan terhadap masalah pendidikan lingkungan. Implikasi dari penelitian ini adalah perlunya mengintegrasikan program wajib dan sukarela dari siswa dari berbagai jenjang pendidikan yang bertujuan untuk meningkatkan kesadaran siswa tentang masalah pendidikan lingkungan.

Kata kunci: Peningkatan, Kesadaran Mahasiswa, Pendidikan Lingkungan

Abstract

Environmental education is an important issue that is one of the topics at various levels of education throughout the world. The importance of environmental education as one of the best solution for preventing environmental damage. This study aims to analyze students' awareness on environmental education issues in a pulic university. This case study research involve specific students who enroll in environmental education class. The total students who enroll in this study class is 47 students. The data collection instrument for this study is through google form questionnaires containing 18 items of awareness on environmental education issues. The instruments used in this study was pre-tested to ensure the credibility of the result of the study. The analysis approach of the questionnaire used Ms Excell tool for the percentage and then they are thematically placed in the results. The result of the study is that the research encounters two important themes: awareness on knowledge of environmental education and awareness of action on environmental education issues. The implication of the study is that there is a need to integrate both compulsory and voluntary programs from students from different levels of education aiming to raise students awareness on environmental education issues.

Keywords: Raising, Students' Awareness, Environmental Education

History: Received: January 20, 2022 Revised : January 26, 2023 Accepted: April 06, 2023 Published: April 25, 2023

Publisher: Undiksha Press Licensed: This work is licensed under a Creative Commons Attribution 4.0 License



INTRODUCTION

Environmental education is an important issue that becomes one of the contemporaray themes across different levels of education worldwide. Several reasons why raising awareness of environmental education are important for researchers and scholars such as it shapes the attitudes and knowledge of students and community on environmental dangers it can shape the earth for future long-term (Palmer, 2002; Ramadhan et al., 2019). It can help to identity suitable startegies for protecting environment, it promotes ways for re-orientating sustainable environment and it helps to creatre mapping of future sustainable environment for generation to come (Alam, 2022; Monroe et al., 2019; Zafar et al., 2020). For these reasons, raising environmental education awareness among students are worthy for further investigation.

1

Albeit environmental education have been defined by several authors, this study follows definition from two authors. Environmental education is a collective action to teach the functions and the ways to maintain environment sustainably (Izhar et al., 2022; Jebreel, 2016). In addition, environmental education is defined in the book series of UNESCO-UNEP Environmental as the education that fosters environmental activities in both formal and nonformal education involving community, government and non-government organization (Emel, 2018; Roth et al., 2021). From these definitions, it can be said that environmental education is a structured educational program that provide environmental knowledge, skill and attitude to preserve environment sustainably.

Research in global contexts shows that raising environmental education awareness have become one of the main topics for many researchers. There are previous study investigated the environmental education awareness through solid waste management program in formal education and they identified that both secondary and tertiary education students in low-income countries have very positive awareness on environmental issues, even though they acknowledge that they lack of practical education for environmental issues (Debrah et al., 2021; Zaman, 2014). In addition other study studied the need for raising awareness beginning from primary education children to late adult due to common responsibility of environmental issues (Du et al., 2018; Huang et al., 2019; Trott, 2020). Further, the importance of environmental education as one of the best solution for preventing environmental damage such as water pollution (Cutter-Mackenzie & Smith, 2003; Karataş & Karataş, 2016; Rollwagen-Bollens et al., 2022). These kinds of investigations shows a generic picture of environmental issues globally, which it is believed that it has similar issues like in Indonesia.

There are four factors affecting people's awareness on environmental education: demographic factors, income factors, recycling habits, and consciousness of environmental issues. Those factor indicates that the level of finance and the environmental infrastructure can raise people awareness of environment (Moustairas et al., 2022; Yang et al., 2022). Previous study explored teachers' experiences that committed to environmental education (Gandolfi, 2023). This qualitative study involved fifteen teachers who taught different subjects at schools. This study found out that raising people awareness on environmental issues can be done through different kinds of direct involvements in environmental projects so that they have sufficient knowledge and positive attitudes for environmental protection (Díaz-López et al., 2023; Yang et al., 2022). Research on raising environmental issues in Indonesia have been done in many themes in recent years. Previous study explored proenvironmental behaviour in high schools in one of the provinces in Indonesia and they identified that environmental behaviour becomes challenges for students in high schools (Djuwita & Benyamin, 2019).

Even though many studies have been conducted in global and Indonesian contexts, there is limited study conducted in eastern context of Indonesia particularly raising awareness of students in Sulawesi Island contexts. Due to this limitation and gap, there is a need for further study for raising environmental awareness. For example, study that recommend a further study on students understanding and raising awareness of environmental education issues (Suharti & Hapidin, 2023). To respond to this recommendation, researchers in this study conducted an study to analyze on raising students awareness of environmental education issues.

2. METHODS

The research design for this paper is a case study. A case study is applied when the research is to explore phenomena in a natural setting. The case study in this research is an

exploratory case study. The exploratory case aims to explore the perception of the participants willing to involve in this study (Gall et al., 2007; Yin, 2013). The case of this research is the issue of raising environmental education awareness for university students.

The source of the data in study is students studying in environmental departments in a public university in South Sulawesi contexts. The instruments for data collection is documents and google form questionnaires. The questionnaires consists of 18 items comprising five major environmental themes as stated in Table 1.

Items	Themes
1-3	Attentiveness
4-6	Interest
7-9	Prompt environmental action
10-12	Willingness
13-15	Responsisbility
16-18	Environmental indigenius values

Base on Table 1, the questionnaire items are adapted from environmental awareness profile (Asmahasanah et al., 2018; Khoiri et al., 2022) especially items 13-15 for responsibility. The profile of 47 participants in this study is described in Figure 1.

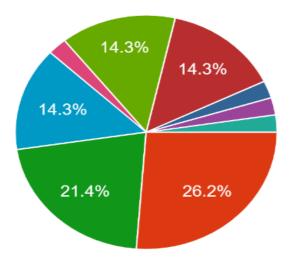


Figure 1. Profile of Participants' Semester

Base on Figure 1, from 47 participants, there are 55 % male and 45 % female students, with more than a quarter is semester VIII, followed by semester VI, IV and II with 50% age between 18-22 years old.

The questionnaire items of this study has been tested twice before sending them to participants. The tested questionaire items are important to ensure the validity and reliability of the research instruments (Gay et al., 2012). Thus, the validity and realibility of the research instruments can assist the credilibity of the research result. The analysis approach of the questionnaire used Ms Excell tool for the percentage and then they are thematically placed in the results. The thematic orders of the analysis is attentiveness to environment, interest to environmental issues, environmental actions, willingness, responsibility, and environmental indigenous values.



RESULTS AND DISCUSSION

Results

The result of the study indicates that there are two themes relating to raising environmental education awareness: 1) awareness on knowledge of environmental education such as attentiveness, willingness, and interest; 2) awareness of action environmental education such as responsibility, environmental actions, responsibility, and environmental indigenous values. The awareness on knowledge on environmentalm education is show in Figure 2.

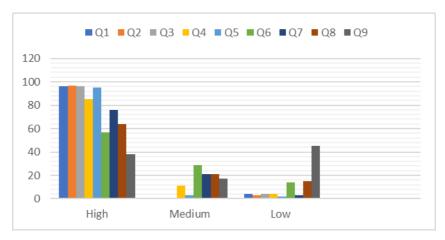


Figure 2. Awareness on Knowledge on Environmental Education

From Figure 2, it indicates that students in a public university where the reaserch was conducted have strong awareness on knowledge on environmental education. It can be seen from students' attentiveness, willingess, and interest on environmental issues are nearly in perfect score. This means that they have background knowledge of environmental education during their previous studies in secondary education. Also, they have heard about environmental education from different kinds of media. Despite their high willingess to be part of environmental education issues, there are several portions of students who have low interests on the issue of environmental education. Perhaps the reason is that they may be unable to take further clear action on how to environmental education issues on their own.

In addition, the other interesting part of the result of the study is that there are some of the students who are still less pay attention to the issues of environmental education. It can be seen from medium level of interest, willingness and interest on environmental issues. There are several reasons are that students may have less attention to environmental issues due to the unability to contribute to the action to prevent environmental damage, and they unable to find groups or community activitist to assist them with the environmental education issues.

The other major theme is awareness of action on environmental education that comparise of responsibility, environmental actions, responsibility, and environmental indigenous values. The awareness of action on environmental education is show in Figure 3.

From Figure 3, it indidates that there is limited action done by students in relation to environmental issues. It is shown by the proportion of students in high category is lower than medium category. This means that students may have high knowedge on awareness of environmental education issues, but they have less action on tackling environmental education issues. In most of the questions from Q10 to Q18, it appears that students in this case study have struggled to contribute to environmental education in action.

It also indicates that some students tend to ignore about the issue of environmental education occur near their surrounding communities. It can be seen from the responses of

students in questions 16 and 17 that they have very low action in relation to environmental educationm issues. This very low action may impact on their contribution to the better environment for future and may impact on the lives of sustainable creatures in their environments.

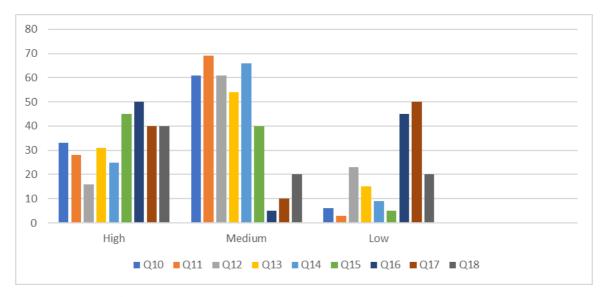


Figure 3. Awareness of Action on Environmental Education

Discussion

From the results, it encounters two new interesting findings which are not appear in previous researchers (Díaz-López et al., 2023; Gandolfi, 2023; Moustairas et al., 2022; Yang et al., 2022). This study create new categories of awareness on environmental education which are awareness on knowledge of environmental education and awareness on action for environmental education. This result add the debate of the previous researcher who create the awareness on behaviour on environmental protection (Yang et al., 2022).

Base on the finding it reveal that students in a public university where the reaserch was conducted have strong awareness on knowledge on environmental education. There are several reasons are that students may have less attention to environmental issues due to the unability to contribute to the action to prevent environmental damage, and they unable to find groups or community activitist to assist them with the environmental education issues. Moreover it also found that students may have high knowedge on awareness of environmental education issues, but they have less action on tackling environmental education issues.

It is in line with previous study investigated the environmental awareness in one of the cities in Sumatera and found out that one of the ways to improve awareness of environmental issues is through classroom environmental education programs and campaign (Darmawan & Dagamac, 2021). In addition previous research state it is importance of raising environmental education through government village program of environmental cleaness (Nasihah & Tabroni, 2023). This study found that village program of environmental cleaness contributes to better understanding of environmental awareness. These studies show the importance and the impact of raising environmental issues through environmental education.

The implication of the new result of the study is that, firstly, it can be part of the debate on environmental education issues that are determined by other factors such as environmental infrastructure, where the availability of sufficient environmental infrastructure can assists the raise of people awareness in environmental education issues (Asmahasanah et al., 2018; Moustairas et al., 2022). The second implication of the research is that there is

important elements of the educational system to include environmental education issues as part of compulsory and voluntary activities so that students have experience and as previous study indicates as environmental narrative (Yang et al., 2022). The environmental narrative can portray the lives, experiences and emotional contribution of people in environmental education issues.

Finally, the implication of this study is that there is a need to raise students' awareness especially in relation to the action for environmental issues. Lacking knowledge on environmental action can prevent students from conduction the direct contribution for better environmental environment. Thus, the activities, campaigning, and public media exposures of environmental issues can be better work and effective if they relates to the example of promoting and raising awareness of students on environmental education issues. This research suggests further comprehensive studies which involves different levels of stakeholders such as policy makers, activitsts, students, teachers, community figures, donors and governments. The research can involve different settings such as school, community, and rural and city environments. Further, the research can use different environmental variables that can be conduceted longitudinal and mix-method research designs.

4. CONCLUSION

It appears that the result of the study indicates that there are two important categories relating to raising environmental education awareness: 1) knowledge awareness of environmental education such as attentiveness, willingness, and interest; 2) action awareness on environmental education such as responsibility, environmental actions, responsibility, and environmental indigenous values. These results of study contibutes to further development of debates on environmental education issues both nationally and globally.

5. REFERENCES

- Alam, A. (2022). Mapping a sustainable future through conceptualization of transformative learning framework, education for sustainable development, critical reflection, and responsible citizenship: an exploration of pedagogies for twenty-first century learning. ECS Transactions, 107(1), 9827. https://doi.org/10.1149/10701.9827ecst.
- Asmahasanah, S., Ibdalsyah, I., & Sa'diyah, M. (2018). Social Studies Education in Elementary Schools Through Contextual REACT-Based on Environment and Sociopreneur. *International Journal of Multicultural and Multireligious Understanding*, 5(6), 52. https://doi.org/10.18415/ijmmu.v5i6.487.
- Cutter-Mackenzie, A., & Smith, R. (2003). Ecological literacy: The 'missing paradigm' in environmental education (part one). *Environmental Education Research*, 9(4), 497–524. https://doi.org/10.1080/1350462032000126131.
- Darmawan, M. D., & Dagamac, N. H. (2021). Situation of environmental education in senior high school programs in Indonesia: Perspectives from the teachers of Palembang. *Interdisciplinary Journal of Environmental and Science Education*, 17(3), e2241. https://doi.org/10.21601/ijese/9605.
- Debrah, J. K., Vidal, D. G., & Dinis, M. A. P. (2021). Raising awareness on solid waste management through formal education for sustainability: A developing countries evidence review. *Recycling*, 6(1), 6. https://doi.org/10.3390/recycling6010006.
- Díaz-López, C., Serrano-Jiménez, A., Chacartegui, R., Becerra-Villanueva, J. A., Molina-Huelva, M., & Barrios-Padura, Á. (2023). Sensitivity analysis of trends in environmental education in schools and its implications in the built environment. *Environmental Development*, 45(3), 100795.

- https://doi.org/https://doi.org/10.1007/978-3-031-08476-8_7.
- Djuwita, R., & Benyamin, A. (2019). Teaching pro-environmental behavior: A challenge in Indonesian schools. *Psychological Research on Urban Society*, 2(1), 9. https://doi.org/10.7454/proust.v2i1.48.
- Du, Y., Wang, X., Brombal, D., Moriggi, A., Sharpley, A., & Pang, S. (2018). Changes in environmental awareness and its connection to local environmental management in water conservation zones: The case of Beijing, China. *Sustainability (Switzerland)*, 10(6). https://doi.org/10.3390/su10062087.
- Emel, O. B. (2018). Development of an Ecoliteracy Scale Intended for Adults and Testing an Alternative Model by Structural Equation Modelling. *International Electronic Journal of Environmental Education*, 8(1), 15–34. https://eric.ed.gov/?id=EJ1181007.
- Gall, M., Gall, J., & Borg, W. (2007). *Educational research: an introduction*. Pearson/ Allyn & Bacon.
- Gandolfi, H. E. (2023). Teaching in the age of environmental emergencies: a "utopian" exploration of the experiences of teachers committed to environmental education in England. *Educational Review*, 75(2), 1–21. https://doi.org/https://doi.org/10.1080/00131911.2022.2163378.
- Gay, L. R., Mills, G. E., & Airasian, P. (2012). *Educational Research: Competencies for Analysis and Application*. Pearson Education Limited.
- Huang, T. C., Lin, W., & Yueh, H. P. (2019). How to cultivate an environmentally responsible maker? A CPS approach to a comprehensive maker education model. *International Journal of Science and Mathematics Education*, *17*, 49–64. https://doi.org/10.1007/s10763-019-09959-2.
- Izhar, G., Wardani, K., & Nugraha, N. K. (2022). The Development Environmental Literacy Media Learning for Elementary School Student. *Journal of Innovation in Educational and Cultural Research*, *3*(3), 397–404. https://doi.org/10.46843/jiecr.v3i3.116.
- Jebreel, M. (2016). A Comparative Survey of Environmental Education Goals Between the UNESCO Framework and 10th Grade Palestine Curriculum. *International Journal of Curriculum and Instruction*, 8(2), 1–17. http://localhost:8080/xmlui/handle/123456789/7784.
- Karataş, A., & Karataş, E. (2016). Environmental education as a solution tool for the prevention of water pollution. *Journal of Survey in Fisheries Sciences*, *3*(1), 61–70. http://sifisheriessciences.com/index.php/journal/article/view/100.
- Khoiri, A., Sunarno, W., Sajidan, S., & Sukarmin, S. (2022). Analysing students 'environmental awareness profile using strategic environmental assessment. *F1000 Research*, *10*(305), 1–27. https://doi.org/10.12688/f1000research.51523.2.
- Monroe, M. C., Plate, R. R., Oxarart, A., Bowers, A., & Chaves, W. A. (2019). Identifying effective climate change education strategies: a systematic review of the research. *Environmental Education Research*, 25(6), 791–812. https://doi.org/10.1080/13504622.2017.1360842.
- Moustairas, I., Vardopoulos, I., Kavouras, S., Salvati, L., & Zorpas, A. A. (2022). Exploring factors that affect public acceptance of establishing an urban environmental education and recycling center. *Sustainable Chemistry and Pharmacy*, 25, 100605. https://doi.org/10.1016/j.scp.2022.100605.
- Nasihah, F., & Tabroni, I. (2023). Environmental Cleanliness: Village Government Program In Indonesia. *Kampret Journal*, 2(2), 50–55. https://doi.org/10.35335/kampret.v2i2.103.
- Palmer, J. (2002). Environmental education in the 21st century: Theory, practice, progress and promise. Routledge.
- Ramadhan, S., Sukma, E., & Indriyani, V. (2019). Environmental education and disaster

- mitigation through language learning. *IOP Conference Series: Earth and Environmental Science*, 314(1), 0–9. https://doi.org/10.1088/1755-1315/314/1/012054.
- Rollwagen-Bollens, G., Holmlund, T., & Wait, J. (2022). Actively Participating in University-Sponsored Ecological Research Increases High School Students' Knowledge of and Attitudes About Science. *Frontiers in Environmental Science*, 9(January), 1–15. https://doi.org/10.3389/fenvs.2021.797769.
- Roth, R. E., Mullins, G. W., & Davis, C. B. (2021). *Unesco-UNEP International Environmental Education Programme Analysis Project: A Review of Environmental Education Documents Numbers* 2, 3, 4, 5, 7 and 8. UNESCO-UNEP.
- Suharti, Y., & Hapidin, Y. R. (2023). Empowering Parents: The Conceptualization Of Marine Environmental Awareness In Early Childhood. *Journal of Positive School Psychology*, 7(1), 481–489. https://journalppw.com/index.php/jpsp/article/view/15169.
- Trott, C. D. (2020). Children's constructive climate change engagement: Empowering awareness, agency, and action. *Environmental Education Research*, 26(4), 532–554. https://doi.org/10.1080/13504622.2019.1675594.
- Yang, B., Wu, N., Tong, Z., & Sun, Y. (2022). Narrative-based environmental education improves environmental awareness and environmental attitudes in Children aged 6–8. *International Journal of Environmental Research and Public Health*, *19*(11), 6483. https://doi.org/10.3390/ijerph19116483.
- Yin, R. (2013). Case study research: Design and methods. California: Sage Publications.
- Zafar, M. W., Shahbaz, M., Sinha, A., Sengupta, T., & Qin, Q. (2020). How renewable energy consumption contribute to environmental quality? The role of education in OECD countries. *Journal of Cleaner Production*, 268, 122149. https://doi.org/10.1016/j.jclepro.2020.122149.
- Zaman, A. U. (2014). Measuring waste management performance using the "Zero Waste Index": The case of Adelaide, Australia. *Journal of Cleaner Production*, 66, 407–419. https://doi.org/10.1016/j.jclepro.2013.10.032.



2% Overall Similarity

Top sources found in the following databases:

• 2% Internet database

Internet

• 0% Publications database

TOP SOURCES

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

researchgate.net
Internet

eprints.unm.ac.id



Excluded from Similarity Report

- Crossref database
- Submitted Works database
- Quoted material
- Small Matches (Less then 10 words)
- Crossref Posted Content database
- Bibliographic material
- Cited material
- Manually excluded sources

EXCLUDED SOURCES

ejournal.undiksha.ac.id

Internet

13%