



Author's Ethical Behavior for Conducting Environmental Education-Related Research

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Abstract

Purpose: Environmental education-research mainly focuses on the relationship between people and the environment. The purpose of this study is to focus on elaborating on the various ethical behaviors crucial in environmental education-related research. The study utilized a literature review of initial studies conducted on the topic as the primary source of information. **Research design, data and methodology:** This study has selected the literature content analysis as a research design because this analysis tool provided the present author numerous and tremendous previous works in the realm of authors' ethical issues within environmental education area and prior research already confirmed the high quality of an instrument. **Results:** Based on the investigation of the literature analysis, the findings emphasize that, while making any choice regarding environmental studies and research, authors and researchers must consider how ethical behavior might be applied to the particular circumstance. There are three ethical behaviors for authors and they can be founded in the section 3 of this study. **Conclusions:** As a conclusion of this study, three major subfields of environmental ethics—resource ethics, animal ethics, and ethics of nature protection—serve as the foundation for ethical behavior in research on environmental education. The ethical treatment of scarce resources, deployable resources, and environmental media.

Keywords : Author's Ethical Behavior, Research Ethics, Environmental Education, Content Analysis Approach

JEL Classification Code: C25, Q01, K32

1. Introduction

Environmental education-related research mainly focuses on the relationship between people and the environment. The field focuses on assessing the interplay between social, legal, management, and scientific aspects of environmental issues. The author's ethical behavior for

conducting environmental education-related research refers to a set of principles that guide the design and practices of environmental education-related research (Jorgenson et al., 2019). There are various principles on which authors can draw ethical behavior about various environmental topics. Ethical behavior implies that authors have based their behavior on environmental, ethical values, and principles that guide their approach toward other living beings and nature.

There are various reasons why authors need to adhere to ethical behaviors in environmental education-related research. Ethical behavior is crucial in achieving the research aim, such as knowledge, truth, and avoiding mistakes (Rolston, 2020). For instance, ensuring that every living creature involved in research is treated equally will

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minimize error in an environmental study and ensure that the data obtained from the study promotes the truth as it exists in the environment. Ethical behavior in environmental education-related research also ensures that authors can be held accountable for their actions in the environment when conducting the study. Accountability ensures that researchers and students conduct their studies on sufficiency and compassion. The principle mandates that every living thing in the environment is entitled to adequate resources to live and flourish.

This study will focus on elaborating on the various ethical behaviors crucial in environmental education-related research. The study utilized a literature review of initial studies conducted on the topic as the primary source of information.

2. Literature Review

Szabo and Webster (2021) conducted a study on research ethics in environmental education. The author highlights that promoting sustainability in environmental education-related research can result in an extension of justice into the future where the environment can provide for the needs of the future population. They define sustainability as meeting the current population's needs without compromising the future generation's ability to meet their own needs. Sustainable environmental education-related research is crucial because it can lead to the attainment of high-quality information associated with sustainable environmental science, which can help improve the general environmental practice. The author highlights that the research ethic of justice and sustainability is crucial because it focuses on environmental practices that ensure that the current generation's actions will not affect the future generation's life. The author defines the ethical principle of sustainability as a concept that focuses on ecology, economics, and equity. On the other hand, environmental justice is defined as a movement focusing on the different disparities in access to benefits and risk exposure. This study is of high reliability and validity, considering that the author used a large sample size.

A study by the prior research (Singh & Chen, 2019) focused on the different research ethics in environment education-related research. One of the main ethical principles highlighted in the study is the principle of sufficiency and compassion which focuses on how a researcher should not waste resources intended for utilization by all individuals in an environment. According to the author, sufficiency and compassion are emerging research ethic principles even though the motivation for making human decision-making can be diverse in environmental education-related research.

According to Mathevet et al. (2018), the research ethic of solidarity and participation arises from the impact of humans on natural ecosystems globally and the functioning of the global climatic drivers worldwide. The author states that solidarity and participation have emerged as crucial research ethics in environmental education-related research. The researcher highlights that the research ethic adds an essential dimension to environmental education because it allows the learners to understand the importance of including all the relevant parties in the decision-making process. The research ethic I based on the concept of social engagement involves the attainment of information from the different stakeholders through various platforms, such as citizens' engagement on various issues such as sustainable development and conservation. The author indicates the importance of the researcher engaging meaningfully with the community in which they practice. The primary purpose of the engagement will be to promote the participation of the community members, learning, and understanding in the research process. Engaging the community will also increase the participation of underrepresented groups, increase the capacity for research and education, and distribute information broadly to help educate and benefit the local community.

Ardoin and Bowers (2020) indicates that environmental researchers should be able to differentiate between facts, opinions, and hypotheses when conducting environmental education-related research. Knowing the difference is crucial when conducting education-related research because the information obtained from the study will be used to educate others; hence providing wrong information can be misleading. The study indicates that researchers should focus on determining whether a statement is a personal opinion mainly because an opinion statement cannot be tested due to a lack of a supporting document; hence it cannot be categorized as a fact. This research ethic is essential because it ensures that every word with a specific meaning is differentiated from the other.

Another study by Khanal et al. (2022) highlights that collaboration is a vital research ethic when conducting environmental research. The author argues that environmental researchers should collaborate with other researchers whenever possible and appropriate to facilitate the interchange and dissemination of environmental knowledge. Collaboration is a crucial research ethic in education-related research because scientists will be able to obtain an integrated finding that learners will be able to use. Collaboration between researchers is also crucial because it will reduce the pressure on environmental researchers wanting to produce usable results. The study also indicates that collaboration involves interaction between environmental scientists and the general society. Another research ethic highlighted in the study is that

environmental scientists who conduct education-related research should not plagiarize the work of other researchers in verbal or written form without giving the researchers proper credit for their work and ideas (Farahian et al., 2020). In a situation where the work of other researchers is used, individuals should make every effort to avoid misrepresentation, considering that the research is for educational purposes.

A study conducted by Gerding et al. (2020) highlights that environmental researchers conducting a study should only focus their professional qualification and guidance on the specific topics in which they are informed and qualified through professional training. This is a critical research ethic because it allows the researchers to accurately present environmental understanding and knowledge of what they understand and avoid disseminating erroneous, biased, or exaggerated information about the environment. The author indicates that researching an informed and qualified topic will enable one to differentiate between what is accurate and what is not when collecting information. Being qualified also enables one to be better in determining the different areas where information is technically correct but utilized to draw questionable conclusions.

3. Findings

3.1. Research Ethics in Environmental Education-Related Research

According to the literature review done above, the various research ethics necessary in studies about environmental education are derived from a wide range of sources, including Greek philosophy, religious instruction, and contemplation of the human condition. The findings emphasize that, while making any choice regarding environmental studies and research, authors and researchers must consider how ethical behavior might be applied to the particular circumstance (Attfield, 2018). According to the literature review, the three main ethical practices are justice and sustainability, sufficiency and compassion, and solidarity and involvement.

3.2. Justice and Sustainability

This ethical behavior focuses on equal treatment of anyone or anything considered equal unless there is a sufficient reason for unequal treatment. This behavior mainly concerns inequitable access to various environmental resources such as clean food, air, and water. The ethical behavior of justice also focuses on animal welfare (Clay & Reardon, 2019). It is crucial to incorporate sustainability in environmental research because it will

highlight the importance of managing and protecting the environment and the available natural resources, ecosystems, climate, and atmosphere to ensure that future generations will have the necessary resources.

3.3. Sufficiency and Compassion

The research ethic of sufficiency and compassion emphasizes that all life forms have a right to sufficient goods to survive and thrive. This study ethic also suggests that people should not hoard or waste resources meant to be sufficient. The ability to keep the sufficiency standard in research on environmental education necessitates collaboration and original thought (Paul, 2022). This is a fundamental ethical action because it guarantees that everyone in a given setting has access to the resources, they require to live a life with dignity. The idea of moral significance is closely tied to the research ethic of sufficiency. It is crucial to include the need of other individuals in the process of considering what is essential or of concern in environmental education-related research. Considering other people's needs, such as the needs of poor individuals in society or developing countries, promotes the moral principle of sufficiency.

This ethical behavior is crucial in considering the different categories of people that should be considered in environmental education-related research. The behavior underlies the practical practice of empathy. It is essential to highlight that this research ethic can conflict in the minds of other individuals based on the argument that the environment and the Earth do not have adequate goods to meet the needs of every person (Holmberg & Sandbrook, 2019). In order to apply the principle of sufficiency in environmental education-related research, researchers need to ask themselves whether the research will permit the different parties involved, such as the poor in society, to have adequate resources to live and flourish. It is also essential to consider any other aspect of environmental research that indicates the presence of waste of resources or utilization of excess resources.

The research ethic of compassion focuses on the notion of sufficiency to the Earth. In environmental education-related studies, it is essential to consider the moral importance of other creatures, plants, and other elements, including water, air, and soil. The different non-human living forms in the environment have moral importance equal to that of people. Nevertheless, some people believe that although non-human life forms have moral importance, humans in the environment have a larger moral relevance. The main reason compassion is considered a crucial research ethic in environmental education-related research is because the future of human beings is tied to the well-being of the various creatures in the environment. In order

to apply the research ethic of compassion in environmental education-related research, individuals should assess the duties that they have to the other creatures which are likely to be affected by their actions (Malikhao, 2018). People should also consider the meaning of sufficiency for other creatures within the environment, especially those threatened with extinction.

3.4. Solidarity

In environmental education-related research, the research principle of solidarity focuses on how individuals relate to each other as a community. The principle's central assumption is that every individual is part of a family (biological family), local community, and national community (Harris, 2018). The main objective of the principle is to allow individuals to consider the extended community and to act in a manner that reflects concern for the well-being of other people. The main aspects of this principle in environmental education-related research include considering the various human stakeholders involved in a situation, the natural stakeholders, the ecosystem involved, and the presence of vulnerable human or non-human stakeholders.

Because it emphasizes the idea of solidarity, the research ethic of participation is also crucial in studies about environmental education. Most environmental issues on the planet are primarily the consequence of individual actions, which have far-reaching effects on the populace (de Wet & Odume, 2019). Governments and institutions decide on environmental matters without the general population's permission. Due to a lack of participation, people have been impacted by numerous environmental decisions without being aware of them or how they would influence their environment in the long run. The ethical principle of participation in environmental education-related research advocates for recognizing the different parties that should be involved in the decision-making process (Harris, 2017). This principle requires environmental authors and researchers to practice transparency that ensures that every party has access to the same information that everyone has. The primary considerations under this ethical principle are to assess various parties that have a say on how the environmental decision will be made and whether there are essential parties that cannot represent themselves in the decision process.

4. Future Direction

This study shows that many ethical behaviors can be used in moral reasoning on various environmental

problems. The main ethical behaviors explained in this study include justice and sustainability, sufficiency and compassion, solidarity, and participation (Akpan & Leonard, 2018). This article has touched on how environmental concerns connected to research on environmental education push people to go beyond the ethical behaviors that have been highlighted to include the welfare of the natural world and our responsibility to it. Since they guarantee that people can distinguish between good and evil, ethical behaviors in environmental education-related research are essential, particularly when there are numerous environmental concerns and the interests of multiple stakeholders. It is crucial to remember that ethical conduct and values are distinct from scientific and environmental ones. This is because they are more likely to provide many right responses and can be extremely helpful in evaluating competing claims, the decision-making process, or a particular decision outcome.

Three major subfields of environmental ethics—resource ethics, animal ethics, and ethics of nature protection—serve as the foundation for ethical behavior in research on environmental education. The ethical treatment of scarce resources, deployable resources, and environmental media, including water, soil, air, and climate, is justified. The principles also support the humane treatment of animals, particularly weaker animals who are more likely to experience suffering due to human environmental activity. The ethical handling of collective biotic entities, including populations, species, and ecosystems, is a crucial component of ethical behavior. Because it adds a new level to resource conservation, there should be an ethical relationship between people and the environment. Ethics is essential while researching environmental education since it is the foundation for arguments about environmental concerns, including sustainability, animal rights, and environmental protection.

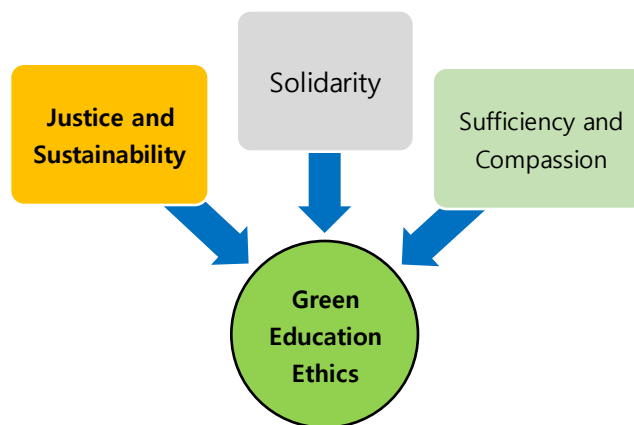


Figure 1: Summary of the Findings

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