

Qualitative analysis of teachers' views towards environmental education in rural schools

Article info

Article Type:

Original Research

Author:

Alireza Nazarian¹

Article History:

Received: 2024.02.16

Accepted: 2024.06.13

Published: 2024.06.30

Abstract

In recent years, attention to environmental education especially in rural environments has attracted the attention of many educational experts. The aim of the present study was to investigate the experiences of teachers in relation to environmental education in rural schools. To serve that end, a qualitative approach and phenomenological method were used. Consequently, unstructured interviews were conducted with 13 teachers using the purposeful sampling method. To analyze the data, thematic analysis was used. The analysis of the interviews revealed three main themes (regressive approach, progressive approach, and indifference approach), 13 sub-themes, and 31 refined themes. The findings of the research indicated teachers' lack of real involvement in environmental education, lack of trust in the efficiency of environmental education, absence of employing of new methods, superficial knowledge about the environment, and absence of attempts to use new methods in education. It is concluded that teachers play a significant role in environmental education, so training and preparing them can improve environmental education.

Keywords: Environmental Education, Teachers' Views towards Environmental Education, Environmental Education in Rural Schools

¹ Master of Curriculum Development, Faculty of Education and Psychology, Birjand University, Birjand, Iran: alireza.nazarian.tbs@gmail.com

1. Introduction

The current century can be interpreted as a century of extensive changes and transformations in various fields (Belt, 2023). These extensive changes and transformations, which are caused by social, political, economic and information technology developments in the current world, have a huge impact on various aspects of human life, including the environment (Gafoor, 2021). More precisely, the above changes have led to widespread damage to the environment and its various dimensions. Today, the environmental crisis is very serious and its scope has become very wide, so that humans have realized its harmful consequences on their lives and health (Kratel & Meski, 2022). Examples of these damages can be found even in developed countries. Indeed, millions of people suffer from hunger, homelessness and health issues (Bahrami, 2021). Global changes caused by global warming, the disposal of millions of tons of hazardous waste produced by industrialized countries, and the use of pesticides and herbicides, which have caused death and harm to wildlife and aquatic organisms, are all serious alarm bells which require immediate attention to solve them (Janes et al., 2023). In addition, issues and challenges such as soil degradation, destruction of habitats, loss of some plant and animal species, and destruction of forests are very serious (Mónus,2022). The above cases have revealed the bitter truth to everyone that the environment has a significant impact on social, political, cultural and educational domains (Arafah, 2020).

Researchers believe that a healthy environment is one of the determining and influencing factors on the development and growth of all countries (Verhal & Zoetermer, 2022). Without a healthy environment, we cannot talk about the physical and mental health of humans (Warsil, 2019). The environment has many visible and hidden effects on various aspects of human life. It seems that due to the fundamental role of the environment on human life, it is inevitable to pay attention to this important issue in the formal education system (Jaafari, 2023). In this regard, education systems and educational centers are especially expected to create the necessary educational and environmental cultural needs among students for effective preservation and care of the environment. In fact, the task of the educational system in connection with environmental education is to create a sense of caring for the environment among students (Edwards et al., 2022). At the same time, it is assumed that environmental education is one of the

important requirements of sustainable development. A development that typically meets the needs of current generations without negatively affecting the future generations and their needs, and within a framework in which humans establish a peaceful coexistence with their environment and use its natural resources in a forward-looking manner. It is in this direction that UNESCO recognizes environmental education as education for sustainable development and emphasizes the integration and intertwining of these two concepts (Ratnaviti et al., 2023).

2. Review of the Related Literature

From the point of view of Botkin and Keller (2022), the environment is a complex network that connects animals, plants and other forms of life. Benson (2020) believes that the environment is a system in which everything is in harmony with each other and the change of one component sooner or later leads to the change of other components. They believe that the concept of the environment does not only refer to a wide area where people live; rather, the environment includes an ecosystem in which millions of creatures live and provides a large collection of raw materials for the economy of any country (Lindgren et al., 2023). Regardless of the different definitions and explanations of the concept of environment, it should be emphasized that the promotion of scientific topics and improving the understanding of the young generation in the field of environment should be placed in the agenda of education. Based on this, what is called the process of environmental education, aims to compile and design a set of environmental education and learning in a coherent and purposeful way and the possibility of transferring it to teenagers and children who are citizens (Sebastian, 2020).

Considering the above points, one of the most important and basic responsibilities of schools is to train informed, committed, active, creative and understanding citizens who have a special sensitivity to the environment (Seva, 2022). People who have useful and appropriate information about the environment, can adapt themselves to the environment. In fact, schools are the place where students get to know their rights and responsibilities towards the environment, so they can prepare themselves to live in it (Ebrahimi, 2018). In this kind of training, students' awareness, knowledge, and skills are improved which

lead to understanding, commitment, informed decisions, and constructive activities to manage all the interconnected components of the environment. Also, environmental education increases public knowledge and awareness. Further, environmental education increases knowledge and awareness about the harmful environmental consequences of human activities and acquires the necessary skills to preserve the environment throughout life and create a sense of responsibility in citizens towards the environment (Chezan and Drasgo, 2020). In other words, environmental education aims to prepare a citizen who is aware of the biological environment and its related issues and is eager to use and provide solutions to solve its problems. Environmental education seeks to improve students' sense of appreciation, perception, interest and positive attitude towards the environment, as well as the development and cultivation of students' understanding, practical experiences and appreciation of the material and biological systems on the earth (Senska et al., 2023). Indeed, environmental education is a permanent process during which students acquire the necessary awareness, values, attitudes, skills and experiences about the environment around them and through it they are able to solve problems related to the environment (Senska et al., 2023).

Accordingly, it seems that creating a healthy environment is something that can be taught, developed, and nurtured, and today education plays an irreplaceable role in preserving and developing the environment (Bodal, 2014). Due to the teachability of an important issue such as the environment, addressing it in schools and curriculum can lead to mindful environmental behaviors in students (Pelor, 2019). This issue is of utmost importance in rural schools because the essence of life in the village is tied to the environment (Ismaili et al., 2019). In rural environments, due to special ecological conditions, the dependence of humans on the environment is very high. In villages, cultural customs, values and beliefs and even jobs are closely dependent on the environment. In such an environment, neglecting the environment causes harmful effects in various social, cultural and economic dimensions. Of course, the school as the educational institution can have long-term positive and permanent effects in this area. It seems that the school education plays a key role in the village and the school teachers and staff as active educational players can play an active role in directing the constructive environmental behaviors in students (Shahraki, 2018). Therefore, creating a healthy

educational environment in the rural schools can have important outputs for the village (Hojjati, 2015). Looking at the state of the environment in the villages, we can realize that the cause of the transformation and destruction is due to the ignorance or indifference of man to the surrounding environment, human selfishness, and ignoring the values and customs to preserve and protect the environment. (Amini, 2022). Education can have a significant effect on strengthening environmental culture and achieving sustainable development goals. Students' familiarity with basic environmental sciences at different levels of education can foster a spirit of adaptability and a sense of responsibility in protecting resources (Arzengtin, 2019). However, the role of the teacher has not been given much attention to the best of researcher's knowledge (Lesse, 2021). On the other hand, scant research such as Ershadi and Asgari (2023), Hosseinikhah (2023), Azizzadeh et al. (2022), Meiboudi and Saeedi (2022) have addressed dimensions such as the challenges of environmental education, content analysis of books from the perspective of attention to the environment, and evaluation of environmental education. However, an important element such as the role of the teacher has not received enough attention. Obviously, in such a situation, the no educational methods will have remarkable results without considering the views and beliefs of the teachers (Ramazani, 2022). Hence, considering the above points the present research seeks to answer the following question:

- What are teachers' reflections towards environmental education in rural schools?

3. Methodology

The current research was conducted using qualitative and phenomenological (descriptive) methods. The purpose of phenomenological research is to describe life experiences as they happened in life. Strabert and Carpenter (2003) consider phenomenology as a practice whose purpose is to describe specific phenomena or the appearance of things and life experiences. The focus of phenomenology is on life experiences, because these are the experiences that make the meaning of any phenomenon for the individual and reveal the real facts (Edibhaj Bagheri et al., 2019), and because the phenomenological method tries to describe human experiences in the context and context in which they occur and provides the richest and most descriptive

information, so using this method is suitable for clarification and deep description. The research participants included 13 teachers who were familiar with the subject of environmental education in the classroom. Research participants were selected based on non-random purposeful sampling technique. Based on purposeful sampling, only teachers who had the experience of environmental education were selected. The number of samples was determined based on theoretical data saturation; that is, the number of interviews progressed until the researcher's information in the field of research was saturated and no other information was added after that. In order to measure the validity of the research, the interview questions were modified and approved by four expert professors in the relevant field after they were designed. All interviews were audio recorded after obtaining the consent of the interviewees. Then, the recorded interviews were carefully listened to by the researcher and transcribed verbatim. Next, the "peer review" method was used to confirm the validity of the interviews. In this way, the written text of the interview was sent to the participants again to confirm the accuracy of the content and to revise the content if necessary. Data analysis was done by thematic analysis method in such a way that after studying the written text of the interviews and constantly comparing the concepts and phrases, semantic codes were selected and main themes were emerged following Lincoln and Guba's guidelines (1985). The demographic information of the participants in this research are presented in the following table:

Table 1. Demographic information of participants in the research

No	Job	Education	Gender	Experience
1	Primary school teacher	Bachelor's degree	Female	10 years
2	Primary school teacher	Master's degree	Female	14 years
3	Primary school teacher	Master's degree	Male	17 years
4	Primary school teacher	Bachelor's degree	Female	22 years
5	Primary school teacher	Master's degree	Male	8 years
6	Primary school teacher	Bachelor's degree	Female	16 years
7	Primary school teacher	Master's degree	Male	7 years
8	Primary school teacher	Bachelor's degree	Male	22 years
9	Primary school teacher	Master's degree	Female	16 years
10	Primary school teacher	Bachelor's degree	Female	13 years
11	Primary school teacher	Bachelor's degree	Male	18 years
12	Primary school teacher	Master's degree	Female	14 years
13	Primary school teacher	Bachelor's degree	Male	19 years

4. Findings

After analyzing a total of 13 interviews with teachers who were familiar with the phenomenon of environmental education and checking and re-checking them recursively, three main themes (regressive approach, progressive approach, and indifferent approach) and 13 sub-themes, and 31 refined themes were emerged, which are presented in the following table:

Table 2. Main, Sub-, and Refined abstract and refined themes extracted from the interviews

Main Themes	Sub-themes	Refined themes	Sample Extract
Regressive approach	Lack of deep involvement and empathy of teachers	The lack of importance of environmental education for teachers Not having the necessary spirit for environmental education Lack of strict adherence to the implementation of environmental education	<i>For some teachers, training such as environmental training is not very important (Participant No. 2). Some teachers do not have the spirit to develop environmental education due to the problems they have and do not implement these educations properly (Participant No. 4).</i>
	Lack of academic involvement of teachers	Using inefficient methods in environmental education Lack of new knowledge about environmental education Biased education in the field of environment	<i>Environmental education is a new issue that requires new tools, traditional methods cannot be used (Participant No. 13). Anyone who wants to do education related to the environment must have up-to-date knowledge in this field, unfortunately, some teachers do not have such knowledge and act completely sloppy (Participant No. 7).</i>
	Lack of intellectual involvement of teachers	Lack of intellectual concern in the field of environmental education Traditional thoughts about environmental education superficial view of environmental education	<i>It seems that until something is a mental concern of people, they don't do it properly, some of our teachers don't care about the environment (Participant No. 1). The traditional and superficial view of environmental education has become a big challenge in this field, some teachers think that they can do this education by providing some information (Participant No. 9).</i>
	Lack of teachers' belief involvement	Lack of deep belief in environmental education Not believing in the effectiveness of environmental education	<i>Some teachers reluctantly deal with a subject such as environmental education and do not believe in it from the bottom</i>

Qualitative analysis of.....

			<p><i>of their hearts (Participant No. 11).</i></p> <p><i>One of my colleagues said that such training has no results. (Participant No. 8).</i></p>
	Lack of skill involvement of teachers	Lack of environmental education teaching skills Lack of having the skills to transfer environmental education correctly	<p><i>Every new problem that is raised in education requires a new method and new methods should be used in this field (Participant No. 4).</i></p> <p><i>Unfortunately, some teachers are weak in the suitable transfer of information related to environmental education (Participant No. 6).</i></p>
Progressive approach	Deep and empathetic involvement of teachers	Using creative methods in environmental education Trying to be equipped with modern knowledge in the field of environment	<p><i>Teachers who are aware of the importance of environmental education always use creative methods in this field (Participant No. 3).</i></p> <p><i>A teacher who considers environmental education important, tries to equip himself with the latest knowledge in this field (Participant No. 11).</i></p>
	Scientific involvement of teachers towards environmental education	Research in the field of environmental education Foresight in the field of environmental education Updating information on the environment	<p><i>Teachers who accept environmental education in a deep way, try to get the latest knowledge in this field through research (Participant No. 7).</i></p> <p><i>Teachers who have realized the necessity of environmental education for the future of the country are passionate about this type of education (Participant No. 6).</i></p>
	Intellectual involvement of teachers in environmental education	Constant attention to environmental education Intellectual concern for environmental education	<p><i>Some teachers are always trying to learn different dimensions of environmental education and they value it a lot (Participant No. 8).</i></p> <p><i>A teacher who accepts environmental education as a necessity is always thinking of improving her abilities in this field (Participant No. 7).</i></p>
	Belief involvement towards environmental education	Being a model teacher in the field of environmental education High priority of environmental education for teachers	<p><i>Teachers who have a deep belief in environmental education should act as role models in this field (Participant No. 9).</i></p> <p><i>For some teachers, environmental education is even more important than subjects like math (Participant No. 4).</i></p>

	Teachers' skill engagement towards environmental education	Trying to make environmental education attractive Using new methods in teaching environmental issues Meaningful education of environmental issues	<i>Some teachers try to make environmental education attractive by using methods such as participation and scientific tours (Participant No. 5). A teacher who is motivated to teach the environment tries to relate these teachings to the students' lives so that it is meaningful (participant no. 7).</i>
Indifferent approach	A skeptical look at environmental education	Uncertainty about environmental education Not being optimistic about the results of environmental education	<i>Some teachers in the 21st century still have a skeptical and hesitant view of environmental education (Participant No1). Some of the colleagues I talk to believe that environmental education does not have a very positive result (Participant No. 9).</i>
	Being negligent in the field of environmental education	Failure to give priority to environmental issues in teaching A temporary view environmental education	<i>Many of our teachers consider environmental education as a second-hand thing that should be the last priority of education (Participant No. 11). Some teachers look at environmental education only as a nuisance (Participant No. 6).</i>
	A profit-seeking view of environmental education	A cost-benefit view of environmental education A benefit-based view of environmental education	<i>The cost-benefit view of environmental education is one of the main problems of this type of education. Basically, such a view leads to a severe blow to environmental education (Participant No. 12). Some people think that any education that is provided should have financial benefits. You can't look at environmental education in this way (Participant No. 10).</i>

5. Discussion and Conclusion

Teachers' views towards environmental education was the main concern of the current research. The results of the present study showed that teachers expressed three different attitudes towards environmental education, which were regressive approach, progressive and developmental approach, and indifferent and approach. The way teachers approach environmental education has a significant impact on this type of education. In line with the findings of the current research, Rezaei (2017) believed that the willingness of the society, including teachers to face such programs plays a significant role in its implementation. Without the preparation of stakeholders involved in environmental

education, efforts in this field will remain futile. Brati (2016) also reported that the teacher as the implementer of environmental education in the classroom plays a significant role in the success or failure of these educations. More precisely, a teacher who truly believes in environmental education will undoubtedly make more efforts to implement this type of training. In his research, Shaltari (2020) concluded that some teachers act as an obstacle against this type of education due to their ignorance and lack of knowledge about environmental education. The results of Santoz et al. (2019) indicated that that the cognitive dimension in environmental education is considered more than other dimensions. As it was also mentioned in the present research, the knowledge dimension of environmental education is more prominent than other dimensions. A teacher who cannot inspire the emotional dimension of students to engage in environmental education will undoubtedly face failure in this direction. Besides, Nashida et al. (2019) concluded that some teachers do not have a positive attitude towards environmental education. In other words, this group of teachers believe that subjects such as science and mathematics have more priority than environmental education.

In general, environmental education as the foundation of life in the current century should be given more attention. Even if environmental education programs are prepared at the standard level, neglecting important elements such as teachers in these programs will cause them to become inefficient. The teacher can be considered as the most important factor in the effective implementation of environmental education. Indeed, training the teacher and his positive attitude towards environmental education can guarantee the success of environmental education. In contrast, if teachers do not understand the necessity of such programs and have a superficial and temporary view of environmental education, they undoubtedly will not be actively involved in it, so we cannot expect positive results. Teachers in the process of environmental education are so important that they are even able to cover the shortcomings of other factors including the students and content. A teacher who is enthusiastic about environmental education can undoubtedly make students enthusiastic in this field. In short, it should be noted that without considering the role and the attitude of the teachers, developing the best environmental education programs is almost impossible.

References

- Amini, M., & Mashaalhi, Z. (2022). The neglected place of environmental education in textbooks. *Journal of Educational Sciences of Shahid Chamran University of Ahvaz*, 6(2).34-67.
- Bahrami, M. (2022). Examining and explaining indicators of environmental literacy in curricula School science. *Master's thesis*, Payam Noor University, Faculty of Biological Sciences, Tehran.
- Blatt, E. N. (2023). An investigation of the goals for an environmental science course: teacher and student perspectives. *Environmental Education Research*, 21(5), 710-733.
- Bonnet, M. (2023). Education for sustainable development: sustainability as a frame of mind. *Journal of Philosophy of Education*, 37(4), 675-690.
- Chezan, L. C., & Drasgow, E. (2020). Prelinguistic Milieu Teaching produces acquisition of intentional communication in the natural environment in three preschool children with or at risk for autism spectrum disorder. *Evidence-Based Communication Assessment and Intervention*, 14(4), 228-235.
- Crawford, E. O., Luke & Van Pelt, W. (2021). Children as Solutionaries: Environmental Education as an Opportunity to Take Action. *International Journal of Early Childhood Environmental Education*, 3(1), 54.
- Cuenca-Soto, N., Martínez-Muñoz, L. F., Chiva-Bartoll, O., & Santos-Pastor, M. L. (2023). Environmental sustainability and social justice in Higher Education: A critical (eco) feminist service-learning approach in sports sciences. *Teaching in Higher Education*, 28(5), 1057-1076.
- Ebrahimi, Q., Mughanaki, S. & Abedin, A.. (2018). Skills training methods Environment (case study: children's education). Rooshd of schools.
- Edwards-Jones, A., Waite, S., & Passy, R. (2022). Falling into LINE: school strategies for overcoming challenges associated with learning in natural environments (LINE). *Contemporary Issues in Primary Education*, 313-327. Routledge.
- Erzengin, O. U. & Kete, E. C. (2019). A study on developing an environmental behavior and attitude scale for university students. *Journal of Educational and Instructional Studies in the World*, 3(2), 49-56.
- Genc, M., Genc, T., & Goc, R. P. (2023). Effects of nature-based environmental education on the attitudes of 7th grade students towards the environment and living organisms and affective tendency. *International Research in Geographical and Environmental*, 1-16. 10.1080/10382046.2017.1382211

- Hojjati Sayah, M., & Khodabakhshi Kolai, A. (2015). Effectiveness of environmental group education on the attitude and environmental awareness of female primary school students in Tehran. *Journal Pediatric Nursing*, 4(7).67-98.
- Ismaili Alawijeh, E., Amiri, M. J., & Salehi, I. (2019). Comparing the effectiveness of environmental education using formal and informal education Sixth grade students. *Environmental Education and Sustainable Development Quarterly*, 2(3) 58-49.
- Jafari, S. I., Seyadat, S. A., & Bahadran, N. (2023). Investigating factors affecting environmental education. *New Educational Ideas Quarterly*, 3(2), 60-75.
- Kalantary, A., & Saidipour, K. (2016). Investigating the effect of environmental education on the theory of communication on the level of learning and communication with nature of sixth grade elementary students. *Education Quarterly Environment and Sustainable Development*, 5(10). 48-67.
- Kartel, E. E., & Mesci, G. (2022). Learning through teaching: Teaching the nature of scientific inquiry in online outdoor learning environments. *International Journal of Assessment Tools in Education*, 9, 283-299.
- Lateh, H. & Muniandy, P. (2021). Environmental education (EE): Current situational and the challenges among trainee teachers at teachers training institute in Malaysia. *Procedia Social and Behavioral Sciences*, 2, 1896-1900.
- Lindgren, S., McCleary, M., Gasper, S., Nieves, A., Stengren, K., & Shabana, A. (2023). Practical Research: Outdoor Teaching and Learning in Natural Spaces and Outdoor Classrooms. *Science Scope*, 46(7), 72-77.
- Merritt, E. G., Stern, M. J., Powell, R. B., & Troy Frensey, B. (2022). A systematic literature review to identify evidence-based principles to improve online environmental education. *Environmental Education Research*, 28(5), 674-694.
- Mónus, F. (2022). Environmental education policy of schools and socioeconomic background affect environmental attitudes and pro-environmental behavior of secondary school students. *Environmental Education Research*, 28(2), 169-196.
- Pluhar, Z. F., Piko, B. F., Kovacs, S. & Uzzoli, A. (2019). Air pollution is bad for my health: Hungarian children's knowledge of the role of environment in health and disease. *Health & Place*, 15(1), 239-246.
- Ramazani Qawamabadi, M. H. (2022) Strategic education of environmental protection in Iran: necessities and bottlenecks. *Strategy Quarterly*, 21(3). 345-567.
- Ratner, B. D. (2020). Sustainability as a dialogue of values: challenges to the sociology of development. *Sociological Inquiry*, 74(1), 50–69.
- Retnowati, R., Suharyati, H., Manurung, R. T., Maknun, D., Armariena, D. N., Hasanudin,

- C., & Setyorini, R. (2018). The effect of environmental teaching method and the level of natural intelligence on the environmental view of the students' behavior. *Journal of Physics: Conference Series*, 1114(1), 012104). IOP Publishing.
- Sebastián-López, M., & de Miguel González, R. (2020). Mobile learning for sustainable development and environmental teacher education. *Sustainability*, 12(22), 9757.
- Shahraki, R. (2018). Curriculum planning of environmental education in improving the learning process Students in the opinion of high school teachers of Gonbad Kavus city, master's thesis, Tehran, Payam Noor University, Faculty of Humanities.
- Steele, A. (2018). Beyond contradiction: Exploring the work of secondary science teachers as they embed environmental education in curricula. *International Journal of Environmental & Science Education*, 6(1), 1-22.
- Suave, L. (2022). Currents in environmental education: Mapping a complex and evolving Pedagogical field. *Canadian Journal of Environmental Education*, 10, 11-37.
- Varisli, T. (2019). Evaluating Eighth Grade Students' Environmental Literacy: The Role of Socio-Demographic Variables. *Unpublished Dissertation*, Middle East Technical University.
- Yousuf, A. & Bhutta, S. (2022). Secondary school students' attitude towards environmental issues in Karachi Pakistan. *International Journal of Scientific & Engineering Research*, 3(10): 1–11
- Torbati, S., Tajik Esmaili, S., & Khosravi, N. (2018). Qualitative study of environmental education in schools and its underlying factors. *Journal of Biological Sciences*. 12(45). pp. 77-104.
- van de Wetering, J., Leijten, P., Spitzer, J., & Thomaes, S. (2023). Does environmental education benefit environmental outcomes in children and adolescents? A meta-analysis. *Journal of Environmental Psychology*, 81, 101782.
- Yang, B., Wu, N., Tong, Z., & Sun, Y. (2023). 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.