

Environmental Education and Sustainable Development: A Qualitative Content Analysis of Textbooks in the Schools of Islamabad

by Zulfiqar Ali

Submission date: 16-May-2026 10:11AM (UTC-0700)

Submission ID: 2962705704

File name: paper-environmental_education-edited_final_copy-za-rw.docx (48.97K)

Word count: 5368

Character count: 32692

Environmental Education and Sustainable Development: A Qualitative Content Analysis of Textbooks in the Schools of Islamabad

Zulfiqar Ali²
MPhil Scholar – School of Sociology, Quaid-I-Azam University, Islamabad
Email: zulfiqarali@soc.qau.edu.pk

Kainat Afzal
BS Sociology – School of Sociology, Quaid-I-Azam University, Islamabad.
Email: afzalkainat302@gmail.com

Dr M. Rafique Wassan³
Lecturer, Department of Anthropology and Archaeology, University of Sindh, Jamshoro.
Email: rafique.wassan@usindh.edu.pk

¹³
Abstract: Environmental education (EE) is an important tool in influencing attitudes and practices that are sustainable, but the inclusion of EE in Pakistani primary school curricula is haphazard and often superficial. The results presented in this article are a report on the results of a qualitative content analysis of primary-level textbooks (Grades I-VIII) in government and private schools in Islamabad. In the analysis, it has been found that the common themes are waste management, water conservation, biodiversity, pollution, and recycling, as well as the fact that most content is descriptive rather than participatory. Some of the main obstacles to successful EE have been identified as overcrowded curriculum, insufficient teacher preparation, lack of resources, socio-cultural restrictions, and poor policy coordination. However, there are many opportunities: national policy commitments, the possibility of interdisciplinary curriculum design, the partnership with communities and NGOs, eco-clubs, and technology-mediated learning. The paper argues that to transform EE into practice rather than information, there have to be systemic changes: curriculum realignment, targeted teacher training, linkages of schools with communities, and hands-on learning opportunities that are sensitive to local contexts and cultural values. Recommendations focus on low-cost short-term initiatives, which can be adopted at once by schools, together with longer-term policy reforms. The paper aims to contribute to the sustainable development goals related to environment and climate change issues, policy and planning practice in Pakistan.

Keywords: environmental education, primary curriculum, Pakistan, sustainability, teacher training, sustainable development

1. Introduction

The environmental issues are increasingly known, but it's difficult to include sufficient material about the environment in a very limited curriculum. In addition, the sequence of the courses can be changed as a result of the assessment of cultural and socioeconomic aspects that, directly or indirectly, can result in a lower role for EE. The other challenge is to prepare the material and/or its content appropriately and appropriately for the place(s) and in relation to the general educational approach in the country. All these issues have to be addressed in order to make the young generation of Pakistan environmental friendly and aware. It is always said that habits and values learned in childhood last into adulthood, and, therefore, schools are natural environments to help cultivate environmental responsibility. ⁶Environmental issues, such as serious air and water pollution, deforestation, and disasters related to climate, have become more noticeable and harmful to the livelihoods in Pakistan. The inclusion of quality environmental education at the primary level can thus lead to immediate awareness as well as a lasting behavior change. But in reality, EE in Pakistan tends to be in piecemeal bits: a handful of sentences in a science chapter here, a day of activities there. Textbook information might discuss recycling and saving water, but it rarely gives students a chance to practice or be the leaders of sustainability. It examines how the environmental issues are discussed in the primary textbooks and discusses the practical constraints along with the opportunities of making EE both meaningful and actionable in Pakistani schools.

This is a serious issue that requires discussion and solutions in many countries, because of the level of awareness of EE. Despite knowing that the problem exists and is of great importance, countries have drawn up and adopted the Environmental Problem Index (Klybanivska & Mazai, 2022). ¹⁸The present study aimed to investigate the amount, level, and dissemination of environmental content in curricula in Pakistan. In this case, it has been indicated that concern for the environment and climate change issues has been integrated with the sciences learned in Pakistani schools. The curriculum of Pakistan is linked to EE, but the process and contents of environmental education in Pakistan are not mature yet, and there are fewer inspirational environmental education schemes (Sultan, Ahmed, & Chaudhry, 2020). The best approach to awareness of a problem is to start with children, persuading them of the situation and moving it up from the bottom. In this regard, children should have a source of awareness that can help them achieve these aims and enable them

to understand the 'how', 'when', and 'why' of the process of working to bring ²¹about the change needed in society (Barrable, 2019)

2. Literature Review

2.1 The importance of the early environmental awareness:

Early exposure to the environment is likely to result in later acquisition of pro-environmental attitudes and behavior. The studies demonstrate that knowledge is not enough; children need to have a chance to practice skills and observe sustainable routines to become habitual. In resource-pressured countries such as Pakistan, EE initiated in primary school has both educational and ethical significance, particularly in mobilizing local cultural and religious values in Islam to support conservation (Chawla & Cushing, 2007). The need for improving EE ⁷in the formal education system needs to be emphasized. The writer recounted several anecdotes of teachers assuming responsibility for inculcating a conservation attitude in their students. Most local instructors informing their kids about climate change in their regions have explained their endeavours in this article (Begum, et al., 2021). Global issues such as glacier melting, deforestation, farming, agriculture, water and air pollution, and other significant issues were narrated in the local context that turned out to be enormous world problems. The most important message from the Stories is that Instructors have individually been making a difference in the environment at their own level. Still, it has been deduced that more considerable group activity is needed. The majority of teachers emphasized that having an environmental awareness curriculum ⁷in the formal education system is essential, saying that students would not be in school if they did not have an environmental awareness curriculum. This is why, in schools, where even if not included in the curriculum, many teachers were reported to have made an effort to explain what Climate change is about, has yet again brought the importance of teacher formal training to the fore (Hungerford & Volk, 2019).

At present, little difference has been found among the pupils in primary school according to their environmental awareness ⁹in terms of gender, mother's educational attainment, and father's educational attainment, respectively. In the past, the elementary school students' perceptions and sub-indices about the environment were medium. There was a comparison between the results of

the mother's level of education and the results of environmental attitudes and their sub-sections, and it was found that there is no significant difference in the data. The sub-dimension education posture of the ecological attitudes sub-dimension has been proven to be strongly influenced by the fathers (Usman, 2000).

2.2 The way EE is now dealt with in primary schooling

In much of the national curriculum of many countries around the globe, environmental material is not taught as a special subject but is integrated into ¹²the curriculum across a range of subjects. In Pakistan, the content on EE is often integrated into science classes, which creates a risk of limiting the reach and depth of the content (Mustafa & Gurbuz, 2018). The benefits of cross-curricular, project-based, and experiential learning are demonstrated through international evidence. At present, little difference has been found among the pupils in primary school according to their environmental awareness ³in terms of gender, mother's educational attainment, and father's educational attainment, respectively. In the past, the elementary school students' perceptions and sub-indices about the environment were medium. There was a comparison between the results of the mother's level of education and the results of environmental attitudes and their sub-sections, and it was found that there is no significant difference in the data. The sub-dimension education posture of the ecological attitudes sub-dimension has been proven to be strongly influenced by the fathers (Ardoin & Bowers, 2013).

¹⁹2.3 The importance of EE in formal education to institutions.

The formal integration of EE into the curriculum projects institutional commitment and makes it difficult to leave these environmental issues to specific programs or events. The formal integration of EE into the curriculum communicates institutional commitment and makes it difficult to "leave to the side" EE to other programs or events. However, teacher readiness, adequate resources, and monitoring systems are critical for effective integration (UNESCO, 2017). Research in Pakistan has indicated that teachers fail to possess the scientific content knowledge and pedagogical approaches for EE delivery, which impacts the quality of EE delivery (Shuhana & Norsidah, 2008). In the theory of environmental education, it means that the attitude of the students towards the environment has changed. The youth who will be a part of society in the future should be socialized

to become social citizens, should know what they do in their actions, and should have adequate ideas about the environment and have good attitudes toward living in harmony with nature. It is concluded that among various methods of protecting the environment, the most effective approach is to create environmental awareness in society, especially among the young ones, who are the future leaders. Hence, the environmental awareness and attitudes of the pupils in the two groups did not show any statistically significant difference. As it is suggested to teach theoretical and practical activities and connect with other subjects, raising students' awareness and attitudes to environmental problems is recommended (Sultan, Ahmed, & Chaudhry, 2020).

2.4 Uprising Root Level Solve the problem at the Root Level

The best way to get the word out on a problem is to educate the kids, starting with knowledge about the problem. It assures that the right actions can overturn the ills that society has been encountering. Thus, children require a credible information source to achieve these objectives and to understand how, when, and why change can be realised in society (Barrable, 2019). One of the issues that has been brought up and has caught the interest of many countries in the world is awareness. Understanding the problem topically, the countries have created and carried out EE programmes (Van, 2019). The scope and magnitude of the issues and the level of concern are growing. Living, feeding, moving, consuming, and disposing of waste all affect the environment, and this is a critical environmental problem (Javed, et al., 2020).

2.5 Religion, culture, and the stewardship of the environment:

In Pakistan, values and beliefs have a deep influence on environmental attitudes. EE can be a very effective starting point with the Islamic teachings, which emphasize moderation, care for creation, and avoidance of waste. Developing curricular resources that reflect these values in a thoughtful way can create more resonating and effective messages for students and families to act on when it comes to sustainability. Religion helps to define certain beliefs and perceptions in and among the people, thus impacting how they conduct themselves. With respect to its values, it also has the capacity to inspire and shape behaviour. The values mentioned above and attitudes determine the behaviours of the community and society involved. This Understanding demonstrates that Islam

upholds sustainability, kindness, and the protection of resources. The only ones who will be involved in sustainable processes are religious people with a good heart (Javed, et al., 2020).

The distinction that has been made so far between Islamic values and personal values. Ethics are always a part of their lives, and Islamic ethics, which are ⁴based on the Quran and Hadith, are great. It is quite common in this type of work to discuss the significant role played by religion in the lives of consumers. Values can be potentially used as encouragement and influence behavior in that way. Ideals and perceptions of what is good in people and society are shaped by religions and lead to acts of behaviour. These values and attitudes affect the members' actions in the community and the culture. The reality is that Islam is a religion that promotes ¹sustainable development and extends the use of, and saves, resources. The values of religion have a significant impact on the behaviour, thinking, and acting of an individual. A revived discussion has been about how faith impacts man's behaviour for several decades. This is more essential in countries where most ²²of the population adheres to a specific religion, such as Islam, being the state religion in Pakistan (Begum, et al., 2021).

2.6 Curriculum alignment with sustainable development principles:

Since the 1990s, there have been efforts to incorporate sustainability issues into the curricula of Pakistan through the National Conservation Strategy and the subsequent policy development. But the practice of textbook and teaching methods ⁵in relation to principles of Education for Sustainable Development (ESD), which are interdisciplinarity, participation, and problem-solving, is still not fully accomplished (Kalsoom & Khanam, 2017). The iterative process of curriculum review and the integration of ESD throughout the curriculum is advocated for as the preferred approach and is encouraged internationally over the separate treatment in ESD chapters (Tilbury, 2016). There is ¹¹an interdisciplinary approach to educating pre-service and in-service teachers, highlighting the need to include ¹the three pillars of sustainable development (SD): ²⁴environment, economy, and social relations. The type of conflicts that can emerge as a result of the diverse environmental, economic, and social practices, however, can be incorporated (Vargas, 2000). ¹⁷In 2002, the World Summit for Sustainable Development took place, in which the World Education Forum highlighted factors that determine the overall global socioeconomic and environmental education objectives ²⁶for a sustainable future. Education has a critical role in the area when it realizes the SDGs. The

UN declared the DESD 2004-2015 as a recognition of the importance of education in sustainable development. DESD is a tool for integrating sustainable development into all learning and to influence or change the attitudes and behaviour of individuals and society (UNESCO, 2005).

2.7 Evaluation of Global Development of Environmental Education

Environmental education is 'the process of identifying purposes and meanings and making them aware of acquiring the competence and propensities needed to cultivate a responsible attitude towards the environment and interpersonal relationships of man, his environment, and his civilization. In addition, environmental education implies the formation of an individual's standard of conduct on ecological equity and the undertaking of decision-making exercises (IUCN, 1971). The United Nations (UN) – Stockholm Conference on Human and Environment, 1972, established standards, measures, and encouraged public enlightenment that disseminates to society about the protection and enhancement of health care systems (UNEP, 1972). In 1975, IEEP (International Environmental Education Program) was discussed at the International Workshop on Environmental Education in Belgrade, and was acknowledged as the official international program for environmental education. This time, the Belgrade Charter was handed over to voice concerns on goals, objectives, ideas, and environmental principles (UNESCO, 1975). In 1977, at the Follow-up Intergovernmental Conference on Environmental Education in Tbilisi, USSR, the EE in formal and non-formal education systems and at all age stages was given significant emphasis, resulting in a greater strengthening of the EE process in formal and non-formal education systems. It had a special section on Our Common. In this way, it set the scene for the second great high point, the United Nations Conference on Environment and Development. It is true because environmental education has been called in the UNCED as the principal product of Agenda 21, Chapter 36 Education, public awareness, and training. Involving EE in primary education, therefore, has informative value for other countries about the way EE is being incorporated into the curricula of the ASEAN countries. Likewise, in the South Asia Cooperative Environment Program (SACEP), they emphasized that the start of environmental education programmes is necessary in their South Asia Development Agenda (SACEP, 2014) beyond the present 2015.

3. Theoretical framework

The meaning of environmental education is best understood as being a process that "covers information and skills, values and action. The focus of this study is based on the Environmental Education Theory (EET), which has been used heavily for understanding environmental learning. and which sees environmental learning as more than just the delivery of facts or information, it is about developing an ecological sensibility, the acquisition of practical skills, and the facilitation of participation for students that lasts well beyond the classroom (Jensen & Schnack, 2017). EET focuses on three interlinked components: Becoming ecologically literate (understanding systems), Learning by doing (direct experience), and Stewardship (responsible action within one's community). The elements indicate that knowledge needs to be paired with opportunities for students to learn how to take care of their environment (Orr, 2019).

Another strand relevant to this study is the action-competence approach in EE: EE learners acquire skills of problem identification, problem analysis, and application of solutions, which are suitable to the problem context. This promotes agency, rather than passivity. In Pakistan, where religious and cultural values are integral to life, the theoretical framework should also be sensitive to and built on the religious and cultural values to make the environmental messages more relatable and actionable to children and families. To put it simply, the theory presented here conceptualizes EE as a process of knowledge transfer, practice creation, and linking learning with community and cultural values: the classroom should be teaching relevant knowledge, and provide opportunities for practicing it and for linking it with the community and cultural values (Begum, et al., 2021).

4. Materials and methods

A qualitative content analysis approach was applied in this research to analyze the environmental content of the primary school textbooks (I–VIII) of government and private schools of Islamabad. The textbooks were purposefully chosen as the ones used in schools and presumed to be most likely to have environmental themes. The unit of analysis comprised text segments (expository text passages, exercises, illustrations, and activities) that were related to environmental topics. Data was gathered by several readings and manual coding. A first codebook based on EET and UNESCO's ESD framework has been created and includes the following covered categories: waste, water, biodiversity, pollution, climate, and action suggestions. Codes were developed in an iterative fashion during analysis. To promote trustworthiness, the coding was reviewed in stages

with ambiguous statements re-coded, post-coding after discussion and reference to the codebook. Ethical issues involved included the use of textbooks as public property and refraining from claiming any attributional claims of individual teachers and schools.

5. Results and Discussion

5.1 Waste Management Practices

Educating children on waste management is an integral part of environmental sustainability, and instilling these habits can shape their future attitudes towards civic responsibility. Cleanliness is emphasized in the textbooks used in government schools, where students are encouraged not to litter and to maintain cleanliness around them. There is also an introduction to sorting waste materials, although this is only theoretical. There are very few programs where students can apply the lessons they are learning, such as a recycling program or segregation bins in the classroom. (Mustafa & Gurbuz, 2018) pointed out that EE is mostly limited to science subjects in Pakistan and is not applied in other fields of learning. (UNESCO, 2017) also explained that practical involvement is crucial in developing sustainable behaviours. The current method allows for awareness, but is not as effective at influencing behaviour. The potential of the content to impact attitude and daily practice is not realised if practical waste management activities are not embedded within the school.

5.2 Water Conservation

Water is the biggest and most important resource of Pakistan, which is under threat, and students in early classes should educate them about water conservation. Teaching water conservation through religious beliefs is also incorporated into the educational curriculum of schools in Pakistan, where children are taught to turn off the taps and prevent water wastage, emphasizing moral responsibility. These small activities are seldom seen as having any relation to wider national issues like groundwater depletion, drought, and climate-related issues. Islamic traditions are a concern of (Usman, 2000) and (Begum, et al., 2021). which encourages a balanced approach to resource use, on a culturally agreeable basis for the teaching of conservation. Whereas, (Shuhana & Norsidah, 2008) showed that without adequate teacher training, these values remain difficult to

translate into classroom practice. By showing water conservation marginally, the curriculum deprived the systemic nature of Pakistan's water crisis. To make lessons productive, they must be linked to environmental change, precautions, and water preservation that children can take an interest in.

5.3 Deforestation and Its Consequences

Deforestation is a major concern because forests balance ecosystems, stabilize soil, and sustain biodiversity. Pakistani textbooks raise the dangers of cutting trees, including soil infertility and biodiversity destruction. Therefore, students are sometimes told to plant trees, which is done eventually once a year, not sustain project based. (Barrable, 2019) highlighted that practical methods, such as progressive involvement with nature, are important to fostering empathy toward the environment. (Sultan, Ahmed, & Chaudhry, 2020) also argued that sustainability education should be included within ongoing school programs rather than framed as event-based. The unavailability of structured reforestation activities means children can identify deforestation as a disliked activity but remain passive observers. Practical, long-term tree-care initiatives would make the learning more productive.

5.4 Air Pollution and Burning Waste

Air pollution is one of Pakistan's most concerned challenge in urban areas, and children can be targeted easily. Textbooks describe pollution mainly in terms of garbage, smoke, and industrial waste emissions, connecting these to different diseases and environmental damage. While topics hardly explore detailed reasons, such as transportation systems or the use of energy. If policies are not implemented, environmental education is reduced to a mere content and not an empowering one, as explained in the book "Absence of policies" by (Shuhana & Norsidah, 2008). (Mustafa & Gurbuz, 2018) also pointed out that there are no effective teaching instruments for addressing environmental challenges. The curriculum restricts students' agency as pollution is presented as a problem with no "solution. Students should be taught how to keep their surroundings clean so that focus will be shifted to action, not just on passive learning.

5.5 Climate Change and Global Warming

The words related to climate change (greenhouse gas, global warming) diagram, which are seldom introduced in diagrams. The topics are extremely contentious and frequently use challenging vocabulary, which might not be accessible to younger learners, and are not strictly confined to Pakistan's contexts, such as melting glaciers, climate uncertainty, or intense flooding. The (UNESCO, 2017) report emphasizes the importance of drawing in the local contexts to the global issues as a way to enhance engagement of students, and (Barrable, 2019) underscores the significance of making science abstract more relevant to students' personal lives in order to deepen learning. If climate change is presented just as a scientific problem, it may isolate students from the urgency of the problem. Educating children in the context of vulnerabilities can foster responsibility and drive them to understand that they are part of the solution in Pakistan.

5.6 Environmental Literacy and Student Awareness

Environmental literacy constitutes not merely knowledge but also values, skills, and behavior. The textbook analysis indicated that the private schools tend to promote reflection activities and student discussion compared to the government schools, where most of the content is restricted to textbook reading. This restricts the possibilities of good participation and increases the literacy gap between various socio-economic groups. (Chawla & Cushing, 2007) noted that upgradation is the initial step towards sustainable behavior. Yet it is explored that Pakistani students' environmental attitudes remain normal because their exposure is limited. Environmental education may contribute to the strengthening of inequality unless there are conscious efforts to bridge this divide. Interactive strategies in government schools should be extended in the effort to create an equal opportunity to sustainable learning.

5.7 Recycling and Resource Conservation

Recycling is often introduced as a civic responsibility in the textbooks of private schools, and focused on the aspect of waste reduction. Nevertheless, the lessons end with the instruction and rarely provide the students with the practical actions like composting, reuse activities, or collective collections. (Silva, Gomes, Carvalho, & Geraldles, 2021) argued that textbooks worldwide often put interest in theoretical rather than practical recycling education. In Pakistan, (Sultan, Ahmed, & Chaudhry, 2020) also noted that applied learning dominates sustainability lessons. This

“knowledge without practice” would make recycling a mere concept. Incorporation of recycling into school life would make children consider conservation a way of life and not a quote.

5.8 Biodiversity and Wildlife Protection

Most textbooks include biodiversity and wildlife, usually as a list of species or a description of an ecosystem. Although the lessons encourage the appreciation of the natural wealth of Pakistan, the lessons are not interactive in nature as they do not include biodiversity surveys, nature walks, or conservation projects in the local areas. (Gökçe, 2007) explained that direct experiences with the environment significantly improve awareness, while (Barrable, 2019) focused on the fact that practical knowledge fosters empathy toward nature. Biodiversity reduced to memorization means that students will not perceive conservation as something that is within reach, as opposed to something far away. Possibilities to interact with the local surroundings may turn the awareness to stewardship.

5.9 Role of NGOs and Community Engagement

Textbooks occasionally mention NGOs and community organizations as actors in environmental conservation. Yet these references are general, and pathways for involving students in NGO-led initiatives are not provided. This disconnects what happens in the classroom from what's happening in the community. Partnerships between schools and communities are crucial to incorporating sustainability into school life, as (Saleem, 2020) emphasized, and community participation is identified as one of (UNESCO, 2017) principles of environmental education. Structured partnerships are pivotal for ensuring schools have access to enriching, practical, real-world learning opportunities that they might otherwise miss. There could be better cooperation with NGOs, which would make education more action-oriented.

5.10 Sustainable Development Practices in Schools

Schools are also emphasized as the environments where sustainability practices, including such events as cleanliness drives or tree-planting days, can be advertised. Such activities imply the realization of environmental responsibility, yet they tend to be handled as symbolic gestures as opposed to a change in the system. (Kalsoom & Khanam, 2017) explained that sustainable

education should be planted continuously, and UNESCO (2017) commends a whole-school approach where sustainability pervades daily routines. A concept of sustainability introduced with a certain event becomes less powerful in the long run. Such practices as waste segregation, eco-clubs, or green school policies might transform the symbolic gestures into the culture that is lived.

6. Challenges and Opportunities

Systemic issues and practical opportunities can be traced in the integration of environmental education in Pakistani schools. The jam-packed curriculum is one of the largest challenges, as it focuses on the core courses and has very minimal room to include environmental content. This is a reflection of the worry of (UNESCO, 2017) that inflexible curricula exclude sustainability education. The problem is aggravated by the lack of trained teachers; a lot of teachers do not have knowledge about the environment and do not possess efficient pedagogical competencies, which (Shuhana & Norsidah, 2008) also noticed. Socio-cultural attitudes, such as low environmental awareness and practices that tend to make people less accepting of sustainability programs and scarcity of resources, especially in government schools, which lack infrastructure and teaching aids, are other barriers (Sultan, Ahmed, & Chaudhry, 2020). Moreover, the issue of policy fragmentation and financial constraints does not allow schools to implement any project other than the textbook lessons.

In spite of these limitations, there are opportunities. The policy commitments and alignment of Pakistan with the Sustainable Development Goals are one of the frames through which reform can be created. Schools can be linked to local knowledge and capacity through community involvement and collaborations with non-governmental organizations, and thus, programs would be more meaningful. Technological advances provide another opportunity for innovative methods, including virtual field trips and online resources, which can even be offered to resource-deficient schools. More opportunities to integrate EE into the curriculum can be developed through interdisciplinary learning and teacher training programs, and eco-clubs can provide students with leadership opportunities in the field of sustainability practices. The general impression is that improvement needs to be systemic: breaking the structural inhibition and also taking advantage of the favorable policies, community engagement, and cheap and practical programs that can be expanded to schools.

7. Conclusion

According to this research, EE is in existence, but is taught in the primary school curriculum in an inconsistent way. Theoretical material on issues such as waste, water, biodiversity, pollution, and recycling is covered, although this is in a largely abstract way, and there are only a few opportunities for the student to engage with the material. This restricts the ability of EE to develop a meaningful behavior change.

The practice should not be confined to raising awareness; it should be extended to EE. These include integrating EE as a subject, teacher training in practical sessions, anchoring low-cost sustainability initiatives in schools, and forming school-community and school-NGO partnerships. The education system can address and contribute to the environmental problems of the future better when problems of the world such as climate change are put in the context of Pakistan and when schools are viewed as an environment of sustainable action as opposed to action for awareness.

References

- Ardoine, Noelle, & Bowers, Alison. (2013). Environmental Education And K-12 Student Outcomes: A Review and Analysis of Research. *The Journal of Environmental Education*, 44(4), 257-279. doi:<https://doi.org/10.1080/00958964.2017.1366155>
- Barrable, Alexia. (2019). Refocusing environmental education in the early years: A brief introduction to pedagogy for connection. *Education Sciences*, 9(1), 61. doi:<https://doi.org/10.3390/educsci9010061>
- Begum, Abida, Jingwei, Liu, Marwat, Ullah, Khan, Imran, Khan, Salim, Han, Heesup, & Ariza-Montes, Antonio. (2021). Evaluating the Impact of Environmental Education on Ecologically Friendly Behaviour of University Students in Pakistan: The Roles of Environmental Responsibility and Islamic Values” Sustainability. *Sustainability*, 2021, 13, 10188. doi:<https://doi.org/10.3390/su13181018>
- Chawla, Louise, & Cushing-Flanders, Debra. (2007). Education for Strategic Environmental Behaviour. *Environmental Education Research*, 437–452. doi:[10.1080/13504620701581539](https://doi.org/10.1080/13504620701581539)
- Gökçe, Nazlı. (2007). Erdoğan Kaya Sayım Aktay Muhammet Özden Elementary Students’ Attitudes Towards Environment DegiPark Akademik. (6), 452-468.
- Hungerford, Hungerford, & Volk, L. Trudi. (2019). Changing Learner Behavior Through Environmental Education. *Journal of Environmental Education*(21(3), 8-21).
- Javed, Asma, Akhtar, Nadia, Iqbal, Muhammad, Javed, Kanwar, Naseer, Muhammad, Hafiz, Amir, Sarah, & Khan, Irfan, Muhammad. (2020). Infusion of Environmental Education in Secondary School Science Curricula in Pakistan. *Elementary Education Online*, 3059-3069. doi:[10.17051/ilkonline.2020.03.735472](https://doi.org/10.17051/ilkonline.2020.03.735472)
- Jensen, Bruun, Bjørnne, & Schnack, Karsten. (2017). The Action Competence Approach in Environmental Education. *Environmental Education Research*, 12 (3-4), 471-486. doi:<https://doi.org/10.1080/13504620600943053>
- Kalsoom, Qudsia, & Khan, Afifa. (2017). Inquiry Into Sustainability Issues by Preservice Teachers: A Pedagogy to Enhance Sustainability Consciousness. *Journal of Cleaner Production*, 1301-1311. doi:<https://doi.org/10.1016/j.jclepro.2017.07.047>
- Klybanivska, Tetiana, & Mazai, Lada. (2022). Environmental Education and The Formation of Ecological Consciousness in The Structure of Professional Training: Theoretical Aspect” Personality and Environmental Issues. Vol. 1(2) 2022 . doi:[10.31652/2786-6033-20](https://doi.org/10.31652/2786-6033-20)
- Mustafa, Derman, & Gurbuz, Hasan. (2018). Environmental education in the science curriculum in Different countries: Turkey, Australia, Singapore, Ireland, and Canada. *Journal of Education in Science, Environment, and Health*, 4(2). doi:[10.21891/jeseh.409495](https://doi.org/10.21891/jeseh.409495)

- OrrW.David. (2019). Ecological literacy: Education and the transition to a postmodern world. doi:<https://doi.org/10.1017/S0889189300004537>
- SaleemZ. (2020). Environmental Sustainability and Education: A Leadership Perspective.
- ShamsuddinShuhana, & UjangNorsidah. (2008). Making Places: The Role Of Attachment In Creating The Sense Of Place For Traditional Streets In Malaysia. *Habitat International*(32), 399–409. doi:10.1016/j.habitatint.2008.01.004
- SilvaMirandaGraça, GomesJ.Paulo, CarvalhoHelena, & GeralesVera. (2021). Sustainable Development in Small and Medium Enterprises: The Role of Entrepreneurial Orientation in Supply Chain Management. *Business Strategy and the Environment*, 30(8), 3804-38. doi: <https://doi.org/10.1002/bse.2841>
- SultanSohaib, AhmedShehzad, & ChaudhryImranMuhammad. (2020). Awareness Regarding Environmental Education: A Qualitative Study Suggesting Practical Steps in Education Leading to a Green Pakistan. *Global Social Sciences Review (GSSR)*, Vol. V, No. I, 510–518. doi:: 10.31652/2786-6033-2022-1(2)-5-8
- Tilbury Daniella. (2016). Environmental education for sustainability: Defining the new focus of environmental education in the 1990s. *Environmental Education Research*, 1(2), 195-212. doi:<https://doi.org/10.1080/1350462950010206>
- UNEP. (1972). Stockholm Declaration on the Human Environment. Nairobi: United Nations Environment Programme. UNEP. doi:10.2307/3455181
- UNESCO. (1975). Belgrade Charter: A Global Framework for Environmental Education. Paris: United Nations Educational, Scientific, and Cultural Organization. doi:10.2307/1221164
- UNESCO. (2005). Guidelines and Recommendations for Reorienting Teacher Education to Address Sustainability.
- UNESCO. (2017). Guidelines and recommendations for reorienting teacher education to address sustainability. Paris: UNESCO.
- UsmanA. (2000). Environmental Ethics and the Preservation of Nature: An Islamic Perspective. *Journal of Islamic Studies*(11(2)), 189-204.
- VanGaryfallou. (2019). Global Environmental Awareness: A Comparative Analysis of Environmental Education Programs 1 DOI:10.1080/00958964.2019.154279. *Journal of Environmental Education*, 21(3), 75-194.
- VargasClaudia. (2000). Environmental management and sustainable development in Latin America. *Environment, Development and Sustainability*. Springer, 2(3-4), 309–316. doi:<https://doi.org/10.1023/A:1011464001234>

Environmental Education and Sustainable Development: A Qualitative Content Analysis of Textbooks in the Schools of Islamabad

ORIGINALITY REPORT

6%

SIMILARITY INDEX

4%

INTERNET SOURCES

5%

PUBLICATIONS

1%

STUDENT PAPERS

PRIMARY SOURCES

- | | | |
|---|---|-----|
| 1 | Robert B. Stevenson, Michael Brody, Justin Dillon, Arjen E.J. Wals. "International Handbook of Research on Environmental Education", Routledge, 2013
Publication | 1% |
| 2 | www.pjsel.jehanf.com
Internet Source | 1% |
| 3 | www.academia.edu
Internet Source | <1% |
| 4 | Mohamad Saifudin Mohamad Saleh, Miao Huang, Shaidatul Akma Adi Kasuma. "Multidimensional Climate Change Communication in Asia - Culture, Community, and Digital Innovation", Routledge, 2026
Publication | <1% |
| 5 | dokumen.pub
Internet Source | <1% |
| 6 | www.ijrah.com
Internet Source | <1% |
| 7 | McDonald, Michelle. "I Want to Do So Much More, but I Just Do Not Know What to Do: Intermediate Teachers' Interactions With the Outdoors in Winter", Trent University (Canada), 2023
Publication | <1% |
| 8 | Submitted to Kozep-europai Egyetem
Student Paper | |

<1 %

9 jrap.neduet.edu.pk
Internet Source

<1 %

10 Helen Kopnina, Eleanor Shoreman-Ouimet.
"Environmental Anthropology - Future
Directions", Routledge, 2013
Publication

<1 %

11 www.tandfonline.com
Internet Source

<1 %

12 Maslamany, Kavitha. "Year Five Pupils' Mental
Model of Environment.", University of Malaya
(Malaysia)
Publication

<1 %

13 ilkogretim-online.org
Internet Source

<1 %

14 Ransome, Emma. "Define Today, Transform
Tomorrow : An Exploration of the
Understanding and Practical Embodiments of
Sustainability in Higher Educational
Institutions in the UK", Lancaster University
(United Kingdom), 2025
Publication

<1 %

15 www.coursehero.com
Internet Source

<1 %

16 Ayesha Nousheen, Sajid Ali Yousuf Zai,
Muhammad Waseem, Shafqat Ali Khan.
"Education for sustainable development
(ESD): Effects of sustainability education on
pre-service teachers' attitude towards
sustainable development (SD)", Journal of
Cleaner Production, 2020
Publication

<1 %

17 Tatlilioglu, Eda. "Analysis of Science Curriculum and Textbooks in Terms of Sustainable Development Goals: A Case Study.", Middle East Technical University (Turkey), 2024
Publication

<1 %

18 Tuncay-Yüksel, Büsra. "Environmental Moral Reasoning Patterns of Pre-Service Science Teachers and Their Relationships to Epistemological Beliefs and Values.", Middle East Technical University (Turkey), 2024
Publication

<1 %

19 core.ac.uk
Internet Source

<1 %

20 era.ed.ac.uk
Internet Source

<1 %

21 tehqeeqat.org
Internet Source

<1 %

22 www.mdpi.com
Internet Source

<1 %

23 Mbokazi, Msawenkosi Sandile. "An Evaluation of the Role of Environmental Education in Promoting Sustainable Living in Secondary Schools, Umkhanyakude District, Kwazulu-Natal", University of South Africa (South Africa)
Publication

<1 %

24 Narinder Kakar, Vesselin Popovski, Nicolas A. Robinson. "Fulfilling the Sustainable Development Goals - On a Quest for a Sustainable World", Routledge, 2021
Publication

<1 %

25 Alex C. Michalos, Heather Creech, Christina McDonald, P. Maurine Hatch Kahlke.

<1 %

"Knowledge, Attitudes and Behaviours.
Concerning Education for Sustainable
Development: Two Exploratory Studies",
Social Indicators Research, 2010

Publication

26

Julie Davis, Sue Elliott. "Research in Early
Childhood Education for Sustainability -
International perspectives and provocations",
Routledge, 2014

Publication

<1%

Exclude quotes On

Exclude matches Off

Exclude bibliography On