

ENHANCING SUSTAINABILITY EDUCATION IN PAKISTAN: ANALYSIS OF PAKISTAN STUDIES TEXTBOOK GRADE XII

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ABSTRACT

The study is conducted to analyze the sustainability education provided in the grade XII Pakistan Studies textbook published by the Punjab Textbook Board, Lahore. A purposive sample is taken, and the content of the textbook is qualitatively analyzed through NVivo 12 software. The findings signify that the grade XII Pakistan Studies textbook covers various dimensions of sustainability including social, cultural, or value-added dimensions. The textbook shows excellent coverage of Islamic values and principles and how they shape and influence individual and societal behavior. The book contains ample material addressing how culture, norms, and traditions fit in a sustainable society. Almost the whole book focuses on different teachings and principles of Islam that should be considered on individual and societal levels for peace and harmony in society. The textbook also offers profound material on environmental degradation and natural resources however, the depth of the contents does not satisfy the reader's need for how the environment becomes a victim, especially in Pakistan. The book lacks in addressing sustainable means of economic development as well as institutions and governance means vital and centrally covered in Sustainability. The study calls the attention of policymakers and curriculum developers for a more integrated approach towards sustainability education where each sustainability dimension should be covered in detail. Education content should be based on principles and philosophy of sustainability to encourage students to understand sustainable development holistically.

Keywords: Pakistan studies, sustainability education, textbook analysis, sustainability framework

INTRODUCTION

The integration of sustainability education into modern educational systems has globally emerged as a crucial component aiming to equip students with the knowledge, skills, and values required to address the complex challenges of sustainable development (Demssie et al., 2020). Among the pressing issues that the world faces such as climate change, biodiversity loss, social inequality, and economic disparities, the significance of education in cultivating sustainable practices and mindsets has been increasingly realized.

Pakistan Studies is a compulsory subject taught at the secondary and higher secondary levels in Pakistan at every school regardless of the school system. This subject aims to deliver facts and general knowledge of the country's civilization and past. Its

basic intention is to create an understanding of personal identity as the main difference between the social collective and awareness of the current necessities of Pakistan.

The purpose of this study was to determine the extent to which the concepts and principles of sustainability are addressed in the Pakistan Studies textbook for grade XII, published by the Punjab Curriculum and Textbook Board, Lahore. The research employed a sustainability framework developed by Tavanti (2010), which comprises six dimensions of sustainability: environmental, social, economic, institutional, cultural, and values.

The potential significance of this study is that it would contribute to the ongoing discourse on sustainability education in Pakistan offering some

fruitful insight for curriculum developers, policymakers, and educators. By critically analyzing the textbook of Pakistan Studies for 12th grade, the research aims to identify the gaps in the coverage of sustainability concepts and propose solutions through curriculum reform and pedagogical approaches. Accordingly, the findings of this research would contribute to transform being suggested as a comprehensive and integrated approach to sustainability education in Pakistan ensuring alignment with the national goals and international commitments of the country. These findings will provide some useful insight for curriculum developers, policymakers, and educators seeking ways to introduce sustainability-related topics into their curriculums.

Literature Review

Sustainability has become a dominant concept in recent times as the world copes with the intricate issues surrounding sustainable development. Sustainability incorporates the need to harmonize economic, social, and environmental imperatives to ensure the well-being of present and future generations (UN, 2015). It is important to note that education plays a crucial role in advancing sustainability as it equips all people with the skills, competencies values, and knowledge required to undertake to achieve sustainable development (UNESCO, 2017).

Sustainability is a key objective towards integration into education as it has been emphasized by several international frameworks and initiatives. An example of this was in 2015 the United Nations launched the 2030 Agenda for Sustainable Development which included Goal 4 of quality education which is to ensure inclusive and equitable quality education and promote lifelong learning which you can see the importance of responding to issues of sustainability whereas the Global Action Program (GAP) on Education for Sustainable Development (ESD) by UNESCO which also identifies the vital role of quality education, and outlines its importance as well as approving the integration of ESD in all levels and forms of education (UNESCO, 2017).

Textbooks are crucial in many educational settings since they serve as primary sources of information and learning materials (UNESCO, 2017). However, the way content is represented and presented in these textbooks can impact students'

understanding and involvement with sustainability concepts (Kopnina, 2014). It is, therefore, imperative to evaluate textbooks through the lens of sustainability to assess the efficacy of sustainability education and identify areas that need improvement (Kopnina, 2014).

When considering all sustainable education in Pakistan, these last few years have shown the least recognition. That being said, the importance of education for sustainable development and environmental education being introduced in the curriculum was recognized (NEP, 2009). However, research has figured that there are several obstacles to successful implementation. These include, but are not limited to, inadequate teacher preparation and training, limited resources, and insufficient curriculum content.

The framework suggested by Tavanti (2010) that we can use as a comprehensive lens to analyze the materials in the body of the study is the sustainability framework. The sustainability framework consists of six dimensions: the environmental dimension, which deals with the conservation and responsible use of natural resources; the social dimension, which emphasizes social justice, equity, and access to basic services; and the economic dimension, which is the financial viability of sustainable development and the need to balance economic growth with social and environmental considerations. The institutional dimension includes the role of governance and policy in advancing sustainability, the cultural dimension encompasses cultural diversity and indigenous knowledge, and the values dimension is rooted in the ethical and spiritual foundations of sustainability.

Several articles explore how sustainability education is integrated into education. For example, Filho et al. (2018) undertake a comparative analysis of the implementation of sustainability education in higher education institutions across seven countries. They find that interest in this kind of education is on the rise, but there are several barriers to implementation, including lack of institutional support, adequate funding, and faculty resistance to change. Laurie et al. (2016) in their research on primary and secondary schools find that several schools are delivering education on sustainability either as a discrete subject or through a cross-curricular approach. However, the extent to which education is being delivered and its efficacy is highly variable. The authors argue that more research into

the impact of sustainability education on student learning and behaviour is necessary. Gough (2016) examines how sustainability education is being integrated into programs for training teachers. Drawing on examples from Australia, Canada, and the United Kingdom, the author suggests that the teaching environment plays a main role in preparing future teachers to deliver sustainability education effectively. However, they suggest that many teacher education programs are not consistently preparing teachers to deliver education for sustainability. The authors also argue for more research into the preparation methods for teachers in sustainability education. Redman and Larson (2011) attempt to map and critique the characteristics and outcomes of the most effective sustainability teaching since 1990. The authors argue that the most effective sustainability teaching involves experiential learning both inside and outside of the classroom.

Several studies have been carried out to assess sustainability education in Pakistan, its catalysts, and the way forward to ensure a sustainable future through education. For instance, Kalsoom and Khanam (2017) explored eco-sustainability education among pre-service teachers and the role of teacher education in sustainability education where they concluded that students get to know about sustainability; however, this education does not provide them with the issues of sustainability, its root causes, and consequences. They also suggested that teacher education should include more community-engaged content, action research, and critical reflection on sustainability education and sustainability itself. Similarly, Malik et al. (2019) studied the sustainability education incorporated in the curriculum of technology education in Pakistan and they concluded that the curriculum of technology education does not contain for fit-for-purpose sustainability topic. Similarly, two studies were conducted on sustainability education in higher education institutions in Pakistan (Habib et al., 2021; Hinduja et al., 2023) and one study was conducted on teacher education for sustainability by Jumani and Abbasi (2015). The findings of another study revealed that B.Ed and ADE program students expressed that this aspect of sustainability was not included adequately. Khushik and Diemer (2020) conducted research on education and sustainability, and how SDG4 contributes to change the representations of developing issues. Similarly, Nousheen et al. (2020) explored the impact of

sustainable education on the tendency of pre-service teachers towards sustainable development. Additionally, the hindrances to sustainability education in the local context of Pakistan were explored by Bukhari et al. (2022) who identified several hindrances to sustainability education including poor governance, uncertainty of going green, and lack of resources. This research collectively demonstrates the need for a comprehensive and integrated approach to sustainability education focusing on the teaching force, curriculum, and institutional policy. Moreover, there have been conducted recent studies regarding sustainability in education for English textbooks for grade IX and X (Jamil, Anwar, et al., 2024; Jamil, Nosheen, et al., 2024). The both papers were conducted keeping in view Tavanti (2010) framework for sustainability. In the English textbook for grade IX, there was found limited and lacked integration of different dimensions of sustainability. Economic, social, cultural, and values dimensions were discussed partially while institutional and environmental dimensions were about non-existent. For the English textbook X, there was significant focus on cultural, social, and moral values regarding sustainable development. On the other, hand there was less focus on economic, environmental, and institutional aspects.

Objectives of the Study:

- To analyze the extent to which the Pakistan Studies textbook for grade XII integrates the sustainability concept.
- To identify gaps and areas for improvement in the coverage of sustainability concepts in the Pakistan Studies textbook and propose recommendations for enhancing sustainability.

Research Methodology

The approach employed in this study was a qualitative content analysis. This approach is chosen because it fits the study's aim, which is to identify the latent meanings and themes in the textual data (Hsieh & Shannon, 2005). In choosing the sample of the textbook studied, purposive sampling was applied. Qualitative content analysis was used for data analysis as the most suitable method as it systematically examines large text data to understand

the meanings (Kyngäs, 2020), and this method is also used to analyze textbooks (Mayring, 2014). The Pakistan Studies textbook for grade 12 was chosen purposefully as it is a subject that is compulsory, and aims to develop a national identity, reinforce social cohesion, and refine responsible citizenship. The coding, sorting, and categorizing of the textual data were assisted through NVivo 12 software, which is a computer program system for constructing and executing qualitative analysis on the textual fields of data. The sustainability framework proposed by Tavanti (2010) was applied to analyze the data. The sustainability framework provides an umbrella to examine sustainability over six dimensions, which are environmental, social, economic, institutional, cultural, and values. Initially, a coding scheme was developed by extracting the themes and indicators that represent the sustainability of each dimension of the sustainability framework. Then the coding scheme was developed so that text that corresponds to each theme falls into each node to represent the facet of sustainability. This process improved the reliability and validity of the theme development by involving an iterative process of coding and recoding (Hsieh & Shannon, 2005).

Findings of the Study

The following aspects are discussed in detail regarding the findings of the study:

Environmental Dimension:

The textbook does not extensively cover the environmental dimension of sustainability. There is a lack of discussion and no specific examples on biodiversity conservation, atmospheric balance, soil productivity, and responsible utilization of natural resources. The textbook primarily focuses on the historical, political, and social aspects of Pakistan, with limited emphasis on environmental sustainability. The absence of such content highlights the need for incorporating environmental sustainability concepts into the textbook.

Social Dimension:

The textbook addresses some aspects of social sustainability, such as the promotion of social justice, equality, and brotherhood in the context of Islamic principles (pages 3-4). It also discusses the fundamental rights of citizens guaranteed in the constitution of Pakistan, including equality of status, opportunity, and protection of minorities. For example, on page 8, the textbook states, "*Islam promotes the spirit of social welfare in human*

beings. Serving the people has a status of a high rank worship." It also mentions the importance of justice and equality, as evident from the following quote on page 4: "*Islam is torch bearer of equality among human beings. Islam denies all distinctions including colour and race, language and culture, and wealth and poverty.*" However, the textbook does not provide an in-depth analysis of poverty alleviation and access to social services for marginalized sectors of society.

Furthermore, the textbook discusses the fundamental rights of citizens guaranteed in the Constitution of Pakistan. On page 31, it states, "*The Constitution of Pakistan 1973 gives all the basic rights to the citizens. Further restriction has been imposed that the government cannot make any law to deprive the fundamental rights.*" It then lists various rights, including equality of status and opportunity (page 32).

Economic Dimension:

The economic dimension of sustainability is briefly mentioned in the context of an Islamic welfare state. On page 6, the textbook states, "*Islamic welfare state does not allow the wealth of the nation to be concentrated in few hands but ensures the circulation of wealth so that all the members of society may be benefited from it.*" It also mentions the need for collective progress through "*industrial, agricultural, mineral and commercial development plans*" (page 6). However, the textbook does not provide a detailed discussion on sustainable economic development or the balance between economic growth and environmental conservation.

Institutional Dimension:

The textbook discusses the structure and functioning of the federal and provincial governments in Pakistan, which relates to the institutional dimension of sustainability. On pages 36-48, it outlines the functions of the federation and provinces, the differences between the central and provincial governments, and the administrative structures of Azad Jammu & Kashmir and Gilgit-Baltistan. It also mentions the role of the council of Islamic ideology in ensuring that laws follow Islamic teachings (page 33). However, the textbook does not provide an in-depth analysis of institutional capacity, willingness, and cooperation for integrating sustainability into policy mechanisms.

Cultural Dimension:

The textbook emphasizes the importance of Islamic culture and values in the context of Pakistan's

ideology and society. On page 1, it states, "Islamic society is unique as compared to other societies. It is based on divine principles and ideas derived from the Holy Quran and the Sunnah of Hazrat Muhammad ﷺ." It also discusses the role of education in preserving and transmitting national culture and ideology, as evident from the following quote on page 61: "Every society has been desirous to preserve its ideology of life and culture and to transmit it from generation to generation."

Values Dimension:

The textbook highlights the importance of Islamic values and principles in shaping individual and societal behavior. On pages 3-5, it discusses values such as justice, equality, brotherhood, and tolerance, as exemplified by the following quote:

The Holy Qur'an says:

ترجمہ: "اگر آپ فیصلہ فرمائیں تو ان کے درمیان انصاف کے ساتھ فیصلہ فرما دیجیے بے شک اللہ انصاف کرنے والوں کو پسند فرماتا ہے"

"If you decide, then decide between them with justice. Indeed, Allah loves those who do justice." (page 4). It also discusses the role of education in inculcating moral and ethical values in students (page 61). The text does not do a good job of connecting the values it lists with the overall idea of sustainability and what effect these values may have on a society's ability to promote social, economic, and environmental sustainability. It lists the values but fails to expound on how these values can be applied to help across the spectrum. So, therefore, how these values can fit that framework remains a bit of a mystery.

Conclusion

The textbook is good in addressing the social, cultural, and values dimensions of sustainability, especially in the sense that it pinpoints Islamic principles and how they influenced the type of conduct that an individual or a society could exhibit. The book is good at selling the values that need to exist for sustainable societies to be realized such as justice, equality, brotherhood, and tolerance. The textbook is in connection with the social dimension of sustainability in that social welfare, serving the people, and creating a sense of community are very necessary.

The textbook seems to have comprehensive information on environmental sustainability however it does not cover all areas of this dimension such as

biodiversity conservation and responsible utilization of natural resources or the implications of human activities on our environment. Also, the economic dimension of sustainability does not seem to be significantly covered in the book, only including minimal information on sustainable economic activities as well as how to achieve a balance between economic growth and environmental conservation. Furthermore, the institutional dimension of sustainability seems to be limited in coverage.

This research asserts the need for a comprehensive and integrated approach to sustainability education in Pakistan. It is expected that to make sustainability education more effective it is to deal with sustainability in a way that takes all the sustainability dimensions into account at all levels of sustainability education. Curriculum developers should address environmental sustainability, the role of institutions, and sustainable economic practices in Pakistan. The textbook content should be revisited, and case studies should be included while providing practical examples to demonstrate the interconnectedness of these dimensions and this will ultimately vary the educational policy and curriculum development in Pakistan.

Discussion

The Pakistan Studies textbook for grade XII has been analyzed for its integration of sustainability concepts utilizing the sustainability framework by Tavanti (2010). The analysis has revealed that the integration of sustainability concepts in the given textbook has both its strengths and weaknesses on the grounds of the different dimensions of sustainability. In the given textbook however much of the social, cultural, and values dimensions of sustainability are covered extensively, stressing the Islamic principles and how they have shaped the behavior of an individual and society. The findings also have laid out the fact that the environmental and economic dimensions of sustainability have not been tackled at a stretch. Also, the given textbook has largely overlooked the dimension of institutional sustainability.

Social Sustainability in the textbook is one of the most striking strengths. It shows the main ingredients of justice, equality, and brotherhood in the Islamic concept. It emphasizes the significance of social welfare, serving the people, and creating a feeling of community. Additionally, the textbook

also tackles the fundamental rights of the citizens indicated in the constitution of Pakistan including the equality of status and opportunity, protection of minorities, and access to education. All these principles fall under the social dimensions of sustainability because these are constantly the focus of social justice, equity, and access to basic services (Tavanti, 2010).

The textbook gives evidence of the cultural and values dimensions of sustainability. It emphasizes and highlights the major role played by Islamic culture and values in shaping Pakistan's ideology and society. It also emphasizes the importance of education in the preservation and transmission of national culture and ideology in Pakistan. Further, the textbook advocates the promotion of values such as justice, equality, brotherhood, and tolerance that are necessary for the construction and nurturing of sustainable societies. In doing so the textbook takes into account the cultural diversity and the ethical-spiritual dimension of sustainability (Tavanti, 2010).

In the textbook, there are covered all aspects related to sustainable development, but environmental sustainability is not discussed in a detailed way. There are little or no details on biodiversity conservation, responsible usage of natural resources, and the effects of human activities on the environment hence the area is not well understood. Environmental sustainability deals with the conservation of natural resources and their responsible usage (Tavanti, 2010). A lack of in-depth information about environmental issues in the textbook may not enable a student to comprehend the ecological challenges that Pakistan, the country operates in, and the entire world is facing.

The economic aspect of sustainability is not altogether present in the textbook. The textbooks do briefly touch on equitable wealth distribution and collective progress; and it is achieved through industrial, agricultural, and commercial socioeconomic development, but nothing in depth about sustainable economic development or the importance of balancing economic growth with environmental preservation. Economic sustainability is evaluating the monetary feasibility of sustainable development, and the importance of balancing economic growth with social and environmental aspects (Tavanti, 2010). If the textbook does not discuss anything on sustainable economic practices, then a student will not be able to critically analyze

the economic challenges and opportunities of sustainable development.

Similarly, the textbook did not sufficiently cover the institutional dimensions of sustainability, which is about the role of governance and policy in enhancing sustainability (Tavanti, 2010). On the other hand, the textbook covered the structure and the functioning of the federal and provincial governments of Pakistan. What the textbook did not extensively cover is the discussions about the institutional capacity, willingness, and cooperation in integrating sustainability into policy mechanisms. Effective governance and policy frameworks are extremely important to implement practices for sustainability and to achieve sustainable development goals (UN, 2015). Therefore, because of the limited coverage, the textbook may not be able to make clear to the students the role of government and policy in promoting sustainability.

Sustainability education should not be interwoven in just the curriculum of Pakistan Studies, but rather across various subjects and educational levels to ensure a holistic understanding of sustainable development. To make this happen, curriculum developers, subject experts, and educators must collaborate and come up with chances to embed sustainability concepts into all subjects.

Equipping teachers with the necessary resources, pedagogical approaches, and support to effectively teach sustainability concepts can be done. Teachers need to know how to teach the children what sustainability is and what it can be used for in their everyday lives teachers are very important because they teach the students and are the ones who will help them understand what sustainability is about and what it can be used for. By giving the teachers, the knowledge of what sustainability is what it can be used for, and how with different resources, pedagogical approaches, and support and ideas or new ways to teach their students what sustainability is.

Further research on sustainability education in Pakistan is necessary as indicated by the findings of this study. The current focal point of the Grade XII Pakistan Studies textbook could be expanded to include the integration of sustainability principles in a variety of subjects and educational levels. Furthermore, by making cross-comparisons of the content in textbooks related to sustainability in different regions or educational frameworks within

Pakistan a more holistic picture could be developed of the state of sustainability education ultimately to better inform efforts to enhance sustainability education in the country.

Implications for educational policy in Pakistan, the following insights could be generalized. Policymakers should prioritize sustainability education and allocate funds for curriculum development, teacher training, and learning materials that emphasize sustainable practices. Moreover, cooperation among educational institutions, governmental agencies, and non-governmental organizations could be crucial in promoting sustainability education across the country.

Recommendations

The following recommendations are given based on the findings and the conclusion of the study.

1. The textbook needs revision in terms of covering sustainability concepts more comprehensively.
2. Case studies, practical examples, and activities that show the interconnection among the different dimensions of sustainability and the relevance of these dimensions to the Pakistan context should be included in the textbook.
3. Sustainability education should be embedded in the syllabus starting from middle and high school levels and continuing at least up to undergraduate and postgraduate levels.
4. The collaboration of curriculum developers, subject experts, and educators is important to identify opportunities to integrate sustainability concepts in the respective discipline subjects.
5. Teacher training and professional development should be prioritized to enhance the capacity of educators by focusing on both the content and the pedagogy

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