



Sustainability Education in English Textbook Grade VIII Based On SNC (2022)

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Abstract

The primary objective of the study was to analyze the depiction of sustainability in the English textbook of grade eight based on Single National Curriculum (SNC), 2022. The study employed the Sustainability Framework of Marco Tavanti (2010) and qualitative content analysis through NVivo 12 with purposive sampling of the textbook. The findings reveal that sustainability is not the central theme of the textbook content, however, various dimensions of environmental, social, cultural, and values sustainability are being promoted through lessons, narratives, and activities. It was revealed that the environmental dimension is promoted through responsible use of resources by tree plantation, conservation of wild animals and birds, and responsible use of water and electricity. The social dimension is reflected through empathy, kindness, and respect for all professions. The economic dimension is indirectly reflected through the promotion of education, and the facilitation of agriculture to improve productivity. The cultural dimension is promoted through the cultural diversity and cultural heritage of Pakistan. Values-based dimension of sustainability at school is primarily based on moral values, spirituality, and personal development. There is no explicit attention to the institutional one, but responsible citizens are being promoted, which is a component of the institutional dimension. Even though sustainability is not the central theme of the textbook, it contributes towards providing a holistic and comprehensive understanding of sustainable development to the students.

Keywords: Sustainability, Environmental Education, Social Values, Cultural Diversity, English Textbook Analysis



Introduction

The concept of sustainable development has gained paramount importance in recent decades, with increasing recognition of the need to balance economic growth with environmental preservation and social equity. It intends to teach young people the skills, expertise, and knowledge necessary to engage in pressing social, environmental, and economic challenges of the time (Amin et al., 2023). According to UNESCO (2017), education for sustainable development empowers students to make informed decisions and take responsible actions for environmental integrity, economic viability, and a just society, for present and future generations, while respecting cultural diversity. ESD is transdisciplinary and transformative education, which focuses on the syllabus, assessments, teaching, learning methodology, and learning environment (Ahmad et al., 2023).

Education plays a key role in promoting sustainable development by shaping the knowledge, values, and attitudes of future generations. As stated by UNESCO (2017), education is a necessary tool for achieving sustainability. Educational curricula and textbooks serve as critical vehicles for transmitting knowledge and fostering the necessary skills and mindsets to address sustainability challenges. Consequently, there is a growing emphasis on integrating sustainability principles into educational materials across various disciplines. Education for sustainable development is described as encouraging the alteration of values, behaviour, and means to meet presently foreseen & unsuspected environmental and societal complications (UNESCO, 2017). It fosters the ability to discriminate and make informed decisions, an awareness of sustainable development, a sense of justice, equity, ethical responsibility, critical knowledge of the concept of sustainable development, competence to predict alternative futures, capacity to work cooperatively with others, skills to participate in the decision-making processes of empowerment and positive change. It is well-known that the role of education in shaping attitudes, behaviors, and worldviews of students, thus, becoming central to their actions, behavior, and decision-making in the future (Ortega-Sánchez et al., 2020). In this linking, textbooks are widely used educational tools that reflect the content of the curriculum, serving as a primary source of information, thus playing a key role in the students' knowledge acquisition; among other roles in them as it relates towards sustainability (Silva et al., 2021). They are one of the major means by which students benefit from the teaching and learning experiences by providing knowledge, information, illustrations, and even exercises in most cases.



The Single National Curriculum (SNC) 2022 is a step taken for the first time in the history of Pakistan that aims at unifying the curriculum in public, private, and madrassa schools. It mainly focuses on the areas of national integration, the Islamic way of teaching and learning, and inculcating global competitiveness needed to be taught all over Pakistan. For the successful operation of the Single National Curriculum 2022, the curriculum drafting committee involves all stakeholders including education experts, subject specialists, the inclusion of local representation from all federating units/regions, and relevant international experts (Government of Pakistan, 2021).

English is an international language and is a compulsory subject taught in all the schools of Pakistan. The textbook is the most effective material for analysis because it is a reflective document that shows what is taught, how it is taught, and how it is achieved. It plays a key role in shaping students' acknowledgement of the world and understanding of global issues related to sustainability. Therefore, the textbook of English for Grade 8 based on the Single National Curriculum 2022 is being analyzed as it represents one of the most significant resources for assisting the analysis of the portrayal of sustainability dimensions in the context of Pakistan. This study aims to investigate the representation of dimensions of sustainability that have been recognized by Tavanti (2010). sustainability framework. The six dimensions of sustainability are environmental, social, economic, institutional, cultural, and values-based. This framework is commonly used in the studies of sustainability in higher education, teacher education, and corporate sustainability reporting.

The research will provide insights into the extent to which the sustainability dimension is included in the educational materials used in Grade-8 textbooks and which dimension of sustainability gets more emphasis in the textbook in the context of Pakistan, where sustainable development is critical to address the current or future aspect of the stress of the environment, society, and economy. The findings of this study will have great implications for curriculum development, textbook publication, and teacher's responsibilities in Pakistan. This study will show the areas where there are a lot of strengths and which areas need to be patched up. It is expected that the study will help policymakers and curriculum developers to see to what extent sustainability is included in the curriculum books, the particular area that needs to be improved, and to identify the areas related to Sustainability that can be connected with other subjects. The



study will make a significant contribution to the study of the Education for Sustainability (ESD) and how textbooks are forming student`s ideas and beliefs.

Objectives of the Study

- To examine the extent to which the English textbook for Grade 8 incorporates the various dimensions of sustainability.
- To identify the strengths and gaps in the representation of sustainability dimensions within the textbook content.

Literature Review

Many frameworks have been proposed which integrate to form a system of sustainable development. Tavanti (2010) framework consists of six dimensions: environmental, social, economic, institutional, cultural, and values-based, which gives a holistic view recognizing the complex way in which these dimensions are related and, therefore, need to be addressed together to guarantee a long-term sustainable development. Education has a fundamental role in fostering sustainable development influencing the knowledge, values, and behaviours of future generations. The United Nations Decade of Education for Sustainable Development (DESD, 2005-2014) was a global initiative to promote the implementation of ESD in all educational systems, defining ESD as a process to empower learners to assume responsible actions to face the challenges of sustainability (UNESCO, 2017).

Different studies have explored the presence of ESD in educational curricula and educational material throughout different educational levels and disciplines. Silva et al. (2021) have conducted a systematic review and detected the existence of several studies related to integrating sustainability into educational textbooks, across diverse levels and areas but mainly focusing on the environmental dimension, addressing contributions to climate change and pollution, leaving behind social and economic sustainability themes, almost in all the cases. The significance of interdisciplinary approaches, learning through experience developing problem-solving skills, and critical thinking, as well as fostering the cognitive, affective, and behavioural domains concerning sustainability issues, again has been confirmed through the research (Lozano et al., 2013). Textbooks play a crucial role within the context of Education for Sustainable Development (ESD) for several reasons.



There have been numerous studies investigating how far sustainability themes are considered in the textbooks of different school subjects and across grade levels. Siraj-Blatchford et al. (2010) probed how environmental education has been addressed in early childhood education textbooks in the UK and found that there was no comprehensive and explicit coverage of environmental matters, thus the researchers argued that sustainability themes need to be incorporated more deliberately. Moreover, Zygmunt (2016) showed that sustainability is present to a greater or lesser extent in English language textbooks in Poland. The main environmental character of this sustainability provision disregards crucial social and economic dimensions. Therefore, Zygmunt (2016) recommended that all the major areas associated with ELT materials are covered concerning sustainability.

Different research on sustainable development has been conducted in different regions around the globe. For example, Bandh et al. (2021) carried out a multi-dimensional study, and global climate change was one of the dimensions. Likewise, Tahtahoglu and Kulac (2019) studied education for sustainable development as one of the major tools in the Turkish Context but they noticed that environmental activities in general are lacking around the globe as one dimension of sustainable development issues. In the US, Bromley et al. (2011) conducted a report on the continuity of sustainability issues in social studies textbooks. They found that sustainability issues are covered harmonically but not as an overall concept in terms of all topics as different modules. Similarly, Nkwetisama (2011) conducted a study on awareness rising of increased environmental issues through English language Textbooks but she discovered that these issues are statistically significant but not predominantly contextual. Therefore, sustainability should also be explored in English language textbooks in the context of developing countries like that of Pakistan.

The National Curriculum 2006 envisages that sustainability needs to be diffused into subjects across the curriculum, including English language education (Ministry of Education, 2006). Very few research studies have been found in the context of sustainability integration in English language education. Khalil et al. (2023) studied the application of sustainable development in the syllabus of BS English and mentioned a review of the existing syllabus to incorporate sustainable development and 21st-century skills. Several studies have looked at the condition of sustainability training in Pakistan and studied the catalysts and solutions for inculcating



sustainable growth through education in general in a country specifically Pakistan. There have been conducted two recent studies by Jamil, Anwar, et al. (2024) and Jamil, Nosheen, et al. (2024) about the integration of sustainability education in English textbooks for grades IX and X keeping in view Tavanti's framework for sustainability. The English textbook for grade IX includes social, environmental, institutional, cultural, and value-based sustainability through different units. On the other hand, in the English grade X textbook, there is a significant focus on cultural, social, and moral values of sustainability with a minor focus on economic, environmental, climate change, and institutional frameworks.

Recent research has been conducted to analyze Pakistan studies textbook grade XII regarding dimensions of sustainability (Jamil, Yousaf, et al., 2024). Social, cultural, and value dimensions were explored to be addressed through different units. Economic and institutional dimensions of sustainability need to be addressed in the textbook. Hinduja et al. (2023) studied sustainability in higher education institutions in Pakistan systematically. Kalsoom and Khanam (2017) studied sustainable development in Pakistan. They declassified the pre-service teacher's consciousness regarding sustainability and tried to find out the role of teacher education in sustainability education in Pakistan. They found out that our educational doctrines can make a student aware of sustainability but not that much identify with the root causes and residual consequences of the issue. They further concluded that teacher education should encompass more community-engaged content, action research content, and critical reflection regarding the platform of sustainability education and sustainability itself. Another study by Malik et al. (2019) investigated students' sustainability awareness with curriculum regarding technology education in the Pakistani context. According to the findings, the technological curriculum did not cover the relevant topics of sustainability. Two studies regarding sustainability in higher educational institutions in Pakistan were conducted (Habib et al., 2021; Hinduja et al., 2023). Another study was conducted in the Pakistani context about teacher education for sustainability (Jumani & Abbasi, 2015). The participants of the B.Ed and ADE programs were of the view that this aspect was not addressed in both programs. Another study was conducted by Khushik and Diemer (2020) regarding "Education and sustainability, how SDG4 contributes to change the representations of developing issues? The case study of Pakistan". Similarly, another research explored the effect of sustainable education on pre-service teachers' attitudes towards sustainable



development (Nousheen et al., 2020). Barriers to sustainability were explored in the Pakistani context in a study (Bukhari et al., 2022).

The results of the study found poor governance, uncertainty, and lack of resources as the main barriers to sustainability. Moreover, a recent study has been conducted in Pakistani context for Pakistan Studies grade XII with findings with the presence of social, cultural and value-based sustainability (Jamil, Yousaf, et al., 2024). To explore sustainability in English textbooks for grades IX and X based on the Tavanti framework, two different studies have been conducted in the Pakistani context (Jamil, Anwar, et al., 2024; Jamil, Nosheen, et al., 2024). According to the findings, social, environmental, institutional, cultural, and value-based sustainability are explored in different units of English Textbook grade IX. On the other hand, there is an emphasis on social, cultural, and moral values of sustainability with little emphasis on environmental, economic, and institutional indicators.

Research Methodology

This study adopted a qualitative content analysis approach to analyze the textbook in light of the proposed sustainability framework, suggested by Tavanti (2010) comprising six dimensions of sustainable development. For textbook selection, a purposive sampling technique was adopted by selecting sections and lines related to six sustainable development dimensions. This sampling technique is used to keep in view the study purpose (Creswell & Creswell, 2017).

For content analysis of the data, coding was performed by using and facilitated by using NVivo 12, a computerized assisted qualitative data analysis software (CAQDAS. It helps to identify patterns, themes and relationships in data while not being burdened by its volume (Zamawe, 2015). Qualitative content analysis was the most suitable method that was used in the current study as it analyzes the text systematically (Kynge, 2020).

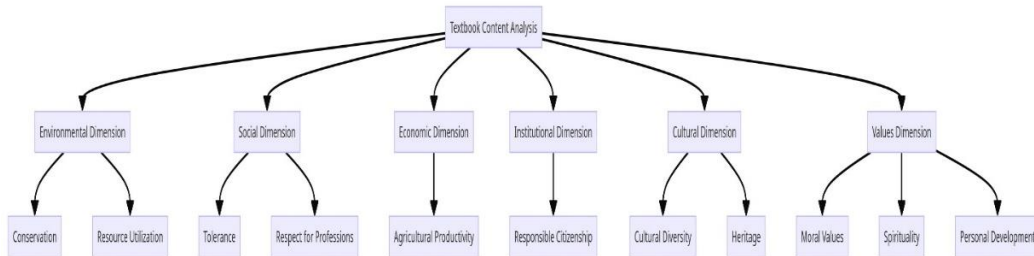
This method is used to analyze textbooks (Mayring, 2014). The nodes of the text were analyzed and re-analyzed in terms of their relevance to the research objectives and the theoretical framework, by considering the research objectives, instructions of the framework, insights from the textual data records, how the areas were represented were interpreted and analyzed keeping in view the framework.

Findings of the study

The following figure describes the findings of the study:

Figure 1

Findings of the study



Further details regarding each aspect are presented as under:

Environmental Dimension

The book promotes environmental consciousness and conservation through these texts. For example, in the poem "The Earth Speaks" (pages 68-70) the author personifies the Earth and pulls at the environmental awareness strings of the child by saying. *"Take my four gifts and use each one Use each wisely, kindly and well"* (page 70). This text focuses on the significance of sustaining the natural environment, utilizing resources responsibly, and being concerned for the Earth's gifts like different seasons and natural beauty.

Social Dimension

The textbook for grade VIII promotes social values like tolerance, harmony, and respect for all professions, which contribute to a just and equitable society. The story "A Great Virtue" (Pages 10-15) teaches the values of kindness, empathy, and helping others in need, which contribute to a harmonious society. It encourages students to be considerate of others, as seen in this quote: *"The old man set an example of a great virtue to be followed."* (Page 15). In the same way, the unit "Dignity of Labour" (Pages 96-104) emphasizes respecting all professions, especially manual labour. It states: *"There is no job or profession which is inferior, and we must respect professionals of all fields."* (Page 99). It promotes social equity and appreciation for diverse roles in society. These lessons inculcate social sustainability by fostering a sense of community, empathy, and equal treatment of all members of society.



Economic Dimension

While there is no direct discussion of economic sustainability, the textbook indirectly touches upon this dimension by emphasizing the importance of education, hard work, and responsible utilization of resources. For instance, the unit "Dignity of Labour" (Pages 96-104) highlights the importance of education and facilitation for farmers to improve agricultural productivity and contribute to the country's economic progress. For example, on Page 99, it mentions: *"Though we have modern equipment and best fertilizers now, but less steps are taken to educate the farmers."*

Institutional Dimension

The textbook does not address institutional capacity or the integration of sustainability into mainstream policy but does advocate for values and attitudes that can contribute to the building and understanding of sustainable institutions. An example of this is the poem "Give to Your Country" (Pages 106-113) which encourages one to be responsible and patriotic which can both be helpful in the creation of sustainable institutions. It is described by, *"Under the name of citizenship / Give your country her due."* (Page 108)

Cultural Dimension

A specific example where cultural diversity and heritage are celebrated through the textbook would be in "Give to Your Country" Pages (106-113). It showcases various parts of Pakistani culture including the national dress, language, and historical landmarks. Therefore, by showing the different aspects of the culture, the textbook is trying to show its readers that cultural sustainability is important because there are many different cultural identities within a country that deserve to be preserved.

Values Dimension

The textbook focuses on moral values, spirituality, and personal development. To quote from the textbook pages from the textbook like "Tolerance of the Rasoolullah (ﷺ)" (Pages 1-9) and "Hazrat Umar (رضي الله عنه)" (Pages 48-56) express values like compassion, justice, integrity should be the base for building a sustainable society. *"We should follow the teachings of our Rasool (ﷺ). We learn from his life how much tolerance He (ﷺ) practised"* (Page 4)

Discussion and Analysis

The contents of the textbook were enriched with text to seek awareness and conservation of the



environment. The emphasis of the text is that, preserving the natural environment, responsibly using the resources, and caring for our environment's gifts. Another finding according to the environmental dimension of sustainability, the text allocates risks of deforestation, and tree planting for human good health. This result is consistent with previous studies conducted on testing the status of representation of environmental themes in textbooks in different subjects and grades (Siraj-Blatchford et al., 2010). Hence, including packages explicitly advice for environmental conservation and responsible resource utilization may contribute to developing environmental literacy and sustainable attitudes among students which contributes to Compatible behaviour in Education for Sustainable Development (UNESCO, 2017).

The analysis revealed that the textbook promotes values such as tolerance, harmony, and respect for all professions- addressing the social dimension of sustainability (Tavanti, 2010). The text in the units concentrated on the importance of kindness, compassion, and treating everyone in a just manner regardless of their occupation or social class, promoting the society part of sustainability. Such lessons encouraged social sustainability by instilling the idea of community, justice, and respect for the diversity of roles within society in the students. These findings supported Tavanti's (2010) sustainability framework that emphasized social justice, equitable distribution of resources, and accessibility of essential amenities to all members of society through the society dimension. The textbook contributed to shaping the attitudes and behaviours of students toward the creation of an inclusive and more socially sustainable society by instilling values such as tolerance, empathy, and respect for the diversity of professions.

When coming to conversation about economic sustainability there is no direct reference in the textbook except in chapter 4 -Dignity of Labor. It shows about education and facilitation therefore, they can be able to do improve their agriculture field, and also profit will improve the economy. Page 99 states that *"Though we have modern equipment and best fertilizers now, but less steps are taken to educate the farmers."* Therefore, it has been shown the what the situation will be the relationship in the economy has been shown. The economic sustainability section centres upon the financially viable dimensions of the development while keeping up the mutual combination with the social and environmental dimensions.

Another dimension of sustainability stated in the reading is not directly stated in the reading. However, this dimension was shown in the poem "Give to Your Country" (Pages 106-113) in the



textbook. This is when it shows citizens to be responsible and patriotic. Promoting responsible citizenship today provides the foundation for building sustainable institutions in the future. For example, it says, “*Under the name of citizenship / Give your country her due*” (page 108) which means show what you can do for your country by being a citizen. It is believed that this is an indirect reference to the authors of this textbook to perform responsible roles around you for your country. By showing how to be responsible you are moulding yourself to become a leader to your peers and will become a responsible leader that is needed within society. By becoming responsible, you will become a responsible citizen, it is only a matter of time. As for the institutional dimension of sustainability in the wider world today, it is a very complex picture.

The inclusion in the textbook of the unit “Give to Your Country” (Pages 106-107) emphasizes the multiple aspects of Pakistani culture. Such as national languages, dress, sports, and national historical sights, show that the textbook celebrates the cultural diversity and heritage of Pakistan. It promotes an appreciation of cultural sustainability and the preservation of diverse cultural identities. This aligns with the cultural aspect of Tavanti's Sustainability Framework for Education for Sustainable Development (2010). Cultural elements should be included in the textbook as this will give the students a sense of pride and respect for Pakistan’s rich cultural heritage.

The textbook emphasizes moral values, religion, and personal development which is in line with one of the values of sustainability. For example, in the units ‘Tolerance of the Rasoolullah(ﷺ) (Pages 1-9) and Hazrat Umar (رضي الله عنه)’ (Pages 48-56) the following values are promoted which include: kindness, justice, and integrity based on the teachings of Islam. On page 4 is mentioned, “*We should follow the teachings of our Rasool (ﷺ). We learn from his life how much tolerance he (ﷺ) practised*”. This shows an integration of moral and spiritual values adhering to Tavanti’s Sustainability framework (2010) values dimension that, upholds that individual and community values and behaviour play an important role in the achievement of sustainability. Therefore, the textbook in terms of values is trying to inculcate positive values and personal development which are the important attitudes and behaviours of sustainable development as values-based sustainability is linked to long-term sustainability development goals (UNESCO, 2017).



The findings of this study may have several implications for curriculum development, textbook design, and teacher training in Pakistan. The textbook incorporates various aspects of environmental, social, cultural, and values-based sustainability however there is a need for more explicit and comprehensive coverage of Economic and Institutional dimensions to provide a holistic understanding of Sustainable Development to the students. The curriculum developers, textbook authors, and designers may consider the integration of more explicit discussions and activities related to economic sustainability concepts such as responsible consumption, circular economy, and sustainable business practice in the textbook. Consistency and coherence in the representation of sustainability dimensions across different subjects and grade levels are needed. Effective implementation of sustainability education may require teacher training to play a crucial role. Professional development programs should be designed to train teachers so that they have knowledge, skills, and pedagogical approaches to effectively convey sustainability concepts and cultivate critical thinking and problem-solving abilities among the students. It may also be fruitful to involve stakeholders like parents, community members, and relevant sector representatives (e.g. environmental organizations, sustainable businesses) in the process of education to enrich students' understanding of the Sustainability challenges and opportunities in their respective local contexts.

Conclusion and Recommendation

The textbook provides good exposure to environmental awareness, conservation, and judicious use of natural resources to the students. For instance, the inclusion of texts like “The Earth Speaks” and “Trees Plantation” highlights the importance of resource use, conservation of natural habitats, and the urge to preserve it and use it in a sustainable manner which aligns with the environmental dimension of sustainability. Similarly, it also fits with the social dimension of sustainability. The units of the textbook are found to instil such values e.g. tolerance, harmony, empathy diverse professions in the societies. Thus, different units' headings like “A great Virtue”, and “Dignity of Labour” mould the attitude of the students for creating an inclusive and socially sustainable society.

The textbook contained the unit “Dignity of Labour” which instils students with the knowledge, understanding, values, and behaviours required for a more sustainable future, not so directly addressing economic sustainability, will indirectly addressing it by supporting the concept of



economic feasibility. For instance, the poem mentioned emphasizes providing education or facilitating the people for efficient agricultural productivity which directly correlates with the economic feasibility aspect of sustainability. While the units stepping in all the vital four dimensions of sustainability that are infused into the curriculum remain silent about the two dimensions at least one dimension of it should be there such as the institutional dimension. In the case of the current textbook, no text found in general that governs the mechanisms that integrate sustainability into mainstream policy mechanisms and institutional capacity: and the cultural dimension here in the textbook shows patriotism, and promotes critical debates on the preservation of Pakistan's cultural heritage and diversity.

Whereas in the textbook, patriotic feelings, values, and recognition of cultural diversity are promoted among the students, which reveals patriotism and cultural focus for Pakistani students that align with the cultural dimension of sustainability. Moreover, the textbook consistently underpins attitudes, behaviours, and values among the students to lead a life within the Earth's largest physical boundaries. So, it properly fits within the values dimensions of sustainability overall.

The following are recommendations of the study.

- There is a need for more explicit discussions and activities on the economic dimension of sustainability such as responsible consumption, circular economy, and sustainable business practices, to ensure that students get a wholesome grasp of this dimension.
- The institutional dimension of sustainability which examines the integration of sustainability principles into mainstream policy mechanisms and institutional capacity should be addressed more explicitly in the contents of textbooks.
- There is a need to ensure that there is consistency and coherence in the representation of sustainability dimensions across different subjects and grade levels.
- Teacher training programs should be designed in such a way that they equip educators with the right knowledge and skills and help them understand the best pedagogical approaches that would make it possible for them to effectively convey these concepts to students, and help students to engage in critical thinking and problem solving about sustainable development issues.
- The involvement of stakeholders such as parents, community members, environmental organizations, sustainable businesses, etc., in the educational process would help students



to understand the key sustainability challenges within their local context and possible solutions.



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