



RESEARCH PAPER

Exploring Environmental Representation in PCTB's English Language Textbook (Book I) of Grade XI

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ABSTRACT

Language has the potential to construct and reconstruct ideologies among masses through formal education. Formal education is also used to teach about the natural phenomena in the form of "Sustainable Eco-Conscious Environment." The present study uses Multimodal Analysis, i.e. textual and visual analysis of Book I of Grade XI English Language Textbook to figure out the portrayal of environmental content. The study aims to explore the eco-representation in PCTB's Book I of Grade XI. The study opts for qualitative analysis to unveil the environmental content within the selected PCTB English textbook. The findings highlight a strong lack of eco-sensitive content, particularly in the visual domain of Book I of Grade XI. The study is significant as it will help learners to think outside the anthropocentric box. In addition, the study strongly recommends to the curriculum designers the inculcation of eco-sensitive content in PCTB textbooks at all levels.

KEYWORDS: Eco-Sensitivity, Green Consciousness, Multimodal Analysis, Eco-Criticism

Introduction

Language is a powerful weapon in today's society. It has a silent, yet the loudest influence on the lives of human beings. It has the potential to play a major role in constructing and reconstructing the already perceived knowledge of humans about the surrounding world and its related phenomena. It has an active role in building the notions about the outside world. Thus, language is very helpful in understanding the social realities or questioning the stigmatised stereotypical notions that are already prevalent in today's society (Akcesme, 2013).

By language, it does not only mean written or spoken language. Written and spoken languages are well-known sources to impart information, build ideologies, and deconstruct stereotypes. However, it is not only limited to these mediums. The other means, like semiotics (visual representation through images), are also understood as another means to construct ideologies (Zahoor, 2021).

Being a child, a human's first interaction is with the spoken mode of language. Later on, they familiarise themselves with the written mode of language. Thus, the written language is mostly used in formal education, especially in the textbooks of the learners. Textbooks are considered the best and the most easily available source for learners to interact with. They are the best source in bringing social transformation. Brown (1991) states that language teaching must address the social issues that are slowly but continuously impacting our lives. Language teaching is best done with the help of

textbooks. Thus textbooks have a significant role in raising awareness about the phenomenon happening in today's society. Textbooks have thus been the best tool in ESL classrooms, though language plays multiple roles. It is not just bound to impart information or build confidence among learners, but it is also used to shape the thought process of human beings.

Primary-level textbooks are always the foundational textbooks that help in developing ideologies. At this level of education, learners are an easy target to grab. They can easily be manipulated as they are naïve. These textbooks then inculcate the knowledge that remains with them till last if not challenged or ended by logical reasoning. At the Secondary level, the level of textbooks gets advanced. Moreover, learners at this level are more conscious or vigilant about the content they come across. That is why, at this level of education, learners' ideologies about certain everyday phenomena may survive, or they may change as learners question and do not blindly believe the things they are being taught. Hence, it is the best stage to teach or make learners aware of the issues of the natural surroundings. The United Nations of Educational, Scientific and Cultural Organisations (UNESCO) in the 'Belgrade Charter' (1976) states that the natural surroundings' issues must be taught to learners at all levels of their education (UNESCO-UNEP, 1976).

Pakistan is a country enriched with natural reservoirs. God has blessed the country with ample natural beauty. As per the 2023 reports published online, Pakistan is seen on a red list whose natural reservoirs are continually degrading. The growing concern in today's world is the deterioration of the natural serenity of the environment. Modern people are more involved in harmful environmental activities like deforestation, polluting the environment, and so many. In the name of industrialisation, people are inclined towards the environmental crisis due to the lack of education or environmental awareness (Nahdhiyah, 2022). Ecological education has now become a necessity in order to maintain a sustainable natural environment (Zahoor, 2021). Bhalla (2012) figures out that human beings should have the basic ecological knowledge to prevent any ecological crisis. Potter (2003) believes that humans should have ample information about the environment and its significance even for the existence of living beings. Humans should know how non-humans and humans are equal in a sustainable environment. They should know that the environment can only be sustained with 'Green Consciousness'. It is a term associated with making an eco-friendly environment in which there is no anthropocentrism. Humans and non-humans are treated equally. Ecological education can be best taught through formal textbooks.

Punjab is the largest province in Pakistan by population. With more population, it also has a stable educational curriculum. The Ministry of Education has repeatedly stated that Punjab's educational curriculum keeps passing through several review processes. That is why the Punjab Curriculum and Textbook Board's (PCTB's) textbooks claim to provide a quality education with a particular aim to highlight real-world scenarios.

The present study aims to highlight the environmental content within the PCTB's English Language Textbook of Grade XI. Though there are two books in Grade XI, the present study has a major concern with Book I content. In this study, the qualitative approach is used to distinguish the environmental content within Book I. Moreover, the study has also focused on multimodal analysis of the content. That means the textual and visual content of Book I will be focused upon. The portrayal of the human-nature relationship is the main concern of the study. That is why the present study will figure out how the natural environment is projected in relation to human beings in Book I.

Literature Review

Eco-criticism has always been a highly debated field, especially in today's world, it has gained much popularity. People are advancing with the advancement of the technology. As time passes by, they modify their activities and alter their natural surroundings. Humans are more involved in activities that favour humans above other inanimate objects of the natural surroundings. In addition, they are also damaging the natural calmness and beauty of the natural surroundings. That is why there is a dire need to evoke or inculcate ecological consciousness among people to make an eco-sensitive or eco-friendly environment. A few studies have been mentioned below that are done in this regard.

Daramola and Odunsi (2016) carried out a study in which they particularly focused on the examination of the environmental knowledge of tertiary-level students of public institutions in Nigeria. The researchers collected the sample through a questionnaire. The study found a significant difference in the level of ecological knowledge among learners. Dhanya and Pankajam (2017) analyzed 300 secondary school students in Coimbatore. The study revealed that higher numbers of students were unaware of the ecology or they were ecologically unaware. Thi Tue (2021) integrated Ecological Lifestyle Education into the Citizen Education Subject at Junior Secondary Schools in Vietnam. The researcher used the document analysis method so that it would be easier to impart ecological knowledge in formal education. Dilova et al. (2024) studied the significance of environmental education in the formal educational system. As per the researchers, the environmental representation in the textbooks should be eco-friendly. The researchers also stated that the children's upbringing and the content of the textbooks should be in harmony to incorporate environmental awareness.

Material and Methods

The present study, "Exploring Ecological Representation in PCTB's (PCTB's) English Language Textbook (Book I) of Grade XI", is majorly premised upon exploring ecological education within the formal textbooks. The study has a single phase, which is the Screening Phase. In this phase, the content that talks about the environment in any term or in any way, whether implicit or explicit, is separated and categorized as environmental content. The overall study is qualitative and uses Multimodal Analysis. . Kress and Van Leeuwen's Multimodal Discourse Analysis Modal has been used for the study. In their 2001 work, "Multimodal Discourse: The Modes and Media of Contemporary Communication," the scholars talked about multimodality. According to them, meaning does not only reside in the written mode of language. Rather, the other modes like visuals, sound, and gesture are also involved in the meaning-making process. That is why the textual and visual content of Book I have been observed deeply to find out the portrayal of the human-nature relationship in Book I.

Data Analysis

The Screening of content of Book I has been done to highlight the environmental representation in the English Language Textbook of Grade XI. Moreover, the screening also depicts how nature and human relationship is seen within the book and the multiple roles nature has been playing in the book.

The content of Book I that has an implicit or explicit reference towards the environment has been figured out in this part. There are 15 chapters in Book I. This

section is further shortlisted into 2 sub-sections: Screening of Textual data of Book I and Screening of Visual data of Book I.

Screening of Textual Data of Book I

Book I of Grade XI of Punjab Curriculum and Textbook Board (2015) comprises of 15 lessons. The lessons have been titled as Lesson No. 1: *Button, Button*, Lesson No. 2: *Clearing in the Sky*, Lesson No. 3: *Dark They Were, and Golden-Eyed*, Lesson No. 4: *Thank You, M'am*, Lesson No. 5: *The Piece of String*, Lesson No. 6: *The Reward*, Lesson No. 7: *The Use of Force*, Lesson No. 8: *The Gullistan of Sa'di*, Lesson No. 9: *The Foolish Quack*, Lesson No. 10: *A Mild Attack of Locusts*, Lesson No. 11: *I have a Dream*, Lesson No. 12: *The Gift of the Magi*, Lesson No. 13: *God be Praised*, Lesson No. 14: *Overcoat*, Lesson No. 15: *The Angel and the Author-and Others*.

The textual analysis highlighted that environmental representations do exist in these chapters. However, some chapters explicitly talk about nature while some implicitly reflect nature or non-human objects. Any text that has an implicit/indirect or explicit/direct portrayal of nature or non-human objects is selected as the environmental text of Book I. *Button; Button* is the first chapter that Richard Matheson has written. The title of this chapter lacks environmental representation implicitly or explicitly. The natural elements are used merely as a setting, like the depiction of weather and the surroundings. As one can see in this line, "It was just getting dark" (p.1). The line, however, suggests the time as a background.

The second chapter of the book is titled *Clearing in the Sky*. Jesse Stuart has written this chapter. The title shows the nature-human relationship. The title carries both implicit and explicit meaning. The title shows a strong human and nature bond. It is pointing fingers towards the natural beauty on the top of the mountain hill. Apparently, there is a direct portrayal of the human-nature relationship while the hidden meaning is something else. Here, the word "Clearing" may be understood as a blockage that prevents humans from reaching the "Sky", which is the actual destination. The chapter's title also talks about human struggles or a new beginning. Nature's portrayal varies within the chapter. It is used as a background, as mentioned in this line. "Isn't it too hot for you to do much walking?" (p.11) Natural elements like the sun and summer are portrayed as damaging. The word "Sweat" is used when someone faces the severity of the sun's hotness. It is said in the chapter, "I wiped the streams of sweat from my face to keep them from stinging my eyes" (p.11). The weather is seen as wild. "I knew how hot it was. It was 97 in the shade" (p.11). Weather is portrayed as a challenge that is difficult to bear. If one natural entity (sun) is damaging, then others (plants) present a soothing look, as mentioned in this line, "He took his pocket knife from his pocket and cut a wisp of alfalfa. He held it up between him and the sun" (p.11). Thus, these lines portray nature as a solace to human suffering. Nature is seen as a peaceful entity. It is shown in the following paragraph.

'I like these woods, Jess,' my father said. 'Remember when we used to come here to hunt for squirrels? Remember when we sat beneath these hickories and.....These were good days, Jess! That's why I remember this mountain' (p.11).

Nature is seen in many ways in the chapter. One can observe it as a facilitator, helping humans to achieve their goals, while at other times, it can also be seen as a source of happiness or relaxation for human beings. There is a moment in the chapter and the father is climbing the mountain amidst the scorching heat of the sun. He held a little

sapling and relaxed for some time. Mountains were seen as challenging, but saplings and other natural entities appeared as assistance.

Dark They Were and Golden-Eyed has been written by Ray Bradbury. The title is a strong portrayal of nature. The words "Dark" and "Golden-Eyed" hint towards physical change in humans. It fingers towards climatic change and nature's dominancy over other beings. As the lines say:

The man felt his hair flutter and the tissues of his body draw tight as if he were standing at the center of a vacuum..... The children, small seeds, might at any instant be sown to all the Martian climes (p.18).

The other line, "The children looked up at him, as people look to the sun to tell what time of their life it is. His face was cold" (p.18). The lines clearly show human dependency on nature. The metaphor of "wind" is used to signal the power of nature.

The wind blew as if to flake away their identities. At any moment the Martian air might draw his soul from him, as morrow comes from a white bone.....He felt submerged in a chemical that could dissolve his intellect and burn away his past (p.18).

In this line, "I feel like a salt crystal, in a mountain stream, being washed away" (p.18), salt is used to preserve things. Here, salt behaves like Mars. As the nature of salt is to absorb anything, Mars is also dissolving the earthy qualities of Earth people. The chapter is all about nature's powerfulness and human weakness.

Thank You Ma'am has been written by Langston Hughes. There is no environmental representation in the chapter. The whole chapter is devoid of any description of the environment or nature or natural surroundings.

Guy de Maupassant has written *The Piece of String*. The story takes place in a rural setting. Initially, nature is shown as a part of the background of the story, but later on, it also depicts the power and uncontrollable aspect of nature. As in this line, "It is said that a great flood in its great wrath carried away the people and all their belongings" (p.33). The word "flood" shows nature's uncontrollable power, silent observation and aggressive outcome. As in these lines, "Here lies the man who would not prove his innocence, but the flood proved it!" (p.34)

Lord Dunsany has written *The Reward*. The chapter has no reference towards nature or the natural environment. *The Use of Force* by William Carlos Williams has no apparent environmental representation. However, one may have an implicit reference towards the environment. In this chapter, the child is suffering from the disease Diphtheria. Diphtheria can be seen as a vulgar or damaging natural entity that is fatal to human survival. Diseases are natural and thus considered as a powerful natural means to create a strong impact on human lives. However, the doctor's effort to control the disease may be taken as an effort to get rid of nature. Human powerlessness and nature's strength have been shown in the whole chapter.

Sheikh Sa'di has written *The Gulistan of Sa'di*. Sheikh Sa'di has used nature directly as a metaphor to pinpoint morality and humility. The title shows a natural element with the word "Gulistan." Gulistan means a garden that shows serenity and beauty. Human-nature connectedness is shown in the title. In total, 3 stories have been mentioned in the chapter. The first story shows nature's role as alarming or dangerous

for human survival by using the words “sea” and “storm.” Nature has been given a voice so that it teaches morality. Nature or natural phenomenon is seen as something that can be tackled with the help of man-made stuff. In the second story, only the name of the animal is mentioned. There is no reference towards nature. In the third story, there is also no implicit or explicit reference to nature. However, the natural entity “Sky” is only used. It is used as a symbol of hope. There is a minute description of nature in this story.

An anonymous writer has written *The Foolish Quack*. The title does not carry any reference towards nature. Nature is only seen as a background setting in the chapter. In the line, “One evening, as the sun was setting, some travelers stayed to rest under a clump of trees, and, loosening their camels, set them to graze” (p.57). Nature has been seen in different ways. The word “Tree” is used in these lines to show nature providing comfort to humans. Animals are shown to be inferior to human beings with no voice. They obey the orders of humans and fulfil human desires for their livelihood. Nature is also portrayed as vulgar or as something responsible for human suffering. As in this line, “The ground was so stiff and hard that he made slow progress” (p.57). It shows nature’s impactful role in humans and how human actions are strongly connected with nature or natural surroundings. In this line, “He struck a camel which was feeding off the leaves of a wild plum” (p.58). The line gives a clear image of human control over natural entities like animals. Animals are seen as inferior. The whole chapter thus presents the awful image of a nature-human relationship.

Doris Lessing has written *A Mild Attack of Locusts*. The title carries a strong mark of nature-human relationship. Locusts serve as natural entities that are seen as powerful, frightful, and uncontrollable entities. In the story, the swarm of locusts was not very dense while attacking the fields, but still, it became the reason for much chaos and fear among humans. The chapter’s title depicts that the attack was minor, but the panic, destruction, and chaos tell the other side. Locusts serve as a natural disaster that is away from human control. In this line, “Over the rocky level of the mountain was a streak of rust-colored air, Locusts” (p.62). The word “rust” shows the massive destruction. It reflects human dependency upon nature for their survival. Humans are seen as helpless in front of natural calamities. Moreover, humans are also using other natural elements to escape from natural calamities. As seen in these lines:

Margaret could see the smoke of fires rising from all around the farmlands. Piles of wood and grass had been prepared there. There were seven patches of bared soil, yellow color and pink, where the new mealies were just showing, making a film of bright green; and around each drifted up thick clouds of smoke. They were throwing wet leaves on to the fires now, to make it acrid and black (p.62).

It shows the incompetency of human beings in front of nature. Nature’s supremacy is obvious in the chapter. The natural elements are seen as tyrant as in these lines, “The sunlight comes down distorted, a thick, hot orange. Oppressive it was, too, with the heaviness of storm” (p.62). The sun serves as a damaging entity. Thus, it gives the message that nature is fatal to human survival. Human weakness is obvious in the powerful portrayal of Locusts. As mentioned in these lines:

The main swarm isn’t settling. They are heavy with eggs. They are looking for a place to settle and lay. If we can stop the main body settling on our farm, that is everything. If they get a chance to lay their eggs, we are going to have everything eaten flat with hoppers later on (p.63).

The whole chapter thus gives a fragile picture of human beings and the destructive look of the natural entities. Thus, the nature-human relationship is very negative here.

The next chapter is *I Have a Dream*. Martin Luther King has written it. The chapter has no concern with nature or the natural environment. Nature is just as a backdrop. As in these lines, "I have a dream that one day on the red hills of Georgia....." (p.67). "I have a dream that one day every valley shall be exalted, every hill and mountain shall be made low" (p.67). The lines are clear-cut references towards something else beyond nature's concern.

O. Henry has written *The Gift of the Magi*. This chapter, like the above, also lacks environmental representation. The only natural word, "water", is used to beautify Della's hair. As mentioned in this line, "Della's beautiful hair fell about her, shining like a falling stream of brown water" (p.73).

The next chapter, *God be praised*, has been written by Ahmad Nadeem Qasmi. The title lacks environmental representation. Only the word "God" is used as a supernatural entity that is more powerful than humans and the natural world. Nature is only used in a setting in the chapter. These lines have nature's representation: "Prices have risen so suddenly that it seems though all the cows and buffaloes in the country have been dispatched to the Mount Caucasus" (p. 79). "He put a match to a dry twig and, with it, lit the earthen lamp. The flame flickered for a while and then became steady" (p.82).

The next chapter is titled *Overcoat*. Ghulam Abbas has written it. One can notice natural entities here. The title, however, lacks environmental representation. The writer has given power to nature; otherwise, it is merely seen as a backdrop. As in the line, "It was a Saturday evening in mid-winter. The sharp icy gusts of wind struck like steel" (p.87). The line reflects the severity and harshness of the natural environment. In another line, "A small lean white cat shivering with cold rubbed against his legs and mewed. He stroked it, and it leapt up onto the bench" (p.88). These lines reflect human's powerfulness in front of nature. Thus, the chapter shows the bond between humans and nature. The last chapter of Book I is *The Angel and the Author- and Others*. Jerome K. Jerome has written it. The whole chapter, including the title, lacks environmental representation, whether direct or indirect.

Screening of Visual Data of Book I

Book I lacks visuals and color schemes. Colors have a potential impact on ideological construction. However, this book is void of colors. The whole book is in black and white. The cover page is in Green and Sky Blue. It has a single image at the center, reflecting a circle in which a book is shown that highlights the significance of knowledge. The back side of the cover page shows the image of Quaid-e-Azam, Pakistan's map and flag. It shows patriotism. The inner side of the back side of the cover page also has images. A message is written there of not saying "yes" to corruption. Overall, the whole page has no environmental representation. The screening of the visual data of Book I lacks the portrayal of the environment.

Discussion

The study particularly focused on exploring the environmental representation in Book I of the Punjab Curriculum and Textbook Board's (PCTB's) English Language Textbook for Grade XI. The qualitative analysis of the content of Book I indicates that the

content has not discussed the environment and its associated phenomena, specifically in the Pakistani context. The environment is discussed mainly as a beautifying entity to romanticize environmental phenomena rather than to pinpoint sustainability issues. The textual data of Book I has a rather more environmental representation than the visuals of the book. There is not a single image in Book I that hints towards the environment and its related issues. The portrayal of the environment in the book is not strong. Hence, it is less interactive. That is why it is challenging to think critically about the environment.

The limited environmental representation within Book I does not align with the global educational demands. Globally, the policymakers and the curriculum designers stressed incorporating the content needed for sustainable development. 'Education for Sustainable Development (ESD)' needs to be inculcated at all levels of education and in all sorts of books. The minimal representation of environmental content shows the disconnectedness between humans and nature. Moreover, the content lacks the depiction of the environmental concerns that Pakistanis usually face in their everyday lives.

Conclusion

The overall screening of the textual and visual data of Book I marks a significant difference in their portrayal of the environment. Out of 15 chapters of Book I, only 8 chapters have an environmental representation. Some chapters explicitly portray the environment, while some have an implicit reference towards nature. Few chapters show a positive human-nature relationship, while few chapters portray a negative relationship. The human-nature relationship varies. Some chapters dominate humans over nature, while others prioritize nature over humans. Overall, the textual data of Book I have some traces of environmental representation, while the visual data lacks environmental representation.

Recommendations:

The findings of the study reveal that there is a dire need to incorporate eco-sensitive content in formal education. Punjab Curriculum and Textbook Board's (PCTB's) English Language Textbook of Book I of Grade XI needs more eco-materials to be added in them. The majority of the book's parts lack eco-sensitive content. However, many chapters do not even include the environment in their content. The curriculum designers should focus on and incorporate environmental themes in the book as well. The content should not just beautify the natural elements but should also evoke the sense that helps in making a "sustainable eco-conscious environment" favorable for living. Moreover, the book also needs visuals and color schemes to create a lasting impact on the learners. The visuals and the color patterns enhance the understanding capability of the learners. In this way, they better understand the complex yet significant everyday phenomena. Future studies can be carried out on PCTB's English Language Textbooks for Grade XII, namely, Book II and Book IV.

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