




Exploring Sustainable Skills in Teaching and Learning: Introducing Eco-Pedagogy in English Classroom Teaching and Research

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Abstract. Addressing the environmental change is not only the responsibility of the scientists. The global environmental change is now a collective consciousness and responsibility as the effect and the consequences are felt by all. Environmental issues are of multifaceted dimensions. Barry Commoner's first law of ecology states that "everything is connected to everything else" According to Cheryll Glotfelty ecocriticism is "the study of the relationship between literature and the physical environment. It takes an earth-centred approach to literary studies. It considers the interconnectedness of all living beings and the environment, and how literature and culture reflect and interact with the natural world Literary concerns about the environment are not a novel idea; the poetry of Wordsworth, Coleridge, Keats, Shelley, Clare, and many other poets of the Romantic Age laid a foundational and enduring exploration of nature's significance, emphasizing its sublime beauty and the interconnectedness between humanity and the natural world. Environmental issues are of multifaceted dimensions. Environmental issues are complex and there are so many interconnected factors that include ecology, society, economy, and politics. Solving these challenges requires a comprehensive and integrated approach looking into various aspects of sustainability. Eco pedagogy is a movement to create transformative educational practice, a collective consciousness to combat climate change that combines the ideas of Paulo Freire's critical pedagogy and the principles of complex thinking proposed by Morin. It aims to challenge the effects of neoliberal globalization by promoting an alternative global political project. Eco Pedagogy is an interdisciplinary/multidisciplinary emerging academic field to be inculcated in the English pedagogy seeking human involvement. The Human-environment relationship with nature can further help in cultural transformation.

Keywords: Interconnectedness, Eco-criticism, Eco Pedagogy, Cultural transformation.

1 Introduction

The period we belong to is a juncture, to evaluate more or less the status of the condition surrounding our ecosystem which we desperately need to analyse the moment in the history of the human relation to the environment, Environment is considered to be a sublime symbol that has now turned to ecological unconscious due to the hustle and bustle of the modern world. Nostalgia exists only in our imagination. By equipping individuals with the knowledge and understanding of sustainability, education can empower them to make informed choices and adopt sustainable practices. Eco pedagogy is a movement to create transformative educational practice, a collective consciousness to combat climate change that combines the ideas of Paulo Freire's critical pedagogy and the principles of complex thinking proposed by Morin. It aims to challenge the effects of neoliberal globalization by promoting an alternative global political project. Eco Pedagogy is an interdisciplinary/multidisciplinary emerging academic field to be inculcated in the English pedagogy seeking for human involvement. The Human-environment relationship with nature can further help in cultural transformation.

2 Why Ecopedagogy?

Why Eco pedagogy as a sustainable skillset?

Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC). The aim is to encourage countries to take actions that contribute to a more environmentally friendly and sustainable future.

COP28, or the 2023 United Nations Climate Change Conference, is from the 30th to 12th December. The conference was held at Expo City in Dubai, United Arab Emirates. The main aim of COP28 is to plan a course of action to reduce emissions and protect lives and livelihoods.

Sustainable Development Goals: Goal 13 Take urgent action to combat climate change and its impacts. Every person in the globe will be impacted in some shape or form by climate change.

NEP's main focus is on multidisciplinary and All-inclusive education to develop critical thinking, variability, adaptability, problem-solving and communication skills in the learners

Teaching and learning through multimodal methods, NEP stresses upon proper incorporation of environmental awareness and understanding towards its preservation and sustainable development in school curricula.

As per UNESCO Environmental study is not a distinctive branch of science and claims "Environmental education is a method of putting the objectives of environmental conservation into practice"

Thus, Eco-pedagogy would help the students of language and literature to come up with a viable solution and address the issues of the environment.

3 Objective

To incorporate Ecopedagogy into classroom teaching through various workshops and training the teacher's program can prepare the teachers to make strategies to implement a new pedagogy for the benefit of mankind:

The program not only emphasizes developing the skills of the faculties but also underlines the crucial contribution of the faculties in elevating the overall quality of higher education. NEP 2020 also envisions that pedagogy becomes learner-centric with a robust mechanism for continuous, comprehensive evaluation and assessment of learners.

Directs that real-world and engaging activities can help students develop a greater understanding of the syncretism of the man-nature relationship, improve their language skills, and promote awareness about environmental issues. Activity-based Learning can be promoted to avoid the traditional teaching methods.

4 Analysis

Waves of Ecocriticism

The first wave abandoned the urban setting (1980 -1990): A primary concern in first-wave ecocriticism was to "speak for" nature. The first wave of eco-critics saw nature and humans as opposed to each other. (Buell 1996)

The second wave included the urban setting (late 1990's): The second wave of eco-critics redefined the term 'environment' by including both nature – pastoral and wilderness, and urban. (Garrard 2012)

The third wave concentrated on building environments in urban settings (2009): It gives space for teachers and students to find inventive ways to bring about a change in society through their activities. (Adamson 2016)

5 Incorporation of Eco-Pedagogy in English Classroom Teaching (Role of Teachers)

To create a sense of responsibility among the learners towards the environment as a sustainable practice, educational institutions can contribute to the development of environmentally responsible and conscious individuals. The following objectives are outlined for the purpose.

Design a curriculum that incorporates environmental themes and issues.: Merging Environmental practices with teaching techniques and Research

Promote a sense of ecological interest among the learners

Making learners conscious of the environment and its sustainability and encouraging sustainable practices to connect with nature.

Weaving environmental concepts into literature and language lessons. Eco-pedagogy encourages critical thinking and a holistic perspective, nurturing environmentally conscious citizens through the educational process.

Add ecological principles into educational practices for an eco-conscious society.

To find out the impact of environmental education on language acquisition and cognitive learning.

To investigate the effectiveness of integrating sustainability into language teaching methodologies.

To add ecological principles into educational practices for an eco-conscious society.

To include visual literacy on environmental issues.

6 GEN Z

The Gen Z or the generation Z are the individuals born between 1997 and 2012. The Gen Z activist wants their voices to be heard and are determined to bring social change to save the world: Gen Z seems to be socially focused at a very young age and is keen on social justice issues. They are ready to utter the inconvenient truth and to get noticed in the global forums. Popular activist includes Greta Thunberg (Environmental activist), Ed Winters (Animal welfare), Stella Keating (Gender cool activist), Chloé Hayden (mental health), and Amika George (Free Periods) engaged in the discourse surrounding a sustainable world Gen Z are eco-conscious generation and born in an era of climate change and aware of the impact of the environment on climate change

The generation is concerned more with values over possessions, concerned with environmental issues, technically sound and diverse in religious, sexual and social issues. They fight hard to eliminate preconceived notions. Gen Z supports social movements such as Black Lives Matter, transgender rights and climate change. Gen Z are eco-conscious generation born in an era of climate change and aware of the impact of the environment on climate change.

7 SURVEY

A survey was undertaken among Gen Z individuals, specifically targeting undergraduate students from VIT Vellore, KIIT Bhubaneswar, and Rama Devi Women's University Bhubaneswar, to gauge their participation in outdoor activities. The responses collected exhibited a range of perspectives and behaviours regarding engagement in outdoor pursuits. The varying responses also highlight the diversity within this generation, with some preferring indoor activities, some being regular outdoor enthusiasts, and others falling somewhere in between. GenZ's addiction to technology like social media, video games, computers and television has restricted them from going outdoors and their lack of access to the natural world. There's potential to leverage outdoor spaces for educational initiatives related to the environment. We notice a diverse preference within Gen Z and therefore, it is crucial for designing initiatives and spaces that align with their interests while fostering environmental stewardship. This could be due to various reasons such as a preference for indoor activities, lack of interest in outdoor games, or limitations in access to

suitable outdoor spaces. exposure to the virtual world restricts them from appreciating the natural environment that is full of life and vigour. Nature also enhances our critical thinking, problem-solving solving and decision-making abilities.

What would be Zenzers verse?

This phrase is from the poem "O Me! O Life!"? by Walt Whitman. It is a rhetorical question asking what positive things can be found amid life's challenges and difficulties. It reflects a sense of disillusionment and a search for meaning in the face of adversity

8 Incorporating Eco Pedagogy in Language Labs (LSRW)

Select environmental podcast (L)

Ask students to identify the sounds of different animals and birds to understand the music of nature. And use their imagination to write poems (L and W)

Initiating group discussions/debates on environmental issues (S)

Brainstorming ideas for sustainable development (S)

Book reading Club. (R)

Celebrating seasons (Sawan, Basant, Onam, Bihu Utsav, pahili Baisakh): Students are involved in wall magazines with themes related to the environment in alignment with the seasons.

Flash mob on environmental issues like climate change, and deforestation, as outreach activity to create an impact on civilians. (these are team projects) (S)

Create meaningful dialogue/Skit/ Roleplay/monologue that covers environmental themes. (S)

Nature Walk as a departmental study tour.

Appreciating seasonal fruits (Gustorics), Gastronomy (the study of the relationship between food and culture)

Movie screening on environmental issues and a post-screening discussion as a part of participatory learning to enhance problem-solving and critical thinking. (L and S)

9 Eco-Linguistics

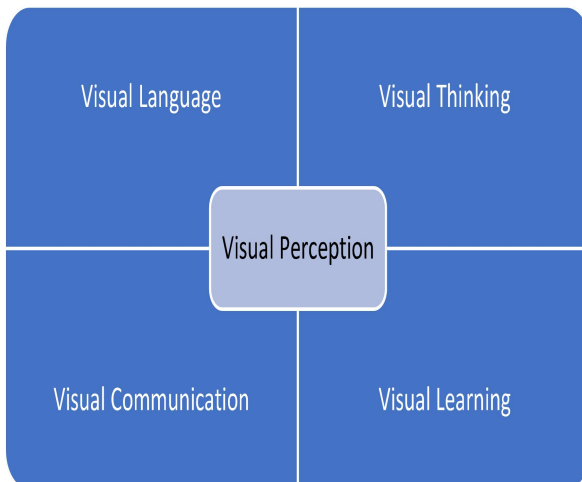
Eco-linguists means language and discourse affect the environment and ecology. We require a language of ecological humility, a language free from the "directionalities of humanism, a language that incorporates a decentred. post-modern. post-humanist perspective". (Phillips, 2019). Eco-linguist needs to identify texts, literature, or media that explore ecological themes. This could include works of fiction, non-fiction, poetry, or even environmental articles and analyse how language is used to represent and discuss environmental issues. Preparing a set of language as a descriptive tool from the ecological sciences. (Turner et al., 2015). The Sapir-Whorf hypothesis, also known as linguistic relativity, is the idea that the structure and vocabulary of a language can shape or influence the way its speakers perceive and think about the world. This hypothesis suggests that the language we use can affect our cognitive processes and the way we interpret and understand the world around us.

It was proposed by linguists Edward Sapir and Benjamin Lee Whorf in the early 20th century and has been the subject of much debate and research in the fields of linguistics, psychology, and anthropology. (Whorf, 1956).

10 Exemplary Places of Learning: Santiniketan

The school appeared to Tagore like that of a prison. His mind generally wandered during classes while his peers were paying attention to the teachers. He believed that even if a student's mind wanders, it would reside in the cosmos and in a way would have a relationship with the cosmos. Tagore believed in students' active engagement with the natural world in the form of pragmatic learning. Biswa Bharati University erstwhile Shantiniketan celebrates seasons instead of festivals. With the changing times, the basic ideology of Tagore's still remains and students are taught under the skies, close to the natural environment. The curriculum was a unique blend of art, human values and cultural interchange. Yoga, games & sports are prescribed in Santiniketan as an integral part of the education system where sensory training is the tool. Learning that is not regulated by religious or regional barriers.

11 Visual Literacy





Visual Perception: Individuals interpret and make sense of visual information. recognize visual cues and derive meaning from them:

When showing a picture of "The Waste Land," visual perception comes into play as students engage with and interpret the visual elements in the artwork. It involves their ability to recognize shapes, colours, and other visual cues and derive meaning from them.

Visual language: use of visual elements such as symbols, colours, and shapes to convey meaning and communicate ideas. Students can analyze how visual elements contribute to the artistic representation and interpretation of the literary work.

The visual language in the picture of "The Waste Land" includes elements chosen by the artist to represent themes, emotions, or concepts from T.S. Eliot's poem. Students can analyze how visual elements contribute to the artistic representation and interpretation of the literary work.

Visual thinking: Visual thinking is the cognitive process of organizing and processing information visually. They use their cognitive skills to connect the visual representation with the themes and emotions conveyed in Eliot's poem, fostering a deeper understanding of the work.

When students examine the picture of "The Waste Land," visual thinking becomes essential. They use their cognitive skills to connect the visual representation with the themes and emotions conveyed in Eliot's poem, fostering a deeper understanding of the work.

Visual Communication: Learner's use of visual elements to convey messages, information, or ideas. Learners will share their interpretations and perceptions of the visual elements.

The picture serves as a form of visual communication, expressing the artist's interpretation of "The Waste Land." As students discuss and analyze the image, they

engage in visual communication by sharing their interpretations and perceptions of the visual elements.

Visual Learning: visual representation that enhances their understanding of the poem

It caters to their preferred learning style by offering a visual representation that enhances their understanding of the poem.

Inclusion of Cli-Fi

The recent harvest of the "plantation of the English language" in the world has shifted stress on reading fictions on Climatic Fiction in Academic Studies in place of Literature. Climatic fiction covers the book where the plot contains the altered climate. The Fiction is dystopian visions of climate change to avoid the apocalypse and create a new world order of literary significance.

The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture is a book written by Lawrence Buell. It explores the role of nature writing and the ideas of Henry David Thoreau in shaping American culture. The book examines how Thoreau's writing helped to establish a tradition of environmentalism in America, and how this tradition has influenced American literature, politics, and society. Buell argues that Thoreau's work was not only important in its own time but also continues to be relevant today, as we face new environmental challenges. The book is a study of the relationship between literature, culture, and the environment, and it offers insights into how our ideas about nature have shaped our society.

Walden; or, Life in the Woods by Henry David Thoreau (1854). It describes Thoreau's experiences living in a small cabin near Walden Pond in Massachusetts for two years. The book explores themes of simplicity, self-sufficiency, and the beauty of nature, and has had a significant influence on the environmental movement and the concept of simple living. "Walden" is a philosophical and introspective work that continues to inspire readers with its reflections on the timeless themes of simplicity, self-reliance, and the beauty of the natural world.

Richard Louv's *Last Child in the Woods* speaks on nature-deficit disorders as a result of the loss of connection of the child to its natural environment due to the advent of technology.

Gold Fame Citrus is a novel by Claire Vaye Watkins that explores a dystopian future where water has become scarce in the western United States. The story follows a young couple, Luz and Ray, as they navigate this harsh new world and try to survive in the desert. The title refers to the valuable and sought-after nature of water in this setting, as well as the allure of fame and success in a society that has been drastically altered by environmental disasters.

In 2004, Amitav Ghosh cast the net of his climate-fiction novel *The Hungry Tide* into the deeply troubled waters of the Bay of Bengal

Animal's People, Indra Sinha's unflinching novel that was published in 2007, is set against the 1984 Bhopal Gas Tragedy. A bone-chilling critique of the effects of neo-imperialism on low-income or developing countries, the novel follows Animal, a young victim of the gas explosion who is forced to walk on all-fours because of his broken spine and awaits redressal of his wrongs like all the other working-class Bhopal citizens

The Skillful Teacher: On Technique, Trust, and Responsiveness in the Classroom is a book written by Stephen D. Brookfield, Brookfield explores the importance of effective teaching techniques, building trust with students, and being responsive to their needs in the classroom. He provides practical advice and strategies for educators to improve their teaching skills and create a positive learning environment for their students. The book emphasizes the importance of understanding and meeting the diverse needs of students and fostering a supportive and inclusive classroom environment. The first edition was published in 1982

Eco-pedagogy as a Moral Imperative: Being and Becoming in Eco-pedagogy by Salvador Barrera is a book that explores the concept of eco-pedagogy as a moral obligation discusses the importance of integrating ecological principles into education and argues that it is essential for individuals to understand their role in the environment and work towards sustainable living.

The Overstory is a novel written by Richard Powers (2018) that explores the relationship between humans and trees and the impact of deforestation on the environment. It was a finalist for the Pulitzer Prize for Fiction in 2019 and won the 2019 National Book Award for Fiction. The book has been praised for its lyrical prose and thought-provoking themes about the importance of trees and the natural world.

Indigenous narratives to understand the environment

Every individual must respect and value Indigenous ways of knowing and understanding the world, while also promoting environmental sustainability and interconnectedness with the natural world. Indigenous communities around the world have been taking care of the environment for a long time, protecting ecosystems by having a deep understanding of nature. Language, as a vessel of culture, Unless and until we infuse the indigenous narratives into the English curriculum, we won't be able to enrich linguistic diversity but also instil a deep appreciation for the environment. Through the study of indigenous literature, can connect with the profound relationship between language, culture, and nature.

12 Conclusion

Pedagogy must overcome challenges to incorporate certain literary texts in the curriculum to invent a new basis for building personality. It is therefore important to preserve our environment, culture and roots for the next generation. The continued existence of the planet should stress all political, economic and academic decisions and be constituted as the missing link in the curriculum. The paper would serve as a new dimension for environmental sustainability. In addition, the paper would be a valuable addition to meet the changing needs of research.

Sustainable Development Goals emphasize the need for synchronized global efforts to achieve a more sustainable and resilient future for the planet and its inhabitants. Education in the form of teaching and research will play the role of a catalyst for change and sustainable development, The OECD Organisation for (Economic Co-operation and Developments) is an organization that helps countries work together to solve problems and make policies that improve the lives of people

around the world. It provides a place for countries to talk and work together to find solutions to modern challenges. Sticking to a curriculum that only teaches the same things as in the past might not prepare students for a future that is always changing. (climatic change, depletion of resources, technological advances, AI, ChatGPT) Because of this, many countries are thinking about changing their school curriculums to make sure that students learn the things they will need to know for the future. This includes not just knowledge, but also skills and abilities that will be important for dealing with the challenges of tomorrow.

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