

Reviving Storytelling for Environmental Literacy: A Focus on Children Aged 4-12

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Abstract

This research paper explores the potential of storytelling as a means to revive environmental literacy and empathy, particularly targeting children aged 4-12. The paper draws on ecocentric theories and existing research to argue that children's literature, with its simple language, subtle plots, and sentient settings, can serve as a powerful tool for developing environmental intimacy and subsequently literacy. The study emphasizes the need to create and nurture an instinctual kinship with nature in children, with the ultimate goal of fostering a sense of responsibility and citizenship for environmental protection. The pilot study, conducted in schools in Kerala with a student beneficiary count of 500, provides preliminary insights into the effectiveness of incorporating storytelling into environmental education.

Keywords: Environmental literacy, Empathy, Storytelling, Children's literature, Ecocentrism, Pilot study, Sustainable solutions.

1. Introduction

1.1 Background

The growing environmental concerns highlight the need for effective strategies to cultivate environmental literacy and empathy, particularly among younger children. This paper focuses on utilizing storytelling, specifically through children's literature that decentralises the human element, as a means to address this challenge.

1.2 Objectives

The primary objectives of this research are to underscore the importance of storytelling in nurturing environmental literacy, especially in children aged 4-12, and to explore the potential impact of such initiatives on environmentally empathetic behaviour and decision-making.

Narratives involving plants, animals, and insects are posited as powerful tools to foster compassion toward all living beings, transcending the anthropocentric narratives. This becomes especially relevant in urban settings where a direct connection to nature may be lacking, and stories serve as a conduit for building that vital link. By weaving tales that intricately involve the natural world, this research seeks to illuminate how narratives can ignite a sense of connection and compassion toward plants, animals, land, rivers and mountains and other living beings ignored or feared.

In today's world where direct experiences with nature may be limited, these stories aim to serve as windows into the intricate ecosystems and life forms that coexist beyond concrete landscapes and subsequently children can develop a heightened appreciation for the environment, leading to a more profound understanding of the interconnectedness between humans and the natural world. The ultimate end is cultivating a sense of responsibility and empathy, influencing future decisions and behaviours that contribute positively to environmental preservation. In a time when we should be asking ourselves about the right relationship we should have with nature, the work is of utmost relevance.

2. Theoretical Framework

2.1 Ecocentrism

The theoretical framework of this research is grounded in ecocentrism, a philosophy that challenges the traditional human-centered view of the environment and emphasizes the intrinsic value of all living beings and ecosystems. Ecocentrism has its roots in environmental philosophy, questioning the dichotomy between humans and the environment, and advocating for the flourishing of non-human species independently of human interests. Ecocentrism has played a significant role in shaping environmental education, particularly in response to concerns raised in publications like "The Limits to Growth."

The Belgrade Charter, emerging from UNESCO, set the goal of environmental education to develop a population aware of environmental issues and committed to working towards solutions. Inspired by ecocentrism, ecopedagogy promotes an "earth democracy" and the rights of all living organisms.

The theoretical foundation of the paper extends to the role of 'wonder' in establishing a connection to nature within an ecocentric framework. Various disciplines such as science, geography, drama, English, and art are suggested to be integrated into the curriculum to deepen this connection.

2.2 Ecopedagogy and Storytelling

Ecopedagogy, as mentioned in the theoretical framework, supports an 'earth democracy' and emphasizes the rights of all living organisms. In storytelling, incorporating narratives that promote a sense of interconnectedness with nature will foster empathy for all living beings. Stories that emphasize the intrinsic value of all elements in ecosystems can inform the beauty and importance of nature, encouraging children to develop a profound connection with the environment. Extending intrinsic value to all living things, stories can be designed to portray the significance of each living being in the ecosystem, promoting a non-anthropocentric perspective.

Storytelling by presenting narratives that showcase the intricate relationships within ecosystems helps children understand the importance of balance and harmony in nature. Subsequently, children's stories can instill environmental stewardship, encouraging a sense of responsibility and care for the natural world. As the Systems theory says, emphasizing ecosystems as interconnected systems, by portraying characters and events as integral parts of a larger ecological system. This approach helps children grasp the idea that all elements in nature are interdependent.

Some of the recent studies examine the bond between individuals and the natural environment: children (Cross, 2011; Ward, 2014) and adults aged 18-68 (Mayer & Frantz, 2004). The studies indicate that engaging with wild nature during childhood contributes to a heightened connection with nature in adulthood (Liefländer, Fröhlich, Bogner, & Schultz, 2013). Additionally, other scholarly works have employed an animal liberation perspective to explore the concept of biological egalitarianism in environmental education (Caine, 2008). It is asserted that children must encounter nature to enhance their "physical, mental, and spiritual health" (Louv, 2013, p. 2). The literature on the connection to nature is intricately associated with a significant research domain known as significant life experience (SLE) (Chawla, 1998; 2009). SLE research demonstrates that childhood experiences in nature commonly shape the perspectives of adults who hold a genuine concern for the environment.

3. Methodology

3.1 Target Group Selection

The study focuses on children aged 4-12 as the primary target group for implementing storytelling interventions. The selection of this age group is deliberate, considering the formative years

of cognitive development and the potential impact of environmental education during this critical period.

3.2 Pilot Study Design

The initial phase of the research involved the implementation of hands-on storytelling sessions in select schools in Kerala. The pilot study aimed to gauge the immediate reactions and responses of children to the interventions.

Key aspects of the pilot study design included:

- Storytelling sessions are structured to be interactive to engage children actively.
- Careful consideration is given to the selection of stories featuring non-anthropocentric storylines.

3.3 Data Collection

The methodology involved both qualitative and quantitative data collection methods to ensure a comprehensive understanding of the project's impact.

- **Observations:** Observations during and after storytelling sessions provided qualitative insights into the children's emotional responses, engagement levels, and any observable shifts in attitudes towards nature.
- **Surveys:** Simple pre-and post-session surveys were administered to assess changes in children's perceptions, fears, and attitudes toward the environment and living beings.

3.4 Data Analysis

The qualitative data obtained from observations and feedback are analyzed thematically to identify noteworthy behavioral changes. Quantitative survey data are subjected to statistical analysis to determine any statistically significant shifts in attitudes or perceptions.

4. Pilot Study: Results and Discussions

The pilot study conducted in schools in Kerala involved a good number of student beneficiaries (500) and the preliminary findings leaned towards the positive impact of storytelling on environmental awareness. This paper discusses the preliminary observations of the pilot study,

emphasizing the potential of storytelling to create a sense of belonging to nature and foster environmental consciousness among children. The study aimed to use storytelling as a tool to enhance environmental literacy and empathy in children aged 4-12.

While the study is still in its initial phase, several encouraging observations have surfaced from the completed storytelling sessions. Storytellers have reported a noticeable increase in empathy among the participating children towards nature and other living beings. Notably, stories featuring animated portrayals of creatures such as lizards and spiders have contributed to a reduction in fear, fostering a more positive perception of insects.

It is essential to acknowledge that, as a longitudinal study with multiple storytelling sessions planned, a comprehensive and tangible assessment of the project's impact will be feasible only towards its conclusion. The early positive implications, however, serve as promising indicators for the potential long-term benefits of integrating storytelling into environmental education for children aged 4-12. In the long term, the study expects to observe sustained environmental literacy, continued empathy and connection to nature, influence on decision-making, the formation of environmentally conscious citizens, and a positive impact on educational practices. The outcomes are contingent on the storytelling interventions' design and duration, emphasizing the potential for lasting effects on participants' attitudes and behaviours. Longitudinal studies are proposed to measure the impact of teaching on learners' relationship with nature, compassion towards non-human nature, and pro-environmental beliefs and actions.

5. Implications and Recommendations

Based on the findings, the paper provides implications for educational practices, recommending the integration of storytelling into environmental education curricula. Additionally, suggestions for further research are proposed to explore the long-term effects of storytelling on environmental literacy.

6. Conclusion

The research reiterates the significance of storytelling in reviving environmental literacy and empathy, particularly among children, and highlights the potential for broader applications in environmental education programmes. By combining theoretical frameworks, empirical evidence from the pilot study, and practical recommendations, this research paper aims to contribute to the

discourse on innovative approaches to environmental education, with a specific focus on the transformative power of storytelling.

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