Journal of Environmental Impact and Management Policy
Vol: 04, No. 01, Jan–June 2024
ISSN: 2799-113X, DOI: 10.55529/jeimp.41.1.7

Research Paper

Assessment of the impact of outdoor classrooms in environmental education in Nigeria

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Article Info

Article History:
Received: 03 September 2023
Revised: 14 November 2023
Accepted: 20 November 2023
Published: 07 January 2024

Keywords:
Outdoor Classroom
Environmental Education
Educational Practices
Environmental Awareness
Environmental Stewardship

ABSTRACT

This opinion paper examines the impact of outdoor classrooms in environmental education in Nigeria. With increasing concern about the environment and the need for effective educational approaches, outdoor classrooms have gained popularity as a promising tool for engaging students in hands-on, immersive learning experiences. The paper assesses the advantages and challenges associated with outdoor classrooms and their effectiveness in promoting environmental awareness and stewardship among students. Drawing on empirical studies and expert opinion, it argues that outdoor classrooms provide unique opportunities for students to connect with nature, enhance their understanding of ecological concepts, and develop a sense of responsibility towards the environment. It also explores potential barriers to implementing outdoor classrooms, such as logistical constraints and limited resources, and proposes strategies to overcome them. By critically examining the impact and potential of outdoor classrooms in environmental education, the paper aims to promote the adoption of this approach in mainstream educational practice, ultimately fostering a society of environmentally conscious individuals.

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1. INTRODUCTION

In recent years, educators have increasingly recognized the importance of hands-on learning experiences in promoting environmental awareness and conservation among students, and outdoor classrooms, which provide an immersive and interactive learning environment, have gained popularity.

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Outdoor classrooms are educational spaces that take learning and teaching out of traditional indoor settings into the natural environment, giving students opportunities to engage with nature, explore, ask questions, and learn in a hands-on, experiential manner. They take various forms, such as gardens, forests, parks, or designated outdoor areas within school grounds, and can support a wide range of subjects and activities, including science, environmental education, physical education, art, and social studies.

Research has highlighted several benefits of outdoor classrooms, including the promotion of creativity, critical thinking, problem-solving skills, and academic achievement, particularly when learning is connected to the local place and community [1]. Contact with nature has also been linked to reduced stress and improved well-being among children [2]. Outdoor classrooms allow students to connect theoretical knowledge with real-world applications and foster a sense of connection with and stewardship towards the natural world, encouraging sustainable practices and environmental awareness. By incorporating outdoor education into traditional curricula, educators can provide a more enriching and well-rounded learning experience.

1.1 Environmental Education

Environmental education is a process of teaching and learning that aims to raise awareness and understanding of the natural world, human impact on the environment, and the interconnections between society and the environment; it encompasses topics including ecology, conservation, climate change, sustainability, and environmental justice [3]. It has been described as a lifelong learning process that leads to an informed and involved citizenry with the creative problem-solving skills, scientific knowledge, ethical sensitivity, and commitment to engage in responsible individual and collective action [4]. The North American Association for Environmental Education (NAAEE) emphasizes that environmental education goes beyond traditional classroom-based instruction, involving experiential learning, outdoor activities, hands-on experiments, and community engagement to inspire individuals to become active stewards of the environment [4]. This paper explores and assesses the impact of outdoor classrooms in environmental education.

1.2 Types of Environmental Education

Several types of environmental education are recognized and practised worldwide [5]:

- **Formal Environmental Education:** Provided in formal settings such as schools, colleges, and universities; it is structured and systematic, with defined goals, objectives, and curricula, and focuses on creating awareness of environmental issues, building knowledge and skills, and promoting sustainable behaviour.
- **Non-Formal Environmental Education:** Learning that takes place outside the formal education system but is still organized and structured, such as workshops, camps, and clubs; it is often hands-on and experiential, allowing learners to interact with nature directly.
- **Informal Environmental Education:** Unstructured and spontaneous learning through everyday experiences, such as learning about plants and animals during a walk in the park or discussing environmental issues with friends and family.
- **Environmental Education for Sustainable Development:** An approach that integrates environmental issues into broader development efforts, recognizing the interdependence of social, economic, and environmental sustainability and promoting sustainable development practices through education [6].

2. IMPORTANCE OF OUTDOOR CLASSROOMS

- **Enhanced Learning Experience:** Field trips and outdoor activities allow students to observe and interact with their natural surroundings directly, leading to a deeper understanding and appreciation of the environment; outdoor schoolyard experiences have been associated with gains in environmental knowledge, attitudes, and behaviour [7].

- **Emotional Connection and Empathy:** Direct exposure to natural elements lets students witness the beauty, diversity, and vulnerability of their surroundings, fostering an emotional connection with nature and encouraging them to become advocates for its preservation; childhood experiences in wildland environments shape later environmental preferences [8].
- **Improved Environmental Attitudes and Behaviours:** Students exposed to outdoor educational experiences are more likely to develop pro-environmental attitudes, such as a desire to protect natural resources, reduce waste, and support sustainable practices, and even short-term outdoor ecology education can have lasting effects on environmental perspectives [9].
- **Life Skills Development:** Beyond knowledge acquisition, outdoor classrooms promote problem-solving, critical thinking, teamwork, and adaptability, skills that are transferable to other aspects of students' lives [10].
- **Long-Lasting Impact:** People who took part in outdoor experiences and environmental education in their youth are more likely to engage in pro-environmental action later in life [11], so integrating outdoor classrooms into environmental education can help cultivate a generation of environmentally conscious citizens.

3. BARRIERS TO THE IMPLEMENTATION OF OUTDOOR CLASSROOMS

Despite their benefits, including improved academic performance, increased physical activity, enhanced creativity and problem-solving skills, and a stronger connection with nature, several barriers may hinder the implementation of outdoor classrooms:

- **Lack of Awareness and Understanding:** Many educators, administrators, and policymakers may not be fully aware of the concept and potential of outdoor classrooms, or may have misconceptions about their effectiveness in academic settings [12].
- **Safety Concerns:** Educators, parents, and administrators may worry about risks associated with outdoor activities, such as accidents, extreme weather, or encounters with hazardous plants or animals [10].
- **Lack of Resources and Infrastructure:** Outdoor classrooms require appropriate learning spaces, seating, natural materials, and tools or equipment, and limited funding and insufficient space may hinder their development [12].
- **Time Constraints:** The structured school day and curriculum may not allow dedicated time or flexibility for outdoor learning, and teachers may feel pressured to cover a fixed curriculum and prioritize standardized testing [10].
- **Lack of Support and Training:** Many educators lack professional development opportunities or training in using outdoor classrooms effectively and require support to integrate outdoor learning into their teaching [12].

By addressing these barriers through education, awareness, and investment in appropriate resources and training, schools and communities can create an environment conducive to successful outdoor classrooms.

4. STRATEGIES TO OVERCOME THE BARRIERS

- **Address Safety Concerns:** Conduct a risk assessment and develop a safety plan that addresses potential hazards, including weather conditions and emergency response procedures.
- **Build Community Support:** Engage parents, teachers, community leaders, and other stakeholders, and create partnerships with local organizations that promote environmental education and outdoor learning.
- **Provide Teacher Training:** Training and support can help teachers develop the skills and strategies to create engaging outdoor lessons aligned with curriculum standards.

- **Secure Funding:** Seek grants and donations from local businesses and community organizations to cover the cost of materials and construction.
- **Promote Student Engagement:** Create engaging, interactive outdoor activities such as hands-on experiments, nature walks, art projects, and group discussions.

5. RECOMMENDATIONS

Outdoor classrooms have a significant impact on environmental education by providing an immersive, hands-on learning experience. The following recommendations are made:

- **Enhance the Learning Experience:** Use outdoor classrooms to let students engage directly with nature, improving comprehension and retention of environmental concepts.
- **Encourage Observation and Connection:** Have students observe plants, animals, weather patterns, and ecosystems to appreciate the interdependence of living things.
- **Provide Practical Application:** Let students conduct experiments, collect data, and analyse findings in real-world environments.
- **Use Experiential Learning:** Engage students in activities such as planting trees, making bird feeders, or building compost bins.
- **Support Emotional Well-Being:** Use time outdoors to reduce stress and help students feel more relaxed and engaged in learning.
- **Foster Environmental Stewardship:** Involve students in projects such as clean-ups, tree planting, and habitat restoration.
- **Promote Collaboration and Teamwork:** Use group projects, problem-solving activities, and field trips to build social skills while reinforcing environmental education.
- **Connect with the Community:** Collaborate with local organizations, parks, and nature centres so that students learn from experts and contribute to community sustainability initiatives.

6. CONCLUSION

A growing body of research supports the positive impact of outdoor classrooms in environmental education. Using outdoor spaces as learning environments enhances student engagement, supports the development of pro-environmental attitudes and behaviours, fosters emotional connections to nature, and cultivates essential life skills. As educators continue to prioritize environmental education, outdoor classrooms should be considered a valuable method for instilling environmental awareness and responsibility in students.

Acknowledgments

The author thanks the researchers whose works have been cited in this paper.

Funding Information

This research has received no external funding.

Authors Contributions Statement

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Okah-Tim Elegant Joy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

C : **C**onceptualization
M : **M**ethodology
So : **So**ftware
Va : **Va**lidation
Fo : **Fo**rmal analysis
I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : Writing - **O**riginal Draft
E : Writing - Review & **E**diting
Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

Conflict of Interest Statement

No conflict of interest.

Informed Consent

Not Applicable.

Ethical Approval

Not Applicable.

Data Availability

This study draws on publicly available data. No new datasets were created.

REFERENCES

[1] D. Sobel, *Place-Based Education: Connecting Classrooms & Communities*. Great Barrington, MA, USA: The Orion Society, 2004.

[2] N. M. Wells and G. W. Evans, "Nearby nature: A buffer of life stress among rural children," *Environ. Behav.*, vol. 35, no. 3, pp. 311–330, 2003. doi.org/10.1177/0013916503035003001

[3] United Nations Environment Programme, "Environmental education," UNEP, Nairobi, Kenya, 2019. [Online]. Available: https://www.unep.org

[4] North American Association for Environmental Education, "What is environmental education?," NAAEE, Washington, DC, USA, 2021. [Online]. Available: https://naaee.org/about/what-environmental-education

[5] U.S. Environmental Protection Agency, "What is environmental education?," EPA, Washington, DC, USA, 2017. [Online]. Available: https://www.epa.gov/education

[6] UNESCO, *Education for Sustainable Development Goals: Learning Objectives*. Paris, France: UNESCO, 2017.

[7] S. C. Martin, "The influence of outdoor schoolyard experiences on students' environmental knowledge, attitudes, behaviors, and comfort levels," *J. Elem. Sci. Educ.*, vol. 15, no. 2, pp. 51–63, 2003. doi.org/10.1007/BF03173843

[8] R. D. Bixler, M. F. Floyd, and W. E. Hammitt, "Environmental socialization: Quantitative tests of the childhood play hypothesis," *Environ. Behav.*, vol. 34, no. 6, pp. 795–818, 2002. doi.org/10.1177/001391602237248

[9] F. X. Bogner, "The influence of short-term outdoor ecology education on long-term variables of environmental perspective," *J. Environ. Educ.*, vol. 29, no. 4, pp. 17–29, 1998. doi.org/10.1080/00958969809599124

[10] M. Rickinson, J. Dillon, K. Teamey, M. Morris, M. Y. Choi, D. Sanders, and P. Benefield, *A Review of Research on Outdoor Learning*. Shrewsbury, U.K.: Field Studies Council, 2004.

[11] L. Chawla, "Life paths into effective environmental action," *J. Environ. Educ.*, vol. 31, no. 1, pp. 15–26, 1999. doi.org/10.1080/00958969909598628

[12] J. E. Dyment, "Green school grounds as sites for outdoor learning: Barriers and opportunities," *Int. Res. Geogr. Environ. Educ.*, vol. 14, no. 1, pp. 28–45, 2005. doi.org/10.1080/09500790508668328

How to Cite: Okah-Tim Elegant Joy. (2024). Assessment of the impact of outdoor classrooms in environmental education in Nigeria. Journal of Environmental Impact and Management Policy (JEIMP), 4(1), 1–6. https://doi.org/10.55529/jeimp.41.1.7

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