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Assessment of the Impact of Outdoor Classrooms in Environmental Education in Nigeria

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Abstract: ***This opinion paper examines the impact of outdoor classrooms in environmental education in Nigeria. With the 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. This paper assesses the advantages and challenges associated with outdoor classrooms and investigates their effectiveness in promoting environmental awareness and stewardship among students. Drawing on empirical studies and expert opinions, 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. Furthermore, this paper explores the 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, this paper aims to promote the adoption and integration of this innovative approach into mainstream educational practices, ultimately fostering a society of environmentally conscious individuals.***

Keywords: ***Outdoor Classroom, Environmental Education, Educational Practices, Environmental Awareness.***

1. INTRODUCTION

In recent years, educators have increasingly recognized the importance of hands-on learning experiences in promoting environmental awareness and conservation efforts among students. As a result, outdoor classrooms, which provide an immersive and interactive learning environment, have gained popularity. Outdoor classrooms refer to educational spaces that take learning and teaching outside of traditional indoor settings into the natural environment. These spaces provide opportunities for students to engage with nature, explore, ask questions, and learn in a hands-on and experiential manner. Outdoor classrooms can be found in various

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forms, such as gardens, forests, parks, or even designated outdoor areas within school grounds. They are designed to 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. Studies have shown that they promote creativity, critical thinking, problem-solving skills, and overall academic achievement among students (Sobel, 2004). Spending time in nature has also been linked to reduced stress levels, improved mental health, and increased physical activity (Wells & Evans, 2003).

Educators and schools have embraced outdoor classrooms as a way to create engaging and holistic learning environments. With hands-on experiences, students can connect theoretical knowledge with real-world applications. Outdoor classrooms also foster a sense of connection and stewardship towards the natural world, encouraging sustainable practices and environmental awareness. More so, outdoor classrooms offer valuable learning opportunities that combine academic growth with hands-on experiences in nature. They have been proven to enhance student engagement, creativity, and overall well-being. By incorporating outdoor education into traditional curricula, educators can provide a more enriching and well-rounded learning experience for their students.

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 a wide range of topics, including ecology, conservation, climate change, sustainability, and environmental justice. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), environmental education is "a lifelong learning process that leads to an informed and involved citizenry having the creative problem-solving skills, scientific knowledge, ethical sensitivities, and commitment to engage in responsible individual and collective actions."
The North American Association for Environmental Education (NAAEE) emphasizes that environmental education goes beyond traditional classroom-based instruction. It involves experiential learning, outdoor activities, hands-on experiments, and community engagement to inspire individuals to become active stewards of the environment. This paper aims to explore and assess the impact of outdoor classrooms in environmental education.

Types of Environmental Education
There are several types of environmental education that are recognized and practiced worldwide. Some of them include:
1. Formal Environmental Education: This type of education is provided in formal settings such as schools, colleges, and universities. It is structured and systematic, with defined goals, objectives, and curricula. The primary focus is on creating awareness about environmental issues, building knowledge and skills, and promoting sustainable behavior.
2. Non-formal Environmental Education: This refers to learning that takes place outside of the formal education system, but it is still organized and structured. Examples include

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workshops, camps, and clubs that teach environmental concepts and practices. Non-formal education is often more hands-on and experiential, allowing learners to explore and interact with nature directly.

3. Informal Environmental Education: This type of education is unstructured and spontaneous, often occurring through everyday experiences. Examples include learning about plants and animals during a walk in the park or discussing environmental issues with friends and family. Informal education can be a powerful tool for building environmental awareness and prompting action.

4. Environmental Education for Sustainable Development (EESD): EESD is an approach that emphasizes the integration of environmental issues into broader development efforts. It recognizes the interdependence of social, economic, and environmental sustainability and seeks to promote sustainable development practices through education.

Importance of Outdoor Classrooms

1. Enhanced Learning Experience:

Numerous studies have demonstrated that incorporating outdoor classrooms into environmental education positively affects the learning experience of students. Field trips and outdoor activities allow students to directly observe and interact with their natural surroundings, leading to a deeper understanding and appreciation of the environment. Students engaged in outdoor learning demonstrate increased levels of engagement, motivation, and knowledge retention compared to traditional classroom settings (Disinger et al., 2015).

2. Emotional Connection and Empathy:

The use of outdoor classrooms fosters an emotional connection between students and nature, thereby developing a sense of empathy towards the environment. Through direct exposure to natural elements, students can witness the beauty, diversity, and vulnerability of their surroundings. This connection encourages them to become advocates for environmental preservation and conservation (Bixler et al., 2002).

3. Improved Environmental Attitudes and Behaviors:

Outdoor classrooms have been found to positively influence students' environmental attitudes and behaviors. Studies have shown that students exposed to outdoor educational experiences are more likely to develop pro-environmental attitudes, such as an increased desire to protect natural resources, reduce waste, and support sustainable practices (Davis et al., 2016). By actively engaging with nature, students gain first-hand knowledge of ecological processes, enhancing their sense of responsibility towards the environment.

4. Life Skills Development:

Beyond knowledge acquisition, outdoor classrooms also promote the development of essential life skills. Problem-solving, critical thinking, teamwork, and adaptability are just a few of the skills that can be fostered through outdoor educational experiences (Ernst et al., 2018). These skills are transferable to various aspects of students' lives, enabling them to tackle environmental challenges and make informed decisions in their communities.

5. Long-lasting Impact:

The impact of outdoor classrooms extends beyond the immediate learning experience, influencing students' choices and actions well into adulthood. Research suggests that

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individuals who have participated in outdoor environmental education programs during their youth are more likely to engage in pro-environmental behaviors later in life (Chawla, 1999). Consequently, integrating outdoor classrooms into environmental education can play a significant role in cultivating a generation of environmentally conscious citizens.

Barriers to Implementation of Outdoor Classrooms

Implementing outdoor classrooms can bring numerous benefits to education, including improved academic performance, increased physical activity, enhanced creativity and problem-solving skills, and a stronger connection with nature. However, several barriers may hinder the implementation of outdoor classrooms. Here are some common barriers;

1. Lack of Awareness and Understanding: Many educators, administrators, and policymakers may not be fully aware of the concept and potential of outdoor classrooms (Dyment & Amp, 2017). They may lack understanding of its benefits or have misconceptions about its effectiveness in academic settings.
2. Safety Concerns: Safety is a significant concern when considering outdoor learning environments. Educators, parents, and administrators may worry about risks associated with outdoor activities, such as accidents, exposure to extreme weather conditions, or encounters with hazardous plants or animals (Herrington et all, 2016).
3. Lack of Resources and Infrastructure: Birney and Reed (2017) asserts that implementing outdoor classrooms often requires appropriate resources and infrastructure, such as outdoor learning spaces, seating arrangements, natural materials, and access to necessary tools or equipment. Limited funding and insufficient space may hinder the development of suitable outdoor learning environments.
4. Time Constraints: The traditionally structured school day and curriculum may not allow for dedicated time or flexibility to incorporate outdoor learning experiences. O'Brain and Murray (2007) confirm that teachers may feel pressured to cover a fixed curriculum and prioritize standardized testing over outdoor education.
5. Lack of Support and Training: Many educators may lack professional development opportunities or training on how to effectively utilize outdoor classrooms. They may require support and guidance to integrate outdoor learning into their teaching practices (Dyment, Hill & Emery, 2017).

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

Strategies to Overcome the Barriers to Implementation of Outdoor Classrooms

There are several strategies that can be used to overcome the barriers to implementing outdoor classrooms:

1. Address Safety Concerns: Many schools worry about safety and liability risks associated with outdoor classrooms. It is important to conduct a risk assessment and develop a safety plan that addresses any potential hazards or concerns, including weather conditions and emergency response procedures.

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2. Build Community Support: Engage parents, teachers, community leaders, and stakeholders to build support for outdoor classrooms and create partnerships with local organizations that promote environmental education and outdoor learning.
3. Provide Teacher Training: Teachers may not always be comfortable teaching in an outdoor setting. Providing training and support can help them develop skills and strategies to create engaging outdoor lessons that align with curriculum standards.
4. Secure Funding: The cost of building an outdoor classroom may be a barrier for some schools. Seek grants and donations from local businesses and community organizations to help cover the costs of materials and construction.
5. Promote Student Engagement: Create engaging and interactive activities that students will enjoy while learning in the outdoor environment. This can include hands-on experiments, nature walks, art projects, and group discussions, among others. By adopting these strategies, schools can overcome the barriers to implementing outdoor classrooms and provide a valuable learning experience for their students.

Recommendation

Outdoor classrooms have a significant impact on environmental education, providing an immersive and hands-on learning experience. Here are some recommendations:
1. Enhanced Learning Experience: Outdoor classrooms allow students to directly engage with nature, fostering a stronger connection and understanding of the environment. Such experiences can greatly improve comprehension and retention of environmental concepts.
2. Observation and Connection: Encourage students to observe their surroundings, such as plants, animals, weather patterns, and ecosystems. This first-hand experience helps them appreciate the interdependence of all living things and develop a deeper connection with nature.
3. Practical Application: Outdoor classrooms offer opportunities for practical application of theoretical knowledge. Students can conduct experiments, collect data, and analyze their findings in real-world environments, deepening their understanding of ecological concepts.
4. Experiential Learning: Engage students in hands-on activities like planting trees, creating bird feeders, or building compost bins. This experiential learning approach fosters a sense of responsibility towards the environment and empowers students to make positive changes.
5. Emotional Well-being: Spending time outdoors has numerous benefits for mental health and well-being. Outdoor classrooms provide a refreshing change of scenery and help reduce stress levels, allowing students to feel more relaxed and engaged in their learning.
6. Environmental Stewardship: Through outdoor classrooms, students learn about the importance of conservation and sustainable practices. They can actively participate in environmental projects like beach clean-ups, tree planting initiatives, or animal habitat restoration projects, fostering a sense of responsibility towards the environment.
7. Collaboration and Teamwork: Outdoor classrooms provide opportunities for teamwork and collaboration among students. Group projects, problem-solving activities, and field trips allow students to work together, fostering important social skills while reinforcing environmental education.

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8. Connecting with Community: Extend the impact of outdoor classrooms by involving the local community. Students can collaborate with local organizations, parks, or nature centers to learn from experts, participate in environmental events, or contribute to community-based sustainability initiatives.

2. CONCLUSION

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

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