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Environmental Education and Sustainability Awareness

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Abstract

Young people who are empowered and conscious of the environment have the potential to be the biggest change agents for the long-term preservation and management of the environment. Therefore, environmental education that encourages such a shift will provide these young people a stronger voice on environmental problem if it is successfully applied in Nigeria. For this reason, the purpose of this study was to evaluate the environmental knowledge and attitudes of the pupils. 130 full-time environmental education students at a federal institution in Edo State, Nigeria, participated in the study. The findings showed that pupils had a high degree of knowledge and a favorable attitude toward the environment. Additionally, it was shown that there is either no relationship at all, a negative relationship, or little relationship between their knowledge and attitude toward the environment. As a result, it was determined that students who possess environmental literacy, particularly those at postsecondary institutions, are being developed to support EE in Nigeria. In order to ensure effective implementation, the researchers advise that more work be done to promote and encourage EE at all levels of the nation, particularly by the government and its agencies. International organizations as well as non-governmental organizations have a role to play in advancing the nation's sustainable development goals.

Keywords

Environment, Education, Knowledge, Learning.

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Environmental Education and Sustainability Awareness

1. Introduction

“Environmental education is a learning process that fosters attitudes, motivations, and commitments to make informed decisions and take responsible action, as well as increases people’s knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges.” Tbilisi Declaration, 1978.

“Environmental education is a way of implementing the goals of environmental protection. It is not a separate branch of science but a lifelong interdisciplinary field of study”, states UNESCO. This definition includes education for the purpose of protecting and enhancing the environment as well as education as a tool for community development aimed at raising standards of living.

2. The Purpose of Environmental Education

In general, environmental education has wide-ranging goals. Through environmental education, people are provided with systematic knowledge about the care that should be done in the explanation and usage of natural resources for the development and progress of mankind. Teaching people the values necessary for the preservation and wise use of the earth’s resources for human survival is the main goal of environmental education. Education on the environment provides the necessary skills and information to appreciate the significance of such significant viewpoints.

When it comes to understanding the need of preserving a harmonious and balanced interaction between humans and the natural world, environmental education plays a significant role.

The following are some of the overall goals of environmental education:

- ▶ To increase pupils’ awareness of the environment and the range of issues it faces.
- ▶ To assist the pupils in understanding how the environment and humans are intertwined.

- ▶ To educate the kids on the social rules that maintain harmony with the surrounding environment.
- ▶ To instill in the students a favorable attitude toward their surroundings.
- ▶ To acquire the necessary skills for achieving the objectives of educational assessments and environmental education.
- ▶ To assist the pupils in understanding the significance of adopting appropriate measures to address environmental issues.
- ▶ To instill in the pupils the necessary interest to recognize environmental issues so they will be motivated to work toward finding solutions.
- ▶ To set up suitable circumstances so that students can take part in the environmental decision-making process.
- ▶ To improve one's capacity for applying knowledge to achieve necessary goals and to recognize and address environmental issues through social, political, cultural, and educational channels.
- ▶ To educate the public about the environment's physical components.

To supplement the above purpose of environmental education, we also have Ecology Education with the following objectives:

- ▶ To impart the information required to cultivate a sense of responsibility toward the environment and the wise use of its resources to graduates in a range of professional sectors and various groups of people.
- ▶ To apply these abilities and knowledge to protect, conserve, and use the environment in a way that benefits both the current and future generations.

3. The Importance and Necessity of Environmental Education

The following sums up the justification for environmental education:

- ▶ Essential elements of environmental education include knowledge of the changes that have affected the land, water, weather, vegetation, social, cultural, and political environ-

ments. As such, the general public needs to be prepared with all of these in order to address environmental issues.

- ▶▶ Utilizing land, water, forests, and other mineral resources is the main aspect of the rural economy, with agriculture serving as its engine. The environment is affected by the unchecked and inappropriate use of these resources, which leads to a reduction in living standards, hunger, forced migration, and suffering among people.
- ▶▶ Therefore, environmental education is essential to raise awareness of the causes and effects of these issues, including pollution, the scarcity of food and water, the occurrence of epidemics, and natural disasters like floods, erosion, and desertification, as well as how to prevent them.
- ▶▶ To promote understanding and cooperation between nations, environmental education is essential.
- ▶▶ Both the local population and the government should benefit from public education about how local policies affect the environment.
- ▶▶ Environmental education must include knowledge of such global environmental issues, which the average citizen should be familiar with.
- ▶▶ Environmental education promotes women's and children's overall social and economic liberation. These make up a sizable portion of the natural resources used, particularly in rural areas.

Being aware of the importance and necessity of environment is crucial for:

- ▶▶ Preservation of the atmosphere.
- ▶▶ Preservation of the land's resources.
- ▶▶ Preservation of the biological atmosphere.
- ▶▶ Environmentally responsible handling of hazardous waste and biotechnology.
- ▶▶ Preventing illegal trafficking of trash and dangerous materials.
- ▶▶ Elimination of poverty and halting environmental degradation will improve living and working conditions for the impoverished.

4. Essential Elements of Environmental Education

The goal of environmental education is to make evident the interconnection of the modern world's economy, society, politics, and environment—a world in which the decisions and deeds of one nation can have an impact on other nations. In this view, environmental education ought to support the growth of a feeling of solidarity and accountability among nations and areas. Examples of environmental education include: Environmental education components serve as the cornerstone of a new global order that will ensure environmental progress and conservation. Gaining an understanding of the complexity of both the natural and built environments by individuals and communities is the primary goal of grassroots environmental education. Additionally, to get the information, morals, values, and practical skills necessary to take part in environmental quality management and social problem resolution in a responsible and productive manner. Consequently, essential elements for environmental education's constituent parts are as follows:

- ▶ Understanding and awareness.
- ▶ Viewpoint.
- ▶ Building capacities and abilities.
- ▶ Assessment.
- ▶ Taking part.

The essential elements of environmental education can also be summarized as follows:

- ▶ Think about the constructed and natural environments, as well as the social and technical structures.
- ▶ Environmental education should be viewed as an ongoing, life-saving endeavor.
- ▶ An integrated approach is required for environmental education.
- ▶ Analyze important environmental concerns from regional, national, and global perspectives.
- ▶ The focus of environmental education should be on both possible and existing environmental conditions.
- ▶ Encourage the principles and need for regional, national, and worldwide collaboration in the mitigation and resolution of environmental issues.

- ▶ Give careful thought to the environmental effects of your development and expansion plan.
- ▶ Give students more influence over decisions they make about their surroundings and encourage them to take accountability.

5. Scope of Environmental Education

All areas of environmental science are included in the scope of environmental education and awareness programs or environmental extension services. This includes how man has affected the environment, devastating and polluting it, but more significantly, how man can protect himself from the issues he has brought about by abusing, misusing, and overusing the resources that nature has provided. Understanding the underlying causes of environmental deterioration is just as important to include in environmental education as the effects of it. Examining the social and economic elements that exacerbate environmental deterioration should be part of these as well.

One way to characterize the scope of environmental education is:

- ▶ Instruction from the surroundings.
- ▶ Teaching about the environment.
- ▶ Education for the environment.

Learning from the environment entails gaining knowledge from our surrounds. This involves the importance of maintaining the environment's aesthetic qualities. Studying our surroundings to understand its elements, functions, and utility is a key component of environmental education. Since we need to learn about the environment in order to make it, this is a crucial part of environmental education. Through environmental education, we may learn how to protect the environment and maximize its benefits for both the current and future generations. This is the environmental education component related to conservation.

6. The Tenets of Environmental Education

As per the Tbilisi Conference (1977), the tenets of environmental education are as follows:

- ▶ Think about the environment as a whole, including the natural, man-made, artificial, and technological aspects as well as the social (historical, political, moral, cultural, and artistic).

- ▶ Think of environment education as an ongoing, lifelong process that extends from early childhood education to all higher education settings, both formal and informal.
- ▶ Adopt an interdisciplinary strategy to enable a comprehensive and well-rounded viewpoint.
- ▶ Adopt a community-based approach and prioritize active engagement in order to prevent environmental issues and identify solutions.
- ▶ Examine the main environmental issues from a global and regional perspective, that is, from the perspectives of the local, national, regional, and global levels.

7. Programs for Environmental Education

Newman (1981) developed a three-tiered classification scheme for environmental education programs based on distinct disciplines:

- ▶ **Environmental studies** : They address environmental disturbance issues and how to lessen their effects by modifying society (social sciences).
- ▶ **Environmental sciences** : The study of processes in water, air, soil, and organisms that cause pollution or environmental degradation is known as environmental sciences. It also aims to identify scientific methods for setting standards that are acceptable in terms of cleanliness, safety, and health for the natural ecosystem and the organisms that inhabit it (physical and natural sciences).
- ▶ **Environmental engineering** : Environmental engineering is the study of technological methods used to reduce pollution and the evaluation of how these methods affect the environment (engineering sciences).

8. Environmental Education-related Organizations

Various Environmental Education-related Organizations are depicted in the following table:

Name of Organization	Brief Introduction of the Organization
Earthscan	Originally established by UNEP in 1976, it commissions unique essays about environmental issues.

Convention on International Trade in Endangered Species (CITES)	It is a multilateral convention to save animals and plants that are threatened. The convention took effect on July 1st, 1975, after it was opened in 1973. The Indian Ministry of Environment and Forests serves as the central body for involvement in international accords.
Human Exposure Assessment Location (HEAL)	The three components of the project are global food contamination monitoring, water quality monitoring, and air quality monitoring. It is a part of the WHO's Health Related Monitoring Programme in collaboration with UNEP.
International Council of Scientific Unions (ICSU)	A non-governmental organization based in Paris promotes scientific knowledge sharing, launches initiatives that call for worldwide scientific collaboration, and conducts research and publishes papers on issues concerning social and political obligations towards the scientific community.
International Union for Conservation of Nature and Natural Resources (IUCN/WCU)	A 1948-founded autonomous organization with its headquarters located in Morges, Switzerland, that initiates and supports conservation efforts with a scientific foundation. Currently going by the name World Conservation Union (WCU).
International Marine Consultative Organization (IMCO)	From the perspective of marine water pollution, it governs how ships operate on the open ocean.
Man and Biosphere Programme (MAB)	The International Biological Programme produced this result (IBP). UNESCO originally introduced MAB in 1971. This program consists of 14 project areas.
Project Earth	Created in partnership with UNEP to pique curiosity and inform youth globally about the vital concerns affecting the environment on Earth.
Convention on Biological Diversity (CBD)	Three key objectives of the 1992 multinational convention are the preservation of biological variety, sustainable use of its constituent parts, and just and equitable distribution of the advantages derived from genetic resources.

9. Offering Environmental Education at Various Formal Education Levels

Various formal education levels for offering environmental education are as follows:

Level	Objective
Elementary Instruction	Environmental awareness; knowledge
Secondary Instruction	Pertinence to actual environmental circumstances; comprehension
Advanced Secondary Education	Preservation of the environment's natural resources; expertise
Education at College and University	Sustainable growth through addressing environmental, attitude, and evaluation issues.

10. The Intended Audience for Environmental Education

The following three audience categories have been determined for environmental education and awareness:

- ▶ **General Public** : Environmental education should be made available to the general public at all age groups, formal education levels for students and teachers, and informal education levels for adults, youth, and individuals with disabilities. Programs for environmental education are necessary to raise public knowledge of the risks to which it may be exposed as well as the state of its own surroundings. The general public, in particular non-governmental groups, should take part in the broad public education.
- ▶ **Particular Social or Occupational Groups** : These people have a significant impact on the environment by their actions and influence. These comprise industrialists, trade unionists, policy makers, architects, engineers, planners, and administrators.
- ▶ **Some Scientists and Professionals** : These groups consist of professionals who focus on particular environmental issues, such as ecologists, hydrologists, taxonomists, sanitary engineers, and biologists.

11. Importance of Teaching about the Environment

Climate crisis, environmental degradation and bio-diversity are existential threats to children's ability to survive and thrive, and

negatively affect access to water, sanitation and hygiene services. This emphasizes the need for teaching about the environment, which may be enumerated as follows:

- ▶ Inspires people to have reverence for the planet and all living things.
- ▶ Develops critical thinking
- ▶ Encourages leading a healthful life
- ▶ Instills a worry about the environment's gradual change
- ▶ Restoring the Natural Balance

12. Barriers to the Adoption of Environmental Education

As a result of the increasing awareness of the masses, awareness of environmental problems has increased. In addition, the connection between people and the environment has been interrupted due to reasons such as population growth and urbanization. Despite the recognition of its current benefits, there are many barriers to integrating environmental education into educational settings in recent years. The major barriers to the adoption of environmental education are as follows:

- ▶ Hard Specialization.
- ▶ Complexity of environmental education's cross-disciplinary value.
- ▶ High student-teacher ratio for planning programs that involve student participation.
- ▶ Lack of competent, experienced environmental educators.
- ▶ Inadequate supplies, including tools, extra materials, and reference materials.
- ▶ Inclination to oppose changes.

13. Conclusion

The field of environmental education is ever-changing. Such education's top goal is to cultivate a wary mindset in people regarding their entire environment. Its primary responsibility is to provide the necessary education and training to address the many environmental issues in a methodical manner. Encouraging people to live healthy, fulfilling lives requires preventing negative impacts on human health and environmental harm from things like soil, water, and air pollution, vibration, noise, and unpleasant odors.

Through the methodology of environmental education, individuals gain knowledge of their surroundings and acquire skills, values, experiences, and enthusiasm that will empower them. to handle both individual and group actions while attending to current and upcoming environmental challenges. It is the study of how human and natural systems interact with one another. A thorough lifetime education that adapts to the continually changing world should include environmental education. Through knowledge of the main issues facing the modern world and the provision of the abilities and qualities required to contribute positively to enhancing life and preserving the environment while paying appropriate attention to moral principles, it should equip the student for life.

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