

ENVIRONMENTAL ADULT EDUCATION (EAE) AS A TOOL FOR PROMOTING ENVIRONMENTAL STEWARDSHIP PRACTICES IN NIGERIA

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ABSTRACT: *The paper focused on the use of environmental adult education in promoting environmental stewardship practices in Nigeria. Environmental Adult education is an educational process that has the target to impart on adult members of the society elements of knowledge of environmental concepts and systems, relevant skills to identify and resolve environmental issues and manage environmental resources, right attitude and behaviour to relate responsibly with the environment and the motivation to act for the health of both the environment and those that live in it. An environmental steward operates the elements inherent in environmental adult education and is deemed to be one who as a result of the awareness, knowledge, skills, good behaviour and attitude he has acquired is moved to act to protect, conserve, improve and restore environmental resources for environmental sustainability. The goals and objectives of environmental adult education were examined to indicate its' efficacy in the development of environmental stewards.*

KEY WORDS: environmental adult education, environmental stewardship, adult education

INTRODUCTION

In recent years, multiple expansions of built up environment ensuing from development in science and technology have increased pressures on the natural environment. These pressures have adverse effects resulting but not limited to environmental problems or conditions like climate change and global warming, pollution, desertification, flooding, deforestation, loss of plants and animal species, and ecosystem imbalance. These adverse environmental conditions gave rise to various global meetings and conferences that came up with the findings that environmental degradation and its impacts on the environment can only be effectively addressed by educating the citizenry (young and adult) on knowledge of environmental concepts, issues and problems affecting the environment, skills to identify and resolve environmental problems, right attitudes and behaviour to improve and maintain environmental quality. Adults constitute the majority in the production process and they are closer to the environment than children and are hugely responsible for environmental degradation through their actions, activities and other manners of relationships with the environment. There is therefore the need to develop and convey right knowledge, skills and behaviour for proper use, management and maintenance of environmental resources (Eheazu, 2016, 2004; Mbalisi, 2013; Mbalisi & Nwoye, 2016; UNEP, 2017; UNESCO-UNEP,1988; 1972, 1976; UNESCO, 1992; Apel & Camozzi, 1996).

Nzeneri (1996) defines an adult as an individual who is matured physically and psychologically and is socially, economically and politically responsible. An adult learner is therefore one who is matured physically and psychologically, fulfills economic, social and political responsibilities in the bid to effectively perform his roles through various activities with intention to meet his needs and that of other members of the society. An adult learner can be described as that individual who willingly present himself for impartation of relevant knowledge of environmental concepts and how it works, skills to identify and resolve environmental issues, attitudes to have better relationship with the environment and right behaviour towards the environment for improvement of the quality of life and environment.

Environmental adult education (EAE) has been acknowledged as an effective means for resolving and confronting environmental challenges. Environmental adult education is critical for bringing transformation and change by creating awareness, enhancing values, changing attitudes and improving skills for the actualization of environmental sustainability. (United Nations Environment Programme (UNEP, 2017). Environmental adult education is that process of impartation of skills, knowledge, attitudes and competences relating to the environment upon adult members of the society, with the view to helping them meet up their own roles and responsibilities pertaining to their surroundings.

Environmental Adult Education (EAE) is an aspect of environmental education that is lifelong in process and adopts the principles and methods of adult education to create awareness of the environment, its problems/issues and impart relevant knowledge, skills and develop in individuals, appropriate attitudes and behaviours that enable participations in efforts to restore, improve and maintain quality of life and environment (Mbalisi, 2010). Environmental adult education (EAE) is studied in the context of adult education through various forms- non-formal, formal and informal. These forms of education complement and extend formal educational learning opportunities to those whose schooling were interrupted by social, political and economic disturbances like societal ills, war and poverty among others. According to Coyle (2005), the mandates for educating adults on environmental efforts are to impart requisite knowledge, skills, attitudes, values, experiences that instill determination to participate in the resolution of environmental problems /issues and maintenance of its quality.

EAE has gone beyond creating awareness, imparting knowledge and disseminating information about the environment. The emphasis is on bringing about changes in behaviour and causing individuals to initiate actions, develop skills, create sense of commitment and stimulate individual and collective actions at personal, community and governmental levels. EAE ensures that the adult learner gets involved in and with the environment through building of individual and group capacities by exposing them to relevant knowledge, skills that enable informed actions. EAE considers opinions of adult individuals, problem solving skills are employed, efforts are result oriented and focused towards resolving environmental issues. In EAE, adult individuals are made to understand that their decisions and actions have direct consequences on the environment.

Adults in the bid to actualize dreams and aspirations, execute responsibilities and play worthwhile, expected and desirable roles in the society which prompt them to indulge in

activities that enable exploration and exploitation of the environment to harness natural and material resources needed for social and economic upliftment which most times have negative effects on the environment (Eheazu, 2016, 2013; Mbalisi, 2013; Ndulor, 2016).

Goals and Objectives of Environmental Adult Education

UNESCO-UNEP (1978) stated the goals for and objectives of environmental education in their conference final report. Oduro-Mensah (1992) is of the opinion that these goals and objectives are consistent with those of environmental education. The goals include:

- i. to foster clear awareness of, and concern about, economic, social, political and ecological, interdependence in the total environment;
- ii. Provide opportunities for individuals to acquire knowledge, values, attitudes;
- iii. skills to protect and improve the environment; and create new patterns of behavior favourable towards environmental sustainability, and;
- iv. commitment to participate in actions to resolve environmental issues and maintain its quality.

These goals stated by UNESCO-UNEP (1977) are set to sponsor awareness of the environment and concern about the impacts of economic, social and political actions on the environment, to build individual and group capacities to improve and protect the environment through provision of requisite knowledge, skills that promote good values and inspire confidence for behavioural and attitudinal change.

These goals are structured around five sets of specific objectives to make individuals and groups become aware of their environment, knowledge of how the environment works and problems and issues existing around, skills to identify and resolve environmental problems and maintain its quality, proper attitude towards the environment and the conviction and willingness to participate in efforts to resolve and maintain its quality.

The objectives set for EAE according to Oduro-Mensah (1992) is in line with the expectations of the Tbilisi declaration in UNESCO-UNEP (1977). These objectives include:

- i. To develop knowledge and understanding of the environment, the forces that contribute to its deterioration and how its quality could be maintained.
- ii. Identify specific chemical, biological, physical and psychological and socio-cultural characteristics inimical to the environment.
- iii. Develop skills for solving, developing and maintaining environmental quality.
- iv. Develop appropriate attitude and sense of responsibility to enable harmonious relationship with the environment.
- v. Develop appropriate curricular for environmental education and train personnel for the management of natural resources
- vi. Develop right values that will encourage culture that encourages environmental maintenance and beautification
- vii. Plan environmental programmes and mobilize individuals to participate in the protection of the environment and maintenance of its quality; and
- viii. Promote among adults the practice of sustainable development.

The goals of Environmental Adult Education as captured in the Tbilisi declaration (UNESCO-UNEP, 1977) include to create new patterns of behaviours among individuals, groups and societies that enhance quality of life and environment. Among these objectives of environmental adult education include to help individuals and groups develop appropriate attitudes through exposure to sets of appropriate values that build proper sensitivity and concern for the environment that in turn spurs motivations for active participation towards protection of environmental resources and improvement of its quality and resolution of environmental problems and issues. These goals and objectives as stated give the notion that exposure to environmental adult education efforts would develop requisite knowledge, skills, attitudes and proper behaviour that foster good relationship with the environment and actions toward resolution of environmental issues/ problems and management and maintenance of environmental resources which are embedded in, and offers the idea of environmental stewardship.

Environmental adult education (EAE) equips people with the knowledge, skills, and motivation to be stewards of the environment. EAE provides opportunities for people to:

- i. learn about the environment, including a focus on systems thinking and the role that humans play in affecting the environment;
- ii. examine and clarify their values about and attitudes toward the environment, including the natural world and the human-built environment;
- iii. build skills to address environmental and social issues; and
- iv. undertake behaviours that help protect the environment and work toward a more sustainable future.

Environmental Stewardship

Stewardship is hard to be pinned down with a single definition, the reason being that conceptualization of stewardship encompasses certain elements like attitudes, behaviour, and actions which vary in degrees to different people. These elements are also subject to change as individuals develop a growing awareness for their environment. The concept of environmental stewardship is defined as dealing with man's relation with land, animals and plants which grow upon it. The term has come to encompass the responsible care of land and resources, while recognizing that humans are a part of complex natural systems on earth and should embody right ethics that cares for the environment.

Environmental stewardship refers to the responsible use of natural resources in a way that takes full and balanced account of private and societal interest as well as the needs of the future generation and other species. Environmental stewardship is the act of protecting and conserving the natural environment in a responsible and sustainable manner. It is informed, responsible action / behaviour on behalf of the environment and future generation (Ontario Trillium Foundation, 2017; Association of Fish and Wildlife Agencies, 2008). Simply put, environmental stewardship means looking after environmental resources and the ecosystem for future generation of all creatures. Stewardship involves the responsible and informed use and protection of natural environment through conservation and sustainable practices. Environmental stewardship is the show of care for the enhancement of quality of life and environment. Environmental stewards are individuals or groups that conserve, manage, monitor, advocate for,

and educate about a wide range of quality of life issues including the environment and how to live sustainably (McMillen, Campbell, Svendson & Reynolds, 2016). Environmental adult education programmes address development of environmental stewardship practices by emphasizing that components or characteristics that make up various stewardship levels are enhanced in the adult learner. Hungerford and Volk (1990) linked responsible Environmental behaviours (REB) to environmental stewardship and identified variables/levels that are component parts that lead to environment stewardship as follows. These levels and their characteristics include:

- i. Entry-level characteristics include awareness, environmental sensitivity and attitudes;
- ii. Ownership level include characteristics knowledge, personal commitment; and
- iii. Empowerment level with intention to act, in-depth knowledge, skill development as its' characteristics

REB pertain to actual involvement of an individual in efforts to resolve environmental problems and issues through:

- i. Changing and adapting one's lifestyle to thorough environmentally friendly behaviours.
- ii. To encourage sound practices and policies through use of personal and interpersonal means to support environmentally friendly initiatives.

Additional determinants of REB include locus of control and assumption of personal responsibility. Locus of control is concerned with how individuals see their abilities to change environmental conditions through positive behaviour. Personal responsibility entails one taking it upon himself to act and change environmental situations. The work of environmental stewards includes to ensure the healthy existence of the ecosystem and sustainable relationship with the environment. Environmental problems are addressed in unique ways that enhance social, economic and environmental values of the community. This is done by managing the ecosystem, protecting it from harm and educating the people on how best to relate with the environment. The activities of environmental stewards' scale from local to global as their efforts are channeled towards resolving global environmental issues. Environmental stewardship programmes may focus on one or all of these broad aspects of EE, and they may focus on local community issues or global challenges. Audiences for stewardship activities vary. Families, for example, might volunteer at a community garden; younger ones might address commuter behaviour like indiscriminate refuse disposal to improve on the quality of life for community members, while also decreasing noise and air pollution around schools and residential areas; others might explore the environment to identify and care for the living things that share their environment. Adults may take an online course and other forms of adult and non-formal education programmes to better understand climate change and other adverse effects of man's unhealthy relationship with the environment.

Types of Environmental Stewards

Environmental stewards are broadly classified into two categories:

1. Resilience based stewards: these are environmental stewards who have direct contact with the environment and are focused on rendering assistance to the environment to enable it overcome problems caused by environmental degradation by managing and helping the environment absorb disturbances. The activities of resilience based stewards can manifest as

actions such as preparing sand bags to prevent erosion, cleaning of drains to prevent flooding and planting trees for preventing desertification among others.

2. Ecosystem based stewards: These are broad based environmental stewards that concern themselves with the entire ecosystem. The goal of the ecosystem steward is to create balance and ensure that all organisms receive attention and conducive environment that fosters growth and development in a sustained global environment.

There are three types of environmental stewards:

- i. Doers stewards: these are environmental stewards that are engaged as volunteers. They are on ground to carry out specific tasks in areas of monitoring and usage of environmental resources, its maintenance and management to ensure environmental balance;
- ii. Donors: these are sets of individuals and groups of environmental stewards that have the primary assignment of providing funds and rendering financial assistance required for maintenance of environmental balance; and
- iii. Practitioners: these are individuals, groups and agencies that mount pressure on the governments and policy formulators to tow the line for sound relationship with the environment and stir up and ensure sustainability in governmental programmes. Practitioner stewards work hand in hand with government and environmental agencies.

Environmental Stewardship Practices

In the view of Ardoin and Braus (2013) environmental stewardship can take many forms including active participation in programmes with an environmental focus, volunteering for projects or activities aimed at cleaning up or restoring the environment, raising awareness for environmental issues, or sponsoring programmes that achieve any or all of those. At individual level, all hands must be on deck to do their parts to protect the city's environmental assets by making choices that lead to a healthy and sustainable community. At the community level, stewardship initiatives bring together citizens interested in more active participation. Stewardship is the act of taking responsibility for the well-being of the environment and doing something to restore or protect that well-being. Organizing and participating in events, volunteering, or simply making a donation, are all ways of demonstrating to your community that you care about the state of the environment. By working together, we can enhance and maintain those things we value, leaving a legacy for future generations and building community pride. This new indicator was introduced to demonstrate the level of participation of community members in environmental stewardship programmes. Guimaraes and sato (2016) posited that environmental stewards are those individuals who take environmental action based on set of values and consistently go beyond regulations. They see it as their responsibility and a priority. They are not moved by financial gains. The actions they take concerning the environment are not guided by economic considerations.

Environmental stewards have high sensitivity towards the environment and are often involved in various aspects of environmental action not for financial profit but for the purpose of restoring, maintaining and improving environmental quality. Ardoin and Merrick (2013) identified the activities of environmental stewards to include simple tasks and activities like litter control, beautification undertakings, cleaning of drains, and community care of open spaces, parks, environmentally sensitive areas, tree planting among others. Stewards are also known for being

willing, ready and able to taking responsibilities for actions and behaviours that will enhance and promote environmental sustainability.

Environmental Adult Education and Environmental Stewardship

The main aim of environmental adult education is to create environmentally literate adult individuals. The characters of an environmentally literate individual include the ability to initiate and take action to resolve environmental problems and maintain its quality among others. This gives the notion of environmental stewardship. Very recently in the city of Port Harcourt in Rivers State of Nigeria, attention was drawn to the existence of black soot (carbon particulates) in the atmosphere. The slow response from the public, government and other agencies towards resolving this environmental issue leave less to be desired. This indicates poor attitude and behavior towards the environment arising from lack of knowledge and skills that can engender commitment to taking responsibility for the defence and protection of environmental quality, and therefore generate the need for environmental adult education.

Environmental education has been in the school system for over three decades, yet very few individuals assume responsibility of the maintenance and care for the environment because the focus of environmental education is to impart to the young ones through formal modes the required values for environmental sustainability. This approach is confronted with many shortcomings especially as the knowledge, skills and other components acquired are often stored away for future use. Environmental adult education is for adults whose activities impact on the environment for the management, maintenance and restoration of quality of life of both man and the environment. Is environmental adult education fulfilling its functions of raising adults with good show of concern over the environment?

It is the responsibility of those whose actions contribute to the degradation of natural environment to participate in actions to resolve and improve its quality through conservation practices, pollution prevention and reduction and protection of the ecosystem. By learning about environmental issues and deciding how to take positive action, adults can become stewards of the environment, as well as leaders within their communities. These actions not only decrease the impact communities have on the environment but also provide opportunities for adult learners to apply their environmental learning in real-world contexts, preparing them to become active and engaged citizens (Erhabor &Osayande 2017; Adehikan & Ihiegbulem, 2005; Eheazu, 2016).

Erhabor and Osayande (2017) explained environmental adult education as a branch of adult education that emphasizes on environmental issues. It combines environmental education contents and adult learning theories to provide worthwhile and meaningful educational experiences to learners with the aim of bringing about sincere changes in the conditions of the environment. EAE has the capacity to reduce environmental degradation to the minimum through impartation of sound knowledge base, right skills, attitude, behaviour and action. EAE is directed towards creating responsible environmental behaviour among adults. Adults who are responsible in their behaviour towards the environment are also environmentally literate and operate as environmental stewards.

Environmental Adult education exposes the adult individuals to knowledge, skills, behaviour, sensitivity and action contents inherent in environmental education. These contents enable one become informed in his decisions, attitudes and actions that are shown through the ways he relates with his environment. Stewardship requires the elements that are gained from environmental education contents and are expressed through actions, participation guided by sound choices and decisions required for maintenance and improvement of environmental quality. Environmental stewardship is indicated through:

- i. wise choices based on understanding the consequences to natural, human-made, and social environments;
- ii. Improving environmental conditions and the quality of life. when possible, not just complying with regulations;
- iii. Careful management of environmental resources and values through partnerships among public and private entities;
- iv. Attitude, ethics, and behaviour by individuals;
- v. Fulfilling responsibilities as trustees of the environment for succeeding generations, moving toward a cost-effective and environmentally sustainable future; and
- vi. Integrating environmental values in all decisions and actions.

CONCLUSION

Environmental Stewardship refers to actions by environmentally sensitive individuals to care, protect and maintain environmental quality and resources. The activities environmental stewards include recycling, conservation, regeneration, and restoration. Stewards take responsibility for their choices and have the mindset that responsibility for environmental quality should be shared by those whose actions affect the environment. Adults are hugely responsible for environmental degradation, as such environmental adult education targets to equip adult individuals with relevant elements that prepares them to meet the responsibility of protecting, restoring and maintaining environmental quality for present and future uses. Environmental adult education engenders participatory action for the resolution of environmental issues/problems and maintenance and improvement of quality of health of man and his environment. It is through stewardship activities that an individual can willingly participate to satisfy the urge and desire to restore and improve environmental quality. It is therefore important to note that the relevance of environmental adult education in the promotion of environmental stewardship cannot be overemphasized. The knowledge, skills, attitudes, behaviours and capacity to act which are the major elements of environmental stewardship are imparted upon the individual through environmental adult education.

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