

Adult Literacy Education: A Pivot for Environmental Sustainability

Anthony, Godwin Bullem and Omang, Theresa Nkim

Department of Continuing Education
and Development Studies

Faculty of Education

University of Calabar - Nigeria

Anthonygbullem@gmail.com

+1248037919172

Abstract

The issue of environmental sustainability has become topical in the world agenda because of man's nefarious activities that has seriously threatened the survival of the environment, thus the need to conserve it for the benefit of the present and future generation. Environmental sustainability cannot be achieved in an illiterate society. It has therefore become imperative for all adult population who interact more with the environment to become literate on the consequences of their action on the environment. This paper therefore examined the role played by literacy education in environmental sustainability. To achieve the above goal, background information on sustainability was given; thereafter the key concepts were defined. The paper further looked at the indicators of environmental sustainability, objectives of literacy education programmes. It also examined the role of literacy education and types of Adult literacy education. The paper x-rayed, the problems associated with the acquisition of literacy education and thereafter proffered solution for the problems. A conclusion was finally drawn and recommendations made among others that the government at all levels should take the responsibility of providing adequate funds for the smooth running of literacy education programmes in order to assist people gain knowledge that could assist them sustain their environment.

Keywords: Adult, illiteracy, literacy, education, environmental sustainability

Introduction

The environment today is facing a lot of crisis ranging from deforestation, flooding, erosion, oil spillage, pollution, population explosion, desertification, acid rain, over congestion of cities, global warming and climate change etc. These environmental hazard could have adverse consequences to man and the ecosystem ranging from loss of lives, environmental health hazards, poverty, decrease in food crops production etc. most of the causes of these degradation could be attributed to man's nefarious activities such as greed and excessive quest to acquire properties, development, industrialization civilization and urbanization.

It is worthy to note that with all these alarming environmental threat little has been done either to ameliorate or mitigate the problems. It is in light of the above that the issue of the fast degrading environment became a topical issue in the world agenda in 1972 when the United Nations Conference on the human environment held in Stockholm.

The concept of environmental sustainability emerged in recent years, following the growth in the worldwide concern for devastating ecological crisis and manmade disasters. It is a unifying approach to concern over the environment, economic development and the quality of life. The concept of environmental sustainability began to sink rook in the 1980's because of the gaps which sustained development created in ecological stability and popular livelihoods. It argueS that three priorities should be built in to any development policy viz: the maintenance of ecological process, the sustainable utilization of resources and the maintenance of genetic diversity (Anijah Obi, 2001).

It is however worthy of note that it is difficult to achieve environmental sustainability in an illiterate environment as illiteracy stunt growth and retard progress. It is a serious impediment to individual, national development, human liberation and freedom from exploitation and superstition. It is associated with underdevelopment

instability, low production, low income, poor health, high poverty and mortality rate (Nzeneri, 2010). Illiteracy no doubt is a dangerous cankerworm and a cancerous disease that has eaten deep into the fabric of our society and need to be eradicated or mitigated. To successfully and properly propagate the gospel of sustainability, we need to be literate. It is through literacy education that an individual can discover himself and become conscious of his/her activities that are inimical and dangerous to the sustenance of the environment. This becomes very imperative in the developing world like ours with a high percentage of the illiterate population. This paper, therefore, focuses attention on the role of literacy education in environmental sustainability.

The concept of illiteracy

Illiteracy refers to the quality or condition of being unable to read or write. It also refers to an adult with reading incapacity and a lack of knowledge of a subject matter and or error in speech or writing. Illiteracy according to Oyitso (2001) is the inability of a person to read, write and understand a simple written words or symbols in any language conveys no meaning and he she cannot use it any language conveys no meaning and he or she cannot use it in any form of communication. Illiteracy in the contemporary age cannot be limited to the inability to read write and count, but it is extended to cover the use of internet based gadgets, foreign languages, environmental challenges etc (Arikpo, 2017). Illiteracy is thus associated with underdevelopment, instability, low productivity and helps to stagnate both individual and national development.

The concept of literacy

Traditionally, literacy is sees as the ability to read and write. In the modern sense of it, literacy is define as the ability to use languages, computers, numbers, images, and other basic means to understand, communicate, gain useful knowledge, solve mathematical problems and use the dominant systems of a culture. A person who reside in a foreign country but is unable to read and write in the language of the host country would be regarded by the locals as illiterate.

UNESCO (2013) defines literacy as the ability to understand identity, create, communicate and compute using pointed and written materials associating varying context. It is a process by which one expand his/her knowledge of reading and writing in order to develop his/her thinking and learning for the purpose of understanding himself/herself and the world around him.

According to Ntia (2002) literacy is a code of visual representation of an aural/oral communication in a given language. Literacy is not naturally acquired as it is the case of language but has to be learnt in a school setting. The key to literacy, is reading development, a progression of skills which begins with the ability to understand spoken words and decode written words which culminates in the deep understanding of a text. The concept literacy is usually associated with the positive aspects of human civilization while illiteracy is linked with poverty and underdevelopment.

The concept of literacy education

Literacy education is viewed as the second chance in basic education which is mean to improve both the young people and adults standard of life and upgrade their basic skills to enable them contribute in the sustainable development of their societies (Hammoud, 2006). Literacy education is the key to the development of any nation. It goes beyond the ability to only assist people to read and write but encompasses the ability to acquire language and computer skills and other skills needed to cope in modern society and fully participate in all aspects of life. Literacy education assists participants fully in their community and the wide society.

The concept Adult literacy education: Adult literacy education is on aspect Adult education that assists adults to become literate and obtain the knowledge skills and competencies necessary for employment and self sufficiency. It could also be seen as that aspect of education that help adults to acquire skills of reading, writing and computation in order to enable them become full partners in their education and that of their children.

The concept of environmental sustainability

The concept of sustainability emerged during the late 1980s as a unifying approach to concern over the environment, economic development and quality of life. It refers to the need to develop the sustainable models necessary for both the human race, and planet earth to survive. It implies creating a world where everyone can have fulfilling lives and enjoy a rich level of wellbeing within the hints of what nature can provide (Anthony, Essien and Obi-Bessong, 2016). Environmental sustainability implies an attempt to merge ecology and economy into one system. It means the ability to live within the resources of the planet without damaging the environment now or in future. The concept further stressed the need to renew the resources at a rate equal or greater than the rate at which they are consumed. It is a long term view of how our actions affect the future generations and making sure that we do not deplete resources or cause pollution at the rate faster than the earth is able to renew them.

The concept of environmental sustainability refers to a state in which the demands place on the environment can be met without reducing it's capacity to allow all people to live well now and in future. It stress on the need for man to meet his needs without jeopardizing the ability of future generation to meet their needs. The concept is based on the conviction that we can use the resource of the earth for our maximum satisfaction while at the same time ensuring that the future need of man are met (Anthony, 2002).

According to Anthony, Essien and Beshel (2017) the aim of environmental sustainability include:

1. Improving the overall quantity of life not just increasing the Gross Domestic Product (GDP) of the nation.
2. Promoting an environmental sound society that does not permit damage to the ecosystem nor does it squander scarce resources.

The concept of environmental sustainability grew out of the global discussion on the link between economic growth and development during the second half of the 20th century. The concept is opposed to

a development where there is an increase economic growth thereby increasing the Nation's Gross Domestic Products (GDP) without improving the quality of the environment.

Indicators of environmental sustainability

Anthony, Essien and Beshel (2016) maintain that for environmental sustainability to be achieved the following factors should be considered;

1. Non-renewable resources such as minerals oil, gas coal must be conserved or its depletion should be minimized.
2. The earth carrying capacity and vitality should be conserved.
3. The earth carrying capacity should be maintained.
4. People should re-examine their attitudes, perceptions, habits in order to enable them change their behaviours towards the environment.
5. The quality of human life should be improved.
6. Community care for the environment should be stimulated.
7. Development should not be at expense of other groups or later generation.
8. A global network for environmental sustainability should be development.
9. A national framework for integrating development and conservation should be provided.

Goals, objectives of literacy education

The goals and objectives of Adult literacy education according Duke and Hinzen (2006) include;

1. To help the individual read and write which is one of the human rights?
2. To change the quality of people lives by; helping them to overcome miseries, poverty and ill-health; to overcome malnutrition, HIV/AIDS and drug abuse; to live in peace and harmony with the environment.
3. To help transform the individual and the society at large to enable him/her live in the society that is culturally diverse; to enable him adopt better consumption pattern that are conducive to sustainability.

4. To help the individual understand himself and the society better by keeping him/her abreast with the latest trend: eradicate ignorance and keep him attuned with progress.
5. To help people weed out inequality, injustice, insecurity, unemployment, poverty and ecological imbalance.

According to Akpama (2017), literacy education aims at; improving nutrition and health, increasing productivity, reducing poverty, enhancing political participation, conscientizing the poor, empowering women and sensitizing the citizens/public on environmental protection.

Akinpelu (1990) outlined objectives of literacy education as follows;

1. To ensure access to information, knowledge and skills useful in everyday life.
2. To facilitate access to technological infrastructure and mass communication.
3. To facilitate communication between individuals and groups.
4. To enable people handle critical issues in a constructive manner.
5. To promote political participation and survival of democracy.
6. To help the individual have a feeling of self-sacrifice and personal security.
7. To help the individual have positive attitude toward himself and the environment.
8. To help an individual or group express themselves freely without interference of the third party.
9. To promote one's access to economic, political and social gains.

Ntia (2002) stress that literacy education aim at:

1. Increasing economic growth of an individual or group.
2. Improving political awareness of an individual and the nation.
3. Improving effective communication between individuals or groups.
4. Improving health care delivery.
5. Increasing community development

Types of literacy education programmes

There are various types of literacy which help us navigate life, engage in the protection and participate fully in the development of our environment and participate fully in the development of the human society. They include;

1. **Basic literacy education** – Basic literacy education programmes enables adults who may or may not have the opportunity of assessing formal education to be able to understand the problems of their immediate environment. It refers to the type of knowledge that is expected to be known by everyone in a particular field. Basic literacy helps the participant to participate more actively and effectively in the economic and social progress of their community. It helps people to know their right and obligations as citizens. It provides a platform for adult learners as it provides the minimum knowledge and skills essential for improving their standard of living (Sambwa and Chakanika, 2015).
2. **Functional literacy:** The is the type of adult literacy that combines reading, writing simple arithmetic and basic vocational skills directly linked to the occupational need of participants. It prepares an individual to engage in all sort of activities available in his or her group and community and also for enabling him or her to continue to use reading, writing and calculation for his/her own and community development. It entails the application of skills acquired by an individual to improve their lives and not just being able to read and write. Functional literacy is that kind of literacy that liberates learners from the culture of silence and free them in order to reach their full potential.
3. **Vocational literacy:** This is the type of adult literacy adult education programme that assist people to acquire the necessary skills and competence for occupation. It is the type of education that prepares learners for career development which are based on manual or practical activities. Vocational literacy education programme assist participants in their businesses and help to improve work place literacy and numeracy. Vocational literacy education programme assist participants or learners to

be self employed and helps in creating more employment opportunities for members of the society. Arikpo (2017) stressed that vocational skill development is an improvement of functional literacy skill development, just as functional literacy skills development was an improvement from basic literacy skills acquisition.

4. **Environment literacy:** Environmental literacy is that aspect of literacy education programme that equip the learners or participants with the knowledge, information skills and attitude that will enable them to sustainably manage the environment. Roth (2002) sees environmental literacy as a set of understanding skills attitude and habits of mind that empowers people to relate to their environment in a positive fashion and to take day-today and long term actions to maintain or restore sustainable relationship with other people or the biosphere. The goals of environmental literacy therefore are to equip adults with the knowledge skills and attitudes for the sustainable or judicious use of natural or man-made resources (Akpama, 2007). According to Eheazu (2016) the five attributes of an environmentally literate persons include; awareness, knowledge, attitudes, skills and action.
5. **Computer literacy** – This is a literacy programme which helps to enhance and maintain basic literacy information giving individuals sufficient computer skills and enabling them to handle different functions effectively in their daily lives. Computer literacy enhances chances of employability, income generation and thus facilitate poverty reduction among young adults.
6. **Conventional literacy:** This is a type of literacy that deals with reading and writing skills of letters in a particular language. It involves issues such as knowing the alphabets, phonetics, syntax, morphology, semantics and pragmatics that governs the reading and writing skills in a conventional manner (Mkandawire, 2015).
7. **Initial literacy:** This is literacy type that looks at the time or stage an individual learns or is expected to learn the basics or the process of acquiring basic skills in a particular field such as

reading and writing in a particular language. It is a critical foundation of conventional literacy.

8. **Emergent literacy:** This of literacy that deals with the earliest behaviours that relate to the kind of literacy in form of skills, knowledge and attitudes that are manifested before the actual conventional level of literacy is attained. It is concerned with the earliest phases of literacy development. It covers the period which a child born and when he read and write conventionally (Mkandawire, 2015).
9. **Critical literacy:** This is the type of literacy that involves interpreting an issue or phenomenon in order to take realistic decisions and actions. It equips learners and participants with knowledge and skills to be critical of what they see, hear, get and what they are asked to concede and then responses to the situations surrounding them. Critical literacy looks at the teaching of critical consciousness skills relating to an individual's ability to perceive social, political and economic oppression and to take action against the oppressive elements in the society (Freire, 1985)
10. **Survival literacy:** This is the type of literacy that involves teaching survival skills such as income generating skills to makes both an individual and the society to be economically independent and self sustaining.
11. **Ecological literacy:** This is the type literacy that helps an individual to understand the natural ecosystems that makes life on earth possible. It helps participants to know the natural factors such as water, trees, rocks, plants animals that support human life on earth.

There are other numerous literacy programmes. In fact every discipline has a literary programme. Akpama (2017) enumerated and discuss literacy, literacy by radio, health literacy, tourism literacy, family literacy and workplace literacy. Arikpo (2017) enumerated forms of literacy to include; traditional, formal, non formal and informal literacy education. Other literacy education programmes include: post-literacy, Neo-literacy, Aliteracy, professional, legal, medical, statistical, film, teaching workforce,

survival, business, street, scientific, agricultural, technological, transliteracy and magical literacy.

The role of literacy education in environmental sustainability

The role of Adult literacy education in environmental sustainability cannot be over emphasized. Eheazu (2016), stress that literacy education predisposes that learner towards development of positive attitudes to environmental studies and issues. He added that literacy education raises the consciousness of individuals about their environment especially in matters like resource conservation and aesthetic behaviour that encourages beautification of the environment. He further stressed that through literacy education the learner acquires skills to read and write about his/her environment. He stated that literacy encourages learners to adopt environmentally friendly approaches in the practice of their occupation/vocations. He concluded by advocating for the introduction of functional and adult literacy programmes biased towards ecological conservation and sustainable socio-economic development in order to realize the goals of preserving the environment.

According to Rani (2006) illiteracy makes one poor thus literacy should be concerned with the actual needs and requirements of people. He stressed that literacy education programmes should be able to change the quality of people's lives to overcome miseries, poverty, malnutrition and ill health in order to live in peace and harmony with the environment. He further stressed that we need literacy education in a transforming society in order to live as responsible citizens who will adopt better consumption pattern that may be conducive to sustain ability. He opined that literacy education should be designed in a way that it could be applied for sustainable development.

Ntia (2002) stressed that literacy and the illiterate persons must be aware of the rapid deterioration in our environment hence people must learn to prudently exploit environmental resources. As a nation our rich oil resources should not be recklessly exploited now but should be carefully handled in such a way that accruable profits are

channeled into investment that would continue to make the nation remains rich without utterly destroying the resource base.

There are a plethora of environmental issues that need urgent attention today. These include; pollution desertification and land degradation, erosion, flooding, ozone layer depletion, global warming, climate change, acid rain, deforestation, earth quakes, population explosion, biodiversity loss etc. with family and ecological literacy, people will be assisted to be conscious of the danger of destroying the environment. Family, ecological and environmental literacy will also help to create awareness of the public on negative effect of poaching, bush burning, unsustainable agricultural practices, over population and a myriad of other environmental issues. Anijah-obi (2001) is of the view that basic literacy or education is required while employing the community approach in the preservation of the environment. This according to her is very imperative since rural communities are still in need of environmental awareness in areas of both plant and animals. Environmental literacy will thus help people to use natural resources more effectively and sustainably as well as diversifying and reducing their dependence solely on natural resources for meeting their daily needs.

Anijah-obi (2001) lamented the alarming rate at which over environment is been degraded. She identified man as the critical agent in their depletion and whose life has ironically become endangered by his own action due to ignorance. She advocated for urgent need for radical change of attitude and complete transformation in the natural resources are exploited. It is worthy of note that this change can only be achieved through deliberate campaigns of public enlightenment, interaction and information exchange. Environmental literacy thus becomes a veritable tool that could help the individual appreciate and understand the existing and impending woes of environmental degradation.

Literacy education can provide the necessary knowledge for the interpretation of the complex phenomena that shape the environment as well as sustainably managing it. All human being are

in one way or the other involved in environmental issues. As individuals we are also affected in one way or the other on the impact of man's activities on the environment therefore we all have a stake in solving the problem. It is pertinent to note that an illiterate person is only a slave to the environment but cannot save the environment. For instance an illiterate farmer may not be conscious of the negative impact of the bush burning on the environment and a poacher may not be aware of the consequences of commercial hunting. It is based on the above that acquisition of mass, basic as well as critical literacy becomes very necessary since environmentally sound development requires environmentally literates persons who are engaged in production, consumption and policy formulation (Anthony 2004)

Environmental problems are basically caused by man thus they need for radical change of attitude and total transformation in our behavioural pattern about the environment and its resources. Most people believe that environmental resources are inexhaustible and since there are God given resources, they could last forever. Based on this erroneous conception they indulge in practice that result in issues such as deforestation, desertification, pollution, wildlife endangerment and extinction, erosions etc. through mass literacy as well critical literacy or consciousness raising literacy education programmes, people could become increasingly conscious of the need to care for the environment. These type of literacy education programmes will help to impart information and appropriate skills that will enable people to control and manage the environment.

It is not however enough to acquire literacy skills but we need to put the knowledge and skills acquired into practice if the environment must be sustainably managed. People therefore should be encouraged on how to grow more trees, check desertification/ desert encroachment, keep surrounding clean, check erosion, stop bush burning, stop killing of animals and practice agro-forestry. Through functional literacy, knowledge and skills acquired could be applied into concrete situations to improve the quality of the environment. Thus functional literacy is capable of engendering sustainable management of environmental resources.

Anthony and Essien (2018) maintain that literacy education could assist people to become aware of the negative changes currently taking place in the human environment. They further stressed that environmental literacy whether formal, informal, semi-formal or non formal serious implication in maintaining environmental quality. Literacy education, no doubt, opens our eyes and makes us become conscious of the negative impact of man's action on the environment. For instance, when an adult citizen becomes aware of the danger of improper waste disposal, he may carry out different waste management strategies to properly manage waste. With the acquisition of literacy education he could also assist in educating people within his neighbourhood on how to sustainably manage waste.

Rani (2006) is of the opinion that for sustainable development goals to be achieved literacy education should be able to assist people learn to know, learn to be, learn to leave together, learn to do, learn to light in lamps and to dispel the darkness of ignorance. Eheazu (2016) stressed that literacy education provides a pedestal for achieving personal good health and nutrition as well as general socio-economic development without literacy education, it will be difficult if not impossible to assert personal rights or seek improve quality of life. Today that emphasis is laid on environmental awareness, literacy, obviously becomes an inevitable partner to sustainable resource management. He added that there is no better avenue of creating awareness on the interaction between living organism and their surroundings than in adult literacy education programmes. He maintain that for functional literacy programme to make desirable contributions to environmental sustainability, it must recognize the illiterate adult as a member of the society whose socio-economic activities could make or mar the environment within which he lives and work.

According to Roth (1992) environmental literacy has the capacity to perceive and interpret the relatives health of environmental systems and take appropriate actions to maintain restore or improve the

health of those systems. He said environmental literacy should assist people to demonstrate in observable form what they have learned – their knowledge of key concepts, skills acquired and their disposition toward environmental issues.

Problems associated with the acquisition of adult literacy education

Despite the relevance of literacy education in sustainable development, a plethora of factors tends to impede its acquisition in developing countries such as Nigeria. Ntia (2002) attributes the challenges of acquiring literacy education to; the level of parental education; influence of the culture of the people; poor socio-economic status; government education policy; lack of publicity on the importance of education; geographical limitations and failure of educational products to have gainful employments

Anthony (2012) maintains that the problems hindering the acquisition of basic literacy education in Nigeria is poor funding. He decried that over the years adults and non formal education has been receiving very low priority in the overall scheme of resources allocated to the education sector. He stressed agrees that funding is the major factor hindering the acquisition of literacy education in developing countries. He is of the view that adult education generally is still treated as a supplement of the educational system. He enumerated some challenges of funding as follow: That funds provided by the local organizations are inadequate; that there is no mechanism for civil society organization (cso) to access funding from the government; that at the local level, the planning process tend to be political. He said that funding of literacy education has not featured prominently among the priorities for funding at the local government level.

Nzeneri (2010) lamented on the current problems facing literacy education in Nigeria. He enumerates the following factors as major impediment to the acquisition of literacy education:

1. Underfunding and late release of approved funds to the commission
2. Unwillingness of the state governments to make budgeting provision for literacy education

3. Indiscriminate transfer of teachers by the Local Government Education Authorities
4. Dearth of teachers in terms of quality and quantity.
5. Inadequate supervision and monitoring of schools or centres by both State and Local Inspectors and Supervisors.

Nzeneri (2010) further revealed that one of the major problem facing literacy education is that policies are made without commitment and political will to implement them. According to him the National Commission for Mass Literacy, Adult and Non-Formal Education in 2007 outlined the following as challenges facing the acquisition of literacy education.

1. Lack of political will and commitment meant for the promotion of Adult Education.
2. Inadequate policy framework, enabling environment and resources to run mass literacy
3. Inadequate infrastructure and appropriate learning centres
4. Ill-qualified and insufficient facilitators and personnel to manage the centres.
5. Inadequate publicity on the importance of mass literacy
6. Lack of incentive and consistent payment of stipends to facilitators.

Hammound (2006) stressed that inadequate financial resource and properly trained human resources are the major factors that impede the spread of literacy education for all. Other factors according to him include:

1. Unfavourable social attribute of some communities towards education
2. Predominant beliefs among the poor and the uneducated on the value of literacy education
3. Lack of infrastructure to reach Nomadic and rural communities
4. Lack of well defined policy regarding the use of existing traditional education institutions.
5. Natural and man-made disasters resulting in the destruction of properties and dislocation of people.

The way forward

It is pertinent to note that to be in the right track of sustaining the environment we need to be literate. Urgent steps should therefore be taken to fight against the forces that impede the acquisition of literacy education. Nzeneri (2010) postulates that to achieve literacy for all as enshrined in Nigerian National policy on education, the government should live up to expectation by providing adequate funding, adequately qualified personnel and adequate instructional materials. He further stressed on the need to raise the enthusiasm or motivational level of adult literacy agents and participants. He is of the opinion that if literacy instructors are properly and adequately remunerated, they will put their best in their work. In the area of resource utilization he said that, available scarce resources for adult education programme should be effectively and efficiently utilized.

It is also necessary to partner with donor agencies. To ensure the success of literacy education, regular training and retraining of adult literacy instructors and facilitators is needed to solve the problem of poor quality and unqualified literacy instructors. Arikpo (2017) suggest that to tackle the problem hindering the acquisition of literacy there is need to establish adult education institutes or centres for continuing education focused on training and mainstreaming literacy education for learners. He furthers stressed on the need for adult education providers like the state agency for adult education to be autonomous.

Anthony (2012) stressed on the need to increase, budgetary allocation for adult education in general, through special levies launching and institution of adult education foundations, He enjoined the government, corporate bodies, voluntary organization and individuals to be committed in the mobilization of necessary resources and setting up structure required for the delivery of literacy education.

Conclusion

The rate at which the environment is depleted today calls for serious concern. The contemporary environmental issues ranges from deforestation, desertification, erosion, flooding, population explosion, Acid rain, biodiversity loss, climate change, global warming etc. The

government at the international, regional and local level has made frantie effort to preserve and manage the environment for the benefit of the present and future generation. It however seems that the issues has not been completely addressed, as most adult who directly interact with the environment are still illiterate. It is therefore hope that if these adult acquire literacy education it will assist them to discover themselves and become conscious of their nefarious activities that are inimical to environmental sustainability.

Recommendations

The relevance of literacy education in the sustenance of the environment cannot be over emphasized. Therefore the government at all level should take the responsibility of providing adequate funds for the smooth running of literacy education programme. This could be achieved by increasing the budgetary allocation for literacy education. More so, the practitioners (instructors and facilitators) should be promptly and adequately motivated in order to rouse their moral and enthusiasm. Finally, donor agencies, the government, and individuals should ensure the success of literacy education by organizing regular training and retraining of adult literacy instructors and facilitators.

References

- Akinpelu, J. A. (1990). Adult literacy and National Development. *Literacies voices*, 1. (2).
- Akpama, S. I. (2017). *Fundamentals of adult basic education*. Calabar: University of Calabar press.
- Anijah-obi, F. N. (2001). *Fundamental of Environmental Education Management*. Calabar: University of Calabar press.
- Anijah –obi, F. N. (2001). *Environmental Protection and Management: Planning, process and Strategies*. Calabar: University of Calabar Press.
- Anthony, G. B. & Essien, C. K. (2018) Environmental Awareness creation through the mass media: an important tool in sustainable forest management in Ogoja local government area of cross river state, Nigeria. *A Journal of contemporary research*, (LWATI) 15, (4).

- Anthony, G. B. & Essien, C. K. (2018) Sustainable management of solid waste in Nigeria urban centres. *A journal of contemporary research (LWATI)* 15, (3).
- Anthony, G. B. & Essien, C. K. Beshel, C. A. (2017) Achieving sustainable Human Development through lifelong learning. *National Council for Adult Education Journal*. Benin city: NNCAE, 22, (1).
- Anthony, G. B. (2002). "Sustainable Development Through Environmental Adult Education". In Umoren, G. Ntia, N. U. & Biao, 1. (eds) *Readings in Adult Education*. Calabar: Glad Tidings press Ltd.
- Anthony, G. B. (2012). Strategies for funding adult basic education in Nigeria. *International Journal of Adult Education Lifelong Learning, (IJAELL)*, 1, (1).
- Anthony, G. B. Essien, C. K. & Obi-bessong, V. M. (2016) Environmental Non Governmental organization (ENGOS): A panacea for environmental sustainability in Nigeria. *Social in sight*. 10, (9).
- Arikpo, A. B. (2017) "Tackling illiteracy syndrome and a reflection on centuries old adult education strategies: any hope for cure?" An inaugural lecture presented at the University of Calabar, Nigeria.
- Duke, C. & Hinzen, H. (2006) Basic and Continuing Adult Education policies. *Journal of Adult Education and Development. Dvv*. Issues 30 - 36.
- Eheazu, B. A. (2016) *Fundamental of Environmental Adult Education*. Port Harcourt. University of Port Harcourt press.
- Eheazu, B. A. (2016). "Situational Challenges of Environmental degradation in Nigeria: Adult Education as a response valedictory lecture series at the University of Port Harcourt". No. 6.
- Freire, P. (1985) *Education for critical consciousness*. London: Sheed & Ward.
- Hammoud, H. R. (2006) Illiteracy in Arab world. *Journal of Adult Education and development dvv*. Issues 30 – 65.

- Mleandawire, S. B. (2015) Types of Literacy or Literacy's. The University of Zambia lecture Notes for week 2. Retrieved from <http://sotive> WordPress.com. 2015/12/14 types of literacy or literacies.
- Ntia, N. U. (2002) *Adult Basic Education for positive Behavior change among the literates*. Calabar: Temavic press & computers.
- Nzeneri, S. I. (2010) "Adults in battle: any hope of victory?" 71st Inaugural lecture of University of Port Harcourt Rivers State, Nigeria.
- Oyitso, M. (2001) "Literacy, Environment and community development". Paper presented at a workshop organized by the delta state local government service commission, Asala march 21st – 23rd.
- Rani, P. U. (2006) Adult Literacy and sustainable Development. *Journal of Adult Education and Development* dvv. Issues 30-36.
- Roth, C. E. (1992) *Environmental literacy: It Roots evolution and direction in the 1990s*. US Massachusetts: Epic clearing house for science, mathematics and environmental education (CSMEE).
- Roth, C. E. (2002) *A questioning framework for shaping environmental literacy*. Antioch New England Institute. US Earthlore Associate and centre for Environmental Education.
- Sumbwa, P. U. & Chakanika, W. W. (2015) Where are the men? These are the reasons there are not interested in Literacy. *Journal of Adult Education and Development*. Dvv international.
- UNESCO (2013) *Literacy and Non formal Education – Education sector Technical Notes*. Paris. UNESCO.