

CONTEXTUALISING THE INDICES OF ADULT EDUCATION FOR EFFECTIVE IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT GOALS IN DELTA STATE, NIGERIA

ATU ABANYE-ORUNWA SUNDAY

E-Mail: sunday.atu@unical.edu.ng

GSM: 08039219880

University of Delta, Agbor, Delta State

OBI WINIFRED CHIOMA

GSM: 08037088132

University of Port Harcourt

Abstract

Adult learning and education (ALE) provides a broad umbrella for improvement of humanity. Hence the study is focused on contextualizing the indices of Adult Education for effective implementation of 2030 sustainable community development agenda for poverty eradication in Nigeria. The scope of the study is Delta state, south – south Nigeria with four research questions to guide the study, which adopted descriptive survey design. The population of the study was 3,782 comprising of 52% male and 48% female respondent drawn from adult literacy centers across the state. The sample size was 378 using the Taro Yamen scientific method of sample selection, while purposive sampling technique was adopted for selection of six (6) LGA's representing three administrative zones in Delta State, Nigeria. The various communities were selected using random sampling technique. The instrument for data collection was structured questionnaire rated in modified likert scale of SA= 4, A= 3, D= 2, SD= 1, while mean and standard deviation was used to analyze the research question. The findings revealed among others that occupational education and rural cooperatives education is capable for effective implementation of 2030 sustainable agenda goal 1 (End poverty in all forms in Nigeria), through acquisition of skills for wealth creation, and poverty eradication, agricultural extension education practices and innovation for improvement in the living standard of the masses, (goal 2) etc. The study therefore recommend among others that Government and stakeholders in educations should assist in providing relevant facilities for Adult Learning education (ALE) in Nigeria.

Keywords: Adult Education and Sustainable Development Goals.

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Introduction

Adult learning and Education (ALE) provides the broad-based umbrella for improvement of humanity and the society at large.

Adult learning and education is primarily concerned with informal, formal and non-formal education with its strongholds in life-long learning with specific focus of liberating the individuals, communities and the society from the shackles of ignorance, illiteracy, poverty and timidity.

Nzeneri (2012) posted that Adult Education is an instrument for conscientization, self-adjustment, national development, as well as a tool for cultural awareness and integration which enhances conscientization and group dynamism for members of the society.

Adult learning education programmes are very complex and comprises of series of activities that is goal-oriented, coupled with methodology that will enhance human development

Lowe in Atu and Igbe (2015) noted that Adult Education programmes are seen by many developing nations as an instrument for promoting and regulating social change, rather their for consumption. Consequently adult learning programmes are numerous, depending on the needs of the Individual; Communities and the nation targeted at the uplifting the socio-economic and political needs of the people for reduction of poverty, promoting peace, improving healthcare delivering, fostering inclusive education and helping individual to adopt to the rapid change in society.

Adult learning and education (ALE) is an essential trigger for transforming learning opportunities for youth and adult illiterate in the state and Nigeria at large for sustainable development. (Radhika 2019).

In line with the agreement reached by various heads of state and government, as well as high representatives of nation, which meet in the United Nations headquarter, New York from 25th-27th September, 2015. An attempt to promote sustainable development across the world. The 2030 Agenda for Sustainable Development, which comprise of 17 goals were itemized, among which is:

- Goal 1: End poverty in all forms everywhere.
- Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
- Goal 3: Ensure healthy living and promote well-being for all at all ages.
- Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

The above is the focus of this study in Delta State, consequently, Adult learning programmes in the state and Nigeria at large has also suffered neglect and unsupported, particularly where some local government councils have shown little or no interest in funding, supporting or promoting adult-learning programmes (ALE), such that enhances socio-economic development in the state.

Therefore, this study is focused on contextualizing adult education indices, such as agricultural extension education, community empowerment education, occupational education and cooperative commerce education as an intervention programme for effective implementation of 2030 sustainable community development agenda (1-4) for poverty eradication and food security in Delta State, Nigeria.

Conceptual Clarification

It is imperative to make a clarification of some concept that are applied in the context of this study such as contain in the keywords.

Adult Learning and Education

Adult learning and education, simply implies all terms of Adult education that enhances socio-economic and political well-being and living standard of the masses, community and the state as a whole.

An adult learner can be defined in this context as anyone who consciously or unconsciously, formally, informally or non-formally engages him or herself in an adult educational

programmes with an intent to solve life problems. The adult learners may constitute individual persons who are desirous to improve themselves and their social, economic, political, intellectual and cultural well-being of their society. (Oloye and Onajite 2015). UNESCO (1973) in Atu and Igbe (2015) stated that adult education adopts the initial assumptions that education is life and not a mere preparation for an unknown kind of future living.

Adult education is set out to train, mobilize and educate the manpower which has not been utilized in order to make such manpower or human resources more productive and more useful both to self and the society.

In order to promote individual and societal development, adult learning entails offering chances for lifelong learning. According to Aljanabi et al. (2023), adult education is an essential instrument for building resilience and empowering communities. This is consistent with the findings of Richards et al. (2023), who highlight its contribution to poverty reduction and skill development.

Atu et al 2013 states that Adult education indices are numerous, however the focused in this study for effective implementation of 2030 Sustainable Community Development agenda for poverty eradication and food security in Delta state, Nigeria are;

Occupational Education and Cooperative/commerce education.

Agricultural extension education programmes

Education for health and family improvement programmes

Adult literacy and community improvement education.

Sustainable Community Development

The UNDP (2023) highlights the importance of participatory approaches in enabling communities to take ownership of development projects. Integrating social, environmental, and economic strategies to improve community resilience is known as sustainable community development. For example, combining community education with climate-resilient agricultural practices has been successful in poverty reduction initiatives (World Bank, 2023)

Poverty Eradication for Food Security

Food security and poverty eradication are related. Increasing agricultural productivity and developing sustainable revenue streams are essential tactics for accomplishing these objectives, according to Aljanabi and Younis (2023). Food insecurity and poverty can be considerably decreased by community-based initiatives that emphasize education, microfinance, and resource management, according to the World Bank (2023).

Sustainable Development and Adult Education

Adult education includes opportunities for lifelong learning that give people the values, knowledge, and abilities they need to change both personally and society as a whole. Incorporating sustainable development themes into adult education encourages awareness and action towards global issues like poverty and inequality, claim Bagnall and Hodge (2023). In a similar vein, community-based education models boost social cohesion and local economies, according to Torres and Monzó (2023). UNESCO (1973) in Atu and Igbe (2015)

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Sustainable Community Development is a planned implemented and maintained social, economic and environmental development that meet the needs of the present generations of community members and the anticipated needs of the future generations (Ojokheta2018).

The Importance of Lifelong Learning to the SDGs

As highlighted in the Sustainable Development Goals (SDGs), especially SDG 4, which advocates for inclusive and equitable quality education and opportunities for lifelong learning for all, the idea of lifelong learning is fundamental to sustainable development. Lifelong learning promotes resilience, adaptability, and active citizenship, empowering people to meet the demands of a world that is changing quickly, according to UNESCO (2023). Its importance goes beyond formal education to encompass community-based learning, skill development, and vocational training—all of which are essential for ending poverty and promoting sustainable development. Lifelong learning has the potential to close educational gaps in Nigeria, especially in underserved rural communities, enabling people to actively engage in social and economic change (Osakwe, 2023).

Global Advancements in Adult Education and Their Relevance to Nigeria

Innovative methods of adult education have shown great promise in combating inequality and poverty on a global scale. For example, underprivileged populations now have greater access to education in sub-Saharan Africa thanks to the adoption of digital learning platforms (Mwangi & Wanjiru, 2023). Similar to this, by giving adults marketable skills, vocational training programs in India have effectively decreased unemployment (Patel et al., 2022). Nigeria's adult learning strategies can benefit from these models, especially when it comes to incorporating technology and customising programs to meet local needs. According to Dede and Richards (2023), adult education programs in low-resource environments can benefit from blended learning models, which combine in-person instruction with digital resources.

Nigeria's Adult Education and Development Policy Frameworks

The significance of adult and non-formal education in accomplishing national development goals is emphasized in the National Policy on Education (2023). It highlights important priorities like community empowerment, job training, and literacy promotion. But policy implementation is still uneven, and progress is hampered by a lack of funding and a weak institutional framework (Aderinoye et al., 2022). A multisectoral strategy is needed to close these gaps, utilising collaborations between the public and private sectors as well as NGOs to improve adult education programs and bring them into line with international best practices.

Challenges of Adult Education in Nigeria

Research identifies several obstacles, including low literacy rates, gender inequalities, and insufficient infrastructure. Aderinoye et al. (2022) point out that rural women and marginalized communities often face exclusion from adult education programs, which worsens poverty cycles. Additionally, fragmented policies and lack of adequate funding impede the growth of the sector (Osakwe, 2023).

Theoretical framework

The study is anchored on conscientization theory. Conscientization theory was propounded by Paulo Freire in his famous book titled; *Pedagogy of the oppressed* “published in 1970. Conscientization according to Paulo Freire is the use of education as a means of shaping the life of an individual and the society in a particular or desirable way. Paulo’s critical conscientization theory has wide application in formal, informal, non-formal as emboldened in adult education. (Oyebamji and Adekola 2012).

Conscientization is therefore the process that enables the adult individual become conscious about themselves and their situation, develop themselves and their situations, develop changes within their socio-cultural milieu. This theory advocates for discovering of potentials, strength and skills and abilities to live a meaningful and purposeful life. (Dokubo 2015)

Therefore adult education indices, such as mentioned in the study that can impact into the adult, the knowledge, skills; attitude, norms and behavior is relevant for transforming the individual for promotion of 2030 agenda for sustainable development goals. 1-4 as the focus of the study.

Statement of the Problem

Delta state is one of the 36 states in Nigeria, created on 27th August 1991 and situated in the South-South geopolitical zone of Nigeria.

Economically, Delta state is the leading state in the production of Crude Oil and natural gas, with minor focus on agriculture and other non-mineral resources, which is domestically found in abundance and emphatically been neglected in the state, for the purpose of the highly paid oil booms which is the major Nigeria export product for foreign exchange earnings.

The explorations of the crude oil and natural gas in the state has left a devastating effect on the host communities and the indigenes. The land and the soil are polluted with oil spills and other drilling chemicals that are not remediated immediately, thereby leaving the community land unproductive for agricultural products. The indigenes has also abandoned the non-mineral resources sector in pursuits of oil minerals and white collar’s jobs. Hence the state is faced with series of developmental challenges, ranging from high level of poverty, hunger, mass illiteracy, community conflicts, youths unemployment, kidnapping, diseases, sicknesses, poor infrastructural facilities, low income generating activities, unproductive farm lands, incessant cases of kidnappings, ritualism known as yahoo plus (cyba crimes) etc. Hence the concern of this study.

Aims and Objectives of the Study

The Aims of this study is to investigate the contextualize adult education indices for effective implementation of 2030 SDG (1-4) of Sustainable Development for poverty eradication and food security in Delta state, Nigeria. Specifically, the study was guided by the following objectives;

- i. To ascertain the roles of adult educational indices of occupational and cooperative commerce education for effective implementation of 2030 sustainable development goal I (to end poverty in all forms everywhere) in Delta state, Nigeria.
- ii. To examine the contributions of agricultural extension education indices for effective implementation for 2030 sustainable development goal II (to end hunger and achieve food security in Delta state, Nigeria).
- iii. To identify the roles of health and family planning education indices for effective implementation of 2030 sustainable development goal III (ensure healthy lives and well beings of the people) in Delta State, Nigeria
- iv. To identify the influence of adult literacy education indices for effective implementation of 2030 sustainable development goal IV (ensure inclusive, equitable quality educations and lifelong learning opportunities) in Delta state, Nigeria

Research Questions

The following research questions guided the study.

- i. In what ways does occupational education and cooperative commerce education plays a role in effective implementation of 2030 sustainable development goal I (end poverty) in Delta state, Nigeria?
- ii. In what ways does agricultural extension education indices contribute in effective implementation of 2030 sustainable development goal II (end hunger and achieve food security) in Delta State, Nigeria?
- iii. In what ways does health and family planning education indices contributes in effective implementation of 2030 sustainable development goal III (ensure healthy lives and well-being) in Delta state, Nigeria?
- iv. In what ways can adult literacy education indices contribute in effective implementation of 2030 sustainable development goal IV (Ensure Inclusive equitable quality education and lifelong learning opportunities) in Delta state, Nigeria?

Scope of the Study

The scope of the study is limited to the following components of adult learning indices, such as occupational education and cooperative commerce educations, agricultural extension education, health and family planning education and adult literacy education, while the focus is on Delta state Nigeria with six (6) local government areas, purposely selected as its geographical scope with two (2) local government areas chosen to represent each administrative senatorial zones in the state, intentionally driven by the quest to achieve the 2030 agenda of sustainable development, ranging from goal 1 to goal IV among the seventeen (17) goals itemized;

Goal 1: End poverty in all its form everywhere in the world.

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

- Goal 3: Ensure healthy lives and promote well-being for all at all ages.
Goal 4: Ensure inclusive and equitable quality education and promote Life-long learning opportunities for all.

Significance of the Study

The significance of this study is quite enormous that cannot be despised, particularly with regards to transforming adult education programmes for promotion of 2030 Agenda for sustainable development in Delta state. Consequently the result of the finding will be useful for both federal, states, local government areas, ministries of local government and chieftaincy affairs, Non-governmental Organisations, Ministries of education, Developmental agencies and department, Academia, Community-based Organisations (CBOs) and the community adult male and female folks.

These institutions corporate organisations and individual are expected to apply the results of the findings to carry out awareness and sensitization of adult education programmes to transform the means of livelihood of the people through knowledge and skills gain from Organized workshops, seminars and conferences, facilitated by the institutions and government at all levels to promote 2030 agenda for Sustainable Development Goal 1 – 4, which is the focus of the study.

Methodology – Research Design

The study adopted descriptive survey design. According to Wali in Atu (2021), descriptive survey design is concerned with a description of the current status of event or facts about a given population.

The design is imperative to this study, owing to its ability to describe or interpret the existing differences, attitudes, skills and opinions of respondents towards transforming adult education programmes and promotion of 2030 agenda for Sustainable Development amidst challenge in Delta State.

Population of the Study

The population of the study comprises of all adult members of the selected communities with a total of 3,782 participants, consisting of 1,967 adult male, representing 52% and 1815 female participants representing 48% drawn from Ika-South Ndokwa -East, Ethipe-West, Sapele, Burutu, and Bomadi local government area from the geographical scope of the three (3) senatorial zones in the state.

Sample and Sampling Techniques

The study applied multi-stage sampling technique in selecting six (6) local government area in the state, while random sampling techniques was used to select various communities in the six (6) local government area. However, the study applied Taro Yamen formula to determine the sample size, which I s state below;

$$n = N/(1+N \epsilon 2)$$

n = signifies the sample size

N = signifies the population of the study

e = signifies the margin of error

$$\begin{aligned} \text{Therefore } n &= 37821 (1 + 3782 (0.0025)) \\ n &= 3782 (1 + 9.455) \\ n &= 3782/10 \\ n &= 378 \end{aligned}$$

Instrumentation for Data Collection

The instrument for Data collection for the study was structured questionnaire, rated on four (4) points modified Likert scale of Strongly Agree (SA = 4) Agree (A = 3). These represent positive responses to questionnaire items, while Disagree (D = 2) and Strongly Disagree (SD = 1) representing negative responses to questionnaire items.

Method of Data Analysis

The study adopted descriptive statistics such as mean and standard deviation to answer the research questions. A mean value of 2.49 below, on any item of the research item was regarded as disagreed while a mean value of 2.50 and above on any item was regarded as agreed. There the criterion mean of the study was 2.50.

Presentation of Data

Research Question one: In what ways does occupational education and cooperative commerce education plays a role in effective implementation of 2030 sustainable development goal I (end poverty) in Delta state, Nigeria?

Table 1: Occupational Education and Co-operative Commerce Education for effective implementation of 2030 Sustainable Development Goal 1 (End poverty in all forms everywhere) in Delta State, Nigeria.

S/N	Items	SA 4	A 3	D 2	SD 1	n	Score Total	Mean	Std	Decision
1.	Acquisition of skills for wealth creation and contribution towards sustainable development	160	90	68	60	378	1106	2.93	0.91	Agree
2.	Provision of access to credit loan facilities	180	90	70	38	378	1168	3.09	0.94	Agree
3.	Enhancement of available skilled manpower for efficiency and effectiveness	180	100	70	28	378	1188	3.14	0.98	Agree
4.	There is a provision of considerable funds to organize sustainable development project/programmes.	160	105	68	45	378	1136	3.01	0.88	Agree
Grand Mean							3.05	Agree		

Table 1. Reveals the effects of occupational education and cooperative/commerce education for effective implementation of 2030 sustainable development Goal 1. Amidst development challenges in Delta state. It shows that items (1, 2, 3, 4) have their criteria mean above 2.5, which indicates that these items were considered to be agree as occupational education and cooperative commerce education in promoting 2030 sustainable development Goal 1. (End poverty in all forms everywhere) in Delta state. The table also shows that item (3) has the highest mean score of (3.14), while item (1) has lowest mean score of (2.93). Again, a grand mean of (3.05) was obtained which indicates that the items were considered to be agree as occupational education and rural cooperative/commerce education in promoting 2030 sustainable development Goal 1. (End poverty in all forms everywhere) in Delta state.

Research Question two: In what ways does agricultural extension education indices contribute in effective implementation of 2030 sustainable development goal II (end hunger and achieve food security) in Delta State, Nigeria?

Table 2: Roles of Agriculture Extension Education for effective implementation of 2030 sustainable Goal 2 (End hunger and achieve food security) in Delta State, Nigeria

S/N	Items	SA 4	A 3	D 2	SD 1	Total n	Mean Std	Decision		
5.	Improvement in agricultural practices for sustainable development	195	115	50	18	378	1243	3.29	1.10	Agree
6.	Acquisition of skills for wealth creation for sustainability	169	110	60	39	378	1165	3.08	0.93	Agree
7.	Participating in agricultural extension programmes have lead to improvement in living standard and poverty alleviation of members of the rural dwellers	140	100	88	50	378	1086	2.87	0.63	Agree
8.	There is increase of awareness	160	95	68	55	378	1116	2.95	0.93	Agree

concerning agricultural products enhancement mechanism										
Increase awareness in the use of modern technology and innovations for improved agricultural practices	165	110	53	50	378	1146	3.03	0.90	Agree	
Grand Mean							3.04		Agree	

Table 2 reveals roles of agricultural extension education in promoting 2030 sustainable Goal 2, (End hunger and achieve food security) in Delta state. 5, 6, 7, 8, 9) have their criteria mean above 2.5, which implies that these items were accepted as roles of agricultural extension education in promoting 2030. Sustainable Goal 2 in Delta state. The table also presented item (5) with the highest mean score of (3.29), while item (7) as the lowest mean score of (2.87). Again, a grand mean of (3.04) was obtained which also indicates that the items were agree as roles of agricultural extension education in promoting sustainable development in Goal 2 (End poverty and achieve food security) in Delta state

Research Question three: In what ways does health and family planning education indices contributes in effective implementation of 2030 sustainable development goal III (ensure healthy lives and well-being) in Delta state, Nigeria?

Table 3: Roles of health and family planning education for effective implementation of 2030 Sustainable Development Goal 3, (ensure healthy life and wellbeing) in Delta state Nigeria

S/N Items	SA				n	Score Total	Mean	Std	Decision
	4	A 3	D 2	SD 1					
10	Rural health and family planning education has greatly imparted on the rural dwellers positively for sustainable development				174	1209	3.20	0.96	Agree
11	Leads to proper family planning and management of the family's generated income for sustainable development				180	1188	3.14	0.98	Agree

12	Leads to improvement in personal and family health	185	105	65	23	378	1208	3.19	0.96	Agree
13	Increases great consciousness for personal hygiene and environmental cleanliness among the rural dwellers towards sustainable development	160	95	68	55	378	1116	2.95	0.93	Agree
14	Increases participation in issues of environmental degradation and preservation of the eco-system	145	80	63	90	378	1036	2.74	0.51	Agree
15	Cooperative/commerce education has positively influenced my potentialities for business opportunities and self-reliance initiatives	165	110	53	50	378	1146	3.03	0.90	Agree
Grand Mean								3.04	Agree	

Table 3. Reveals roles of health and family planning education in promoting 2030 sustainable development Goal 3, (ensure healthy life and wellbeing) in Delta state. It shows that items (10, 11, 12, 13, 14, 15) have their criteria mean above 2.5. The table also presented item (21) with the highest mean score of (3.20), while item (25) as the lowest mean score (2.7). Again, a grand mean of 3.04 was obtained which also indicates that the items were agree as roles of health and family planning education in promoting 2030 sustainable development Goal 3 (ensure healthy life and wellbeing) in Delta state, Nigeria.

Research Question 4: In what ways can adult literacy education indices contribute in effective implementation of 2030 sustainable development goal IV (Ensure Inclusive equitable quality education and lifelong learning opportunities) in Delta state, Nigeria?

Table 4: Ways in which adult literacy education indices contribute in effective implementation of 2030 Sustainable Development Goal 4 (ensure inclusive and equitable quality education for lifelong learning) in Delta state, Nigeria.

S/N	Items	SA	A	D	SD	n	Total	Mean	Std	Decision
16	Able to read, write and compute figures (literacy education)	190	120	48	20	378	1236	3.27	1.04	Agree
17	Involvement in adult literacy programmes has made great difference in my life	180	110	60	28	378	1198	3.17	0.99	Agree

18	Involvement in basic literacy programme has made no difference in my life	70	80	100	128	378	848	2.24	0.13	Disagree
19	Involvement in basic literacy programme has greatly improve my decision making and participate in sustainable development issues	170	100	70	38	378	1158	3.06	0.93	Agree
20	The knowledge gained from adult basic literacy programme has created in me the consciousness and zeal for participation in issues/affairs of my community	175	95	73	35	378	1166	3.08	0.93	Agree
21	having obtained the knowledge of reading, writing and arithmetic, I can now contribute meaningfully to the development of my rural community	180	110	60	28	378	1198	3.17	0.99	Agree
22	Participation in adult basic literacy programme has greatly enhanced my socio-economic and political status	150	120	30	78	378	1098	2.90	0.82	Agree
23	Participating in adult basic literacy education programme has greatly helped to improve my mental, physical reasoning	175	95	73	35	378	1166	3.08	0.93	Agree
24	Acquiring the skills of reading, writing and calculative skills, is essential for my personal development	140	110	38	90	378	1058	2.79	0.55	Agree
25	Participation in adult literacy education has greatly transformed my socio-economic status in my community	165	110	53	50	378	1146	3.03	0.90	Agree
	Grand mean							2.98		Agree

Table 4. Shows the ways in which adult literacy education contributes to promote 2030 sustainable rural development in Delta state. It also reveals that items (16, 17, 18 19. 20, 21, 22, 23, 24) were considered to be agree because their mean criteria was above 2.5 while item (18) was considered to be disagree because the criteria mean was below 2.50. It also shows that item (16) has the highest mean score of (3.27) while item (18) has the lowest mean score of (2.24). Again, the grand mean of 2.98 was obtained which indicates that the items were agree as ways adult literacy education contributes for effective implementation of 2030 Sustainable Development Goal 4, in Delta State.

Discussion of Findings

Research question One: In what ways do occupational education and cooperative commerce education for effective implementation of 2030 sustainable development goal 1. (End poverty in all forms everywhere) in Delta state, Nigeria?

The study reveals that occupational education and cooperative/commerce education promote sustainable development through acquisition of skills for wealth creation, provision of access to credit loan facilities, enhancement of available skilled manpower for efficiency and effectiveness. There is also a provision of considerable funds to organize sustainable development project/programmes. The study is in agreement with Oyibamiji and Adekola (2012) who also found no significant difference of their own study. They supported that occupational education and cooperative/commerce education leads to reduction or elimination of poverty, inequality, unemployment and general improvement of self-esteem and sustainable development. They added that it is through operational education that both individual and members of the society are train, empowered and inculcated the needed education, aptitude, information, skills, knowledge in various aspect which are necessary to bring improvement in the overall quality of life.

Research question two: In what ways does agricultural extension education programmes contribute in effective implementation of 2030 sustainable Development goal 2? (End hunger and achieve food security in Delta State.

The study reveals that there is improvement in agricultural practice, acquisition of skills for wealth creation, improvement in the living standard of the people, create an awareness concerning agricultural product enhancement mechanism and increase in the awareness of the use of medium technology for innovation of agricultural practices within the rural dwellers based on adult education agricultural extension programmes.

This result is in line with the study of Olaye and Onajite (2015) who supported that adult learning and education is designed to teach people the benefits of agricultural extension education which is aimed at improving agricultural products for provision of adequate food for society. Kanu (2014) also supported that community mobilization programmes of government adopted in the rural areas include; the establishment of cooperatives, availability of agricultural extension services and provision of self-reliance schemes, which in turns better the life of the people in that area. The development of agricultural extension education programmes in rural areas is regarded as the major component of successful sustainable development, as 70% of the population of Delta state is employed in the agricultural sector, living in rural communities.

Hence, agricultural extension programmes can greatly promote 2030 sustainable Goal 2 which is to end hunger and achieve food security and improve nutrition, amidst Development challenges in Delta state.

Research question three: To what extent does health and family planning education contribute in effective implementation of 2030 sustainable Development Goal 3 (Ensure health, lives and healthy in Delta state).

The study reveals that rural health and family planning education has greatly imparted on the dwellers positively, leads to proper family planning and management of the family's generated income for rural development, leads to improvement in personal and family health. Increases great consciousness for personal hygiene and environmental cleanliness among the dwellers towards rural development.

The result is in agreement with the study of Nwobe (2007) who found no significant difference of their own study. He supported the study when he said family planning is a crucial factor for rural development. It is an integrative activity which seeks to provide a framework of activities through which there is massive commitment of the resources of the community.

Exa, Ugwu and Atu (2021) also supported that rural health and family planning education promoting rural development. They noted that many health-related programmes promote health benefits of the individual adult learners and also enhance sustainable development. These programmes are beneficiary to both the adult learners, family, community, and the society at large. Adult learners who enroll in educational programmes also enjoy the benefits of increased quality of life through adult learning programmes.

Ojokheta (2018) also supported the study when he noted that the role of family planning education has improved mental, physical, social, and moral and health development of children and the entire family. He also contributed that there is introduction of new technology and improve agricultural and food production as well as health condition of the people.

Oyebamiji and Adekola (2012) opine that adult education indices such as listed in the study is capable of elimination of poverty, inequality, unemployment, and general improvement of self-esteem and rural development. They added that it is through adult education that both the individual and the members of the society are trained, empowered, and inculcate the needed education, aptitude, information, skills, knowledge in various aspects which are necessary to bring about improvement in their overall quality of lives.

Radhika (2019) also supported the study when he contributed that adult education is designed to develop knowledge, and skills associated with various economic activities that are useful in making a living since the main objectives of the rural individuals is to generate a source of income. Therefore, it becomes clearly obvious that through adult education indices, individual members of the rural community can be mobilized towards enriching lives, tap on the available opportunities to promote rural development. Hence, health and family planning education an greatly contribute to promote 2030 sustainable Development Goal 3 (Ensure healthy lives and promote wellbeing for all as all ages, amidst Development challenges in Delta state).

Otti (2016) also found no significant difference in his own study as accepted. Therefore, he recommended among others that adult education indices are capable of empowering the rural dwellers and curbing poverty level and promote food security. He also added that government should capitalize on the benefits of adult education indices and organize workshop, seminars, conference for sustainable development in rural areas.

Research Question Four: To what extent can adult literacy education indices contribute in effective implementation of 2030 Sustainable Development Goal Four (Ensure inclusive and equitable quality education for lifelong learning opportunities) amidst Development Challenges in Delta State.

The study reveals that adult literacy education has contributed to reading, writing, computing of figures and calculative skills of rural dwellers. The knowledge gained has created high level of consciousness and zeal for participation in issues/affairs concerning rural community. Participation in adult basic literacy programme has greatly enhanced socio-economic and political status of our communities. It has greatly helped to improve mental, physical reasoning of the participants.

Conclusion

Base on the above findings we can therefore conclude that occupational education and rural cooperative/commerce education has promoted rural development through acquisition of skills for wealth creation provision of access to credit loan facilities, enhancement of available skilled manpower for efficiency and effectiveness. Occupation education and rural cooperative/commerce education leads to reduction or elimination of poverty, inequality, unemployment, and general improvement of self-esteem and rural development.

There is an improvement of agricultural practices, acquisition of skills for wealth creation, improvement in the living standard of the people and innovation of agricultural practices through adult education programmes.

Adult basic literacy education programme has greatly helped to improve mental, physical reasoning of people in the in Delta state.

There is an improved knowledge for reading and writing, improved rural health scheme as a result of adult education programmes. Rural health and family planning education has greatly impacted on the rural dwellers positively, also leads to proper management of the family's generated income for rural development, leads to improvement in personal and family health, increases great consciousness for personal hygiene and environmental cleanliness. Family planning education has improved mental, physical, social, moral and health development of children and families in the area.

Recommendations

The following recommendations were made based on the findings of the research:

1. Ministry of education should also come up with programmes that will support adult basic literacy education for reading and writing effectively of adult learners.

2. Agricultural extension education programmes should be compulsory in our high institutions, since it leads to acquisition of skills for wealth creation and improvement of agricultural practices for provision of adequate food for the society.
3. Rural health and family planning education programmes should be encouraged since it has the benefits of increasing quality of life through academic stimulation.
4. Adult literacy education programmes should be encouraged, hence it has positive impact in the life of people.
5. Government and other stakeholders of education should assist in providing relevant facilities for the learners and adult education study centers at large, as this will go a long way in enhance their academic performance

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