21st Century Technological Innovations and the place of Adult Education in Nigeria

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Abstract

Information and communication technology (ICT) is the engine behind significant advancements in the global education system. This is because ICT aids every country to produce or develop a well-rounded person who can live in his surroundings and make a significant contribution to the survival of the society to which he belongs. Previous studies on Nigerian education focused on factors militating against qualitative education in Nigeria. Deviating from the normal focus, this study discusses the place of adult education on 21st century technological innovations. Data for this study were secondarily sourced through textbooks, journal articles, newspaper publications, and etcetera. findings show that Nigerians who entered the workforce before finishing their schooling because of family obligations are unable to balance work and studies, and very few of those who have a great desire for education are unable to do so due to the limited options in the traditional institutions of learning. Also, the bulk of the country's female population lacks access to education due to childhood traditions, early marriages, and religious convictions. Based on these findings, the study calls for wider integration of ICT into the Nigerian education system as a way of adapting and updating current instructional frameworks and the learning ways of adult students.

Keywords: Adult students, Education, ICT, Society, Workforce.

Introduction

The main factor in human progress is still education. It is regarded as the engine behind significant advancements in every human civilization. Any educational system should aim to

produce or develop a well-rounded person who can live in his surroundings and make a significant contribution to the survival of the society to which he belongs. One of the main professions that can adequately address the socioeconomic, political, cultural, and environmental issues that adults face is adult education (Onyenemezu, 2012). It is impossible to overstate how effective adult education has been in fulfilling the objectives outlined in the National Policy on Education (2004). More than any other profession, adult education transforms the social and psychological minds of adults, gives them renewed hope, and frees them from the bias that they are incapable of learning. Adult education helps learners become more conscious of their potentials in their social, economic, cultural, and political environments, as well as their psychological potentials and untapped skills. It also exerts enormous influence on the larger society in terms of national development. Where the instructor in the official education system leaves off in instilling the student with a rigorous desire for information, understanding, and education is where adult education picks up (Fasokun, 2006).

Muslims in Lagos began offering adult literacy sessions, and in the 1950s and 1960s, one of these centers, the Alakoro Literacy Center, rose to fame (Obire et al., 2012). The Nigerian Breweries Limited, the Young Women's Christian Association, the Nigeria Baptist Convention, and the National Council of Women Society all sponsored evening sessions (WHAWO, 1995). In Nigeria, the number of adult literacy classes has increased. It is clear that some sort of approach was previously employed to develop adult and non-formal education for everyone. The government is making significant efforts to increase adult literacy in Nigeria, and agencies for mass education have been established in all 36 states of the federation, including Abuja. These changes in the adult education process are currently showing themselves in many different ways. The establishment of several directorates for public education and awareness, including as the

Directorate of Foods, Roads and Rural Infrastructure (DFRRI), the commendable Mass Mobilization for Social and Economic Recovery (MAMSER), Better Life for Rural Women, and the Family Support Programs (Ewuzie, 2007).

The concept of adult education

According to Ihejirika (2012) and Ekezie (1997), the term "adult education" refers to all types of learning programs in which adults take part in order to enhance their knowledge, develop their skills, and advance their technical or professional credentials. This enables them to meet their own needs as well as the needs of their societies. It is a process of passing down general technical or vocational knowledge as well as the acquisition of skills, values, and attitudes that occurs both inside and outside of the formal educational system with the goal of making up for mature people's early education deficiencies and fostering their active participation in the social, economic, and political life of the society (Tukur et al., 2021).

According to Seya (2005), referenced in Ihejirika (2012), adult education programs range in the organization from informal incidental learning to official credit courses. Adult education, in the opinion of Nzeneri (2008), is a crucial tool for adjustment, for people, groups, and national and international organizations, as well as for development, need identification, need fulfillment, and problem-solving. Therefore, adult education is growth-oriented; it is a process designed to make an adult more helpful to himself and his society. Without hesitating, Imhabekhai (2009) defined adult education as a process of removing barriers and constraints that prevent each adult from realizing their full potential. The National Policy on Education (1977) has defined adult education as the education of the youths and adults outside the formal system of education. The policy lists the following objectives of adult education (Ekezie 1997);

1) To provide functional and remedial education for those young people who prematurely dropped out of the formal school system.

 2) To provide functional literacy education for adults who have never known about any formal education

3) To provide further education for different categories of completers of the formal education system to improve their basic knowledge and skill

4) To provide in-service. on-the-job. vocational and professional training for different categories of workers and professionals to improve their skills.

5) To give the adult citizens of the country the necessary aesthetic, cultural and civil education for public enlightenment

Scope and forms of adult

Adult and non-formal education may take different forms. The eradication of extreme poverty and hunger is a focus of certain adult and non-formal education programs (Akpama et al. 2011). In Nigeria, the nation's educational framework makes clear the extent of adult and non-formal education. The scope and goals of adult and non-formal education are covered in Section 6 of the National Policy on Education (2004) (Nnamani 2014. These are a few adult educations related topics

Forms of Adult Education in Nigeria
Basic literacy
Vocational Education
Environmental Protection Education
Computer Literacy
Women Education
Child Welfare and Child Protection Education
Entrepreneurial Skills

Population Education
Family Planning Education
Functional Literacy Education
Remedial Education
Aesthetic, Cultural and Civic Education
In-Service or on-the-Job Education and Vocational and Professional Training

Source: (Nnamani, 2014)

21st Century Innovations

Information and communication technologies (ICT) are among the most significant inventions of the twenty-first century. ICT stands for information capture, processing, storage, and dissemination technologies. Microelectronics, computing, and telecommunications' convergence is the global phenomena that has had a significant impact on all domains, including labor, productivity, trade, and commerce (Sesan, 2001). In order to enable information processing and communication operations, it employs computers, software, peripherals, and internet infrastructure (UNDP, 2001), as mentioned in Idogho and Kayode (2012). This article introduces new educational technology and how they are used in adult education.

Strengthening adult education through the use of information and communication technology

Early Adult and Non-Formal Education programs used print, radio, television, audiotape, videotape, and satellite transmission as an effective and affordable means to offer educational possibilities to adults who are illiterate and out-of-school learners (Tukur, 2021). New novel learning tools are being developed that will significantly alter how adult and non-formal education is provided thanks to further advancements in ICTs such Very Small Aperture Terminal (VSAT) satellite communications, the Internet, and CD-ROMs (Idogho & Kayode, 2012). By integrating ICT into lesson plans, teaching methodologies, and curricula, as well as

allocating funds to the purchase of ICT-related resources, many countries have created e-learning and m-learning strategies, and are rapidly growing the usage and knowledge of ICT in educational activities. The following techniques offer suggestions for how to use information and communication technology (ICT) to improve the delivery of adult and non-formal education.

1. Blogging: A blog is a digital personal journal that is published on the internet. It consists of discrete items (called "posts") that are often arranged in reverse chronological order, starting with the most recent one. From the standpoint of education, the accessibility and simplicity of blogging software enable the creation of blogs a workable classroom activity and a way for teachers to interact with one another.

2. Social Media Network: Web-based and mobile technologies are employed in social media to transform communication into interactive discourse between groups of people, communities, and organizations. Both older and younger generations are increasingly using social media, which eventually overthrows the news media's traditionally authoritative voices. Following are some potential applications for social media: incorporating real-world applications into instruction, connecting with colleagues, cooperating in learning, acquiring a second language and communicating across cultures, assessing students, providing online education, communicating with parents, giving back to the community, and engaging in professional development

3. Skyping: Since 2003, Skype Technologies has provided free video and phone conferencing services, but many schools at the time lacked the webcams and high-speed connectivity required for video correspondence. But as technology infrastructures improved, Skype underwent changes, and teachers were pushed harder to discover new

ways to engage their pupils in learning, it seems that educators began to use Skype more frequently later in the decade.

4. Mobile Learning: For various cultures, the word "mobile learning" means different things. While it is connected to e-learning and distant learning, its focus on learning across contexts and using mobile devices sets it apart. Mobile learning may be defined as any type of learning that takes place when a student is not in a set, preset location or when they utilize the learning opportunities provided by mobile technologies.

5. Podcasting: Podcasting, which is listening to audio recordings of lectures, can be used to review live lectures and give students the chance to practice giving oral presentations (Clark & Westcott, 2007). Additionally, podcasts may offer supplementary information to improve conventional presentations.

6. E-Learning: All modes of learning and teaching that are facilitated electronically are included in e-learning. Whether or whether networked learning is used, information and communication systems act as specific media to carry out the learning process (Tavangarian et al., 2004). Even as technology and curricula continue to improve, the phrase will probably still be used to describe educational activities that take place outside of the classroom and inside of the classroom.

Challenges to adult non-formal education programmes in Nigeria

The Adult and Non-Formal Education programme in Nigeria is faced with various challenges and constraints (Nnamani 2014). Some of them include;

1. Poor funding is a major problem. adult and non-formal education is not given enough attention financially. Education competes with other social sectors for funds. The much given for the programme goes for overhead leaving little for infrastructural cost.

2. Non-Use of Multi-Media for meaningful vocational and science subjects. The use of multimedia equipment is important. This limits their curriculum to liberal arts subjects and thus reduces their contribution to the development of technical manpower

3. Infrastructural Inadequacy. The policy made provisions for some equipment that will enhance the teaching and learning of this programme, such as mobile phones, rural libraries, television, viewing centers and audio listening centers, but most of these things are near absent in these setting. Even where there is any, the poor condition of the country's electricity will make it impossible to run them

4. Poor monitoring and supervision of adult education programmes in Nigeria by the relevant ministry

Challenges of ICT in adult education

Integration of ICT is still a dream in the Nigerian educational sector because of the poor ICT infrastructure and other socio-economic reasons. Ogedegbe and Oyaniyi (2010) stated some of the impediments to its full integration as follows:

•   Digital Divide. This is the inequality of access to technology by the students. The costs of personal computers and laptops are still very high in Nigeria

•   For the illiterate and neo-literate, literacy and local content barrier interfaces have been designed using icons, graphics, touch displays, and voice recognition. The majority of the

material provided by ICTs is in English, which is a language that is not widely read in rural areas of developing nations. There is a severe lack of pertinent resources that address their needs in their native tongues.

- Technology Infrastructure. Cyber cafés in most of the main urban centers of all countries have public access to ICT to varying degrees, while access is practically nonexistent in rural areas. The main obstacle to implementing ICT in rural regions is still a lack of infrastructure (electricity, phone lines, and hardware).

- ICT Policy and Implementation. It has been difficult to coordinate ICT projects and programs being carried out individually by various organizations functioning in the education sector due to a lack of strategy at the ministerial level, and this will result in resource waste and duplication.

- Maintenance and Technical Support. When a technical issue is identified, it is exceedingly expensive for the few students who have PCs to maintain them because there is a lack of technical staff to maintain the system.

Benefits of using ICT in adult and non-formal education

In addition to the requirement to adopt new technology, Ogedegbe and Oyaniyi (2010) noted that there are numerous more reasons for the integration of ICT in adult and non-formal education. First of all, despite their superior merit, the majority of Nigerians are unable to attend urban-based universities since they live below the poverty line. Second, individuals who entered the workforce before finishing their schooling because of family obligations are unable to balance work and studies, and very few of those who have a great desire for education are unable to do so due to the limited options in the traditional institutions of learning. Thirdly, the bulk of the country's female population lacks access to education due to childhood traditions, early

marriages, and religious convictions. Additionally, the majority of Nigerians are denied an education due to physical obstacles, inaccessible locations, and high tuition costs in most privately run institutions. For such a sizable poor population, ICT-enabled learning offers a path to higher education (Ogechukwu & Osuagwu, 2008). The following are only a few benefits of ICT-enabled education:

- Provide wider access to education
- Ensure equity and equality of opportunities in education
- Enhance education for all and life-long learning
- Provide the entrenchment of global learning culture
- Provide flexible, but qualitative education
- Reduce the cost, inconveniences, hassles of and access to education and its delivery
- Enhance more access to education
- It provides student courses round the clock i.e. 7 days, a week and 24 hours a day, which further attracts working-class students and individuals

Conclusion

Clearly, information and communication technology (ICT) is a key and widely used way to carry out a substantial task in adapting and updating current instructional frameworks and the way that people learn. It plays a big role in a few aspects of daily activities, not just in adult and non-formal education. Information and communication technology (ICT) is fundamentally a development that helps teachers and students of all academic levels gain access to data resources. Information and communication technology (ICT) has a beneficial impact on education, which is taken into account. and coordination that are essential to hierarchical success and can together improve the presentation of key players in reimagining the instructional framework

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