

THE IMPERATIVE OF EDUCATIONAL TECHNOLOGY RESOURCES UTILIZATION IN NIGERIAN CLASSROOMS FOR EMPLOYMENT AND PRODUCTIVITY AMONG NIGERIANS IN THE 21ST CENTURY

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Abstract

Educational Technology and its resources are relatively new in Nigeria. However, they can prove their courses if well harnessed and effectively utilized in the daily Nigeria classroom activities. This paper which is on the imperative of educational technology resources utilization in Nigerian classrooms for employment and productivity among Nigerians explained the meaning of educational technology. It equally explained the meaning of educational technology resources. The paper went further to highlight the imperative of utilizing educational technology resources in Nigerian classrooms, its implications for employment and productivity. It equally x-rayed the challenges in utilizing educational technology resources and the way forward.

Education all over the world has been recognized as a veritable and an indispensable instrument of development. Ajayi and Adu (2000:315), posited that “the United Nations Education, Scientific and Cultural Organization (UNESCO) at its 27th session of the General Congress identified education as a tool for the development of all human potentials which is the most powerful lever for shaping the future”. The ability of man to live a satisfied and worthwhile life depends to a large extent on certain factors which include increasing ability to sustainably explore and functionally derive and maximally utilize the available resources of nature. To achieve this, there is an urgent need for a functional education of the members of the society. Functionality here simply means a practical or pragmatic rather than decorative education. An education that will yield positive results for the individuals that acquired it and the society in which the individuals live. Through this functional education, there will be a proper understanding and effective control of technologies that will bring about socio-cultural and economic development, creation of more wealth, production of goods, food, improved healthcare delivery system and better communicative network among others. It is a known fact that most great and advanced countries of the world achieved their greatness in the classroom. A classroom generally is a place set aside for formal teaching and learning by the teachers and learners (students or pupils);

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To realistically live and appropriately face daily challenges and problems, man needs an all round functional education. Such education should be designed to prepare and equip man for an acceptable profitable and worthwhile life in any community that man may find himself. A maxim has it that there is dignity in labor. This implies that being gainfully employed and productive is honorable. Be that as it may, a functional education is supposed to equip an individual with skills that will enhance the individual's productivity in the society. To achieve this all important functional education in Nigeria, the effective utilization of educational technology resources in Nigerian classrooms becomes an imperative.

Educational Technology

Educational technology has been seen as the latest innovation in our educational practice. A lot of efforts have been made to define educational technology. To a lay person, educational technology is apparatus, teaching aids, learning aids, audio-visual aids, instructional materials and so on. Educational Technology definitely means more than all these. The American Association for Educational Communications and Technology (AECT) as cited in Abimbade (2006:10) defined educational technology as “a field involved in the facilitation of human learning through the systematic identification, development, organization and utilization of learning resources and through the management of these process”.

The AECT definition of 1972 was later revised in 1977 and educational Technology was seen as a systematic approach to solving educational problems and was defined as a complex integrated process involving people, procedures, ideas, devices and organization for analyzing problems and designing implementing, evaluating and managing solutions to these problems involved in all aspects of human learning. To Inyang-Abia (2004:67), educational technology can be simply defined as “an area of study and practice in education which focuses on the study, mastery and application of developments in science and technology to identify and solve educational problems using human and non human resources based on systems approach”. To this paper, educational technology is an area of study that is concerned with identifying and solving educational problems using principles and discoveries in science and technology which involves both human and material resources based on systems approach. Balogun (1981) as cited in Abimbade (2006:47) defined systems approach as “a technique for making explicit the structure and organization of an ordered whole by laying bare its elements and showing the inter-relationship between them”. The Center for Educational Research and Innovation as cited in Ajelabi (2000:19) believed that “educational technology is the systems approach to the teaching and learning process centering around the optimal design, implementation and evaluation of instruction”. To Abimbade (2006:47), “system approach has been identified with education as a system which include the following sub-systems: curriculum and instruction, administration and management, supportive and maintenance components working together for the realization of educational goals”.

Educational Technology Resources

The Collins English Dictionary (2011:872), defined resource as “something resorted to for aid or support”. Educational Technology resources therefore are those things that are resorted to for aid or support in the teaching learning process. According to Abimbade (2006:17), “in educational technology, learning resources are in five categories namely people, materials, equipment & tools, setting and activities”. Some resources are developed and used in education that is in the teaching learning process. These are called learning resources by design. Other resources exist as part of normal everyday use in the World but can be discovered, applied and used for teaching learning purposes. These are called real-world resources. When such resources are used to facilitate the teaching learning process, they are referred to as resources by utilization.

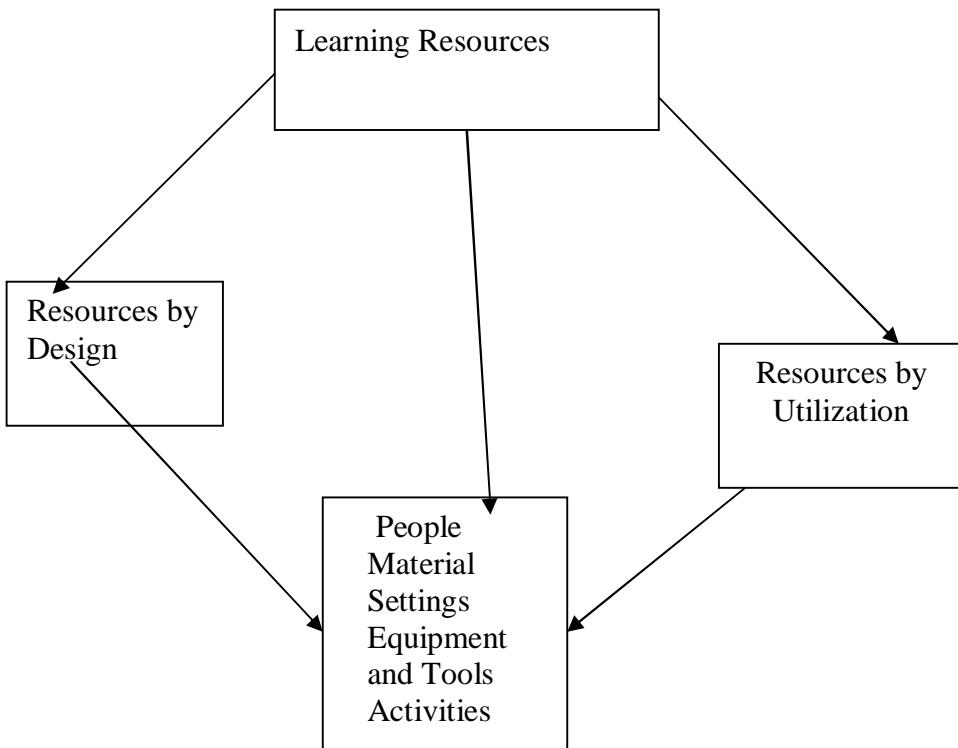


Figure 1: Educational Technology Resources

Listed Below are Specific Examples of Educational Technology Resources:

N	Categories of Resources	Design	Utilization
1	People	Teachers Counselors Tutors etc	Engineers Bankers Artists etc
2	Materials	Printed books maps, charts globes etc	Films, video tape recorders (VTR), motion pictures etc
3	Setting	School buildings, Library, Auditorium Laboratory, classrooms etc	Factories, museums, parks, airports, Theatres, stadia
4	Tools and equipment	Over head projectors, slide projectors, audio-visual materials etc	Machines, microscopes, computers etc
5	Activities	Programmed Instructions, simulations and gaming, field- trips, group interactions etc.	Excursion visits to Factories, airports and traveling etc.

The Imperative of Utilizing Educational Technology Resources in Nigerian Classrooms

Education as earlier stated is the pivot of both individual and national development. Education helps in training and equipping an individual to enable him/her live a more satisfying, fulfilling and productive life by preparing the person to handle new experiences and challenges successfully. To achieve this, every teaching learning process ought to bring about the acquisition of certain skills that will lead to changes in behavior: Gagne (1974) identified five broad categories of these skills namely: verbal information, intellectual skills, cognitive strategies, attitudes and motor or manipulative skills. The goal of any teaching learning process is to bring about the acquisition of these skills. These skills when acquired will help the learners to develop their potential on their journey to adulthood so that they can become functional, pragmatic, productive and useful citizens to their society. Be that as it may, the teacher especially at the lower level of education that is pre-primary to secondary education has lots of work to do. This is because it is at this lower level of education that the foundation is laid for an individual's academic endeavors. To get the required knowledge imparted in a learner and for the learner to acquire the appropriate and required skills is an enormous and tasking challenge. A lot of factors have to be considered. Such factors include the learner's intellect quotient (IQ) level, the learner's background, learning styles and individual difference factor. All these differences call for the effective utilization of educational technology resources and varied teaching methods.

In the formulation of the National Policy on Education, the Federal Government of Nigeria took full cognizance and also realized the imperative of utilizing educational technology resources and hitherto stated in the National Policy on Education (2009:51) thus:

- a. Each State and Local Government Authority shall establish Teachers' Resource Centers.... These Centers shall be used for the development and testing of teaching materials.
- b. Federal and State Governments shall establish Teachers' Resource Centers whose activities shall be multidisciplinary. Their functions shall include the enhancement of the study of Languages, Science and Mathematics. They shall provide for the need of special education...
- c. Federal and State Government shall set aside a predetermined percentage of their education funds to support educational research, development and innovations.
- d. Government shall provide appropriate information and communication technology (ICT) facilities to ensure that the benefits of the virtual library permeate all levels of education in Nigeria.

On the 25th of May, 2004, the then President of Federal Republic of Nigeria, Chief Olusengun Obasanjo signed into law a compulsory, free Universal Basic Education Act, 2004 which legally flagged off the UBE programme in Nigeria. With this development, there is no doubt that there shall be population explosion of learners especially at the primary and junior basic secondary level of education. With this explosion, it becomes imperative that educational technology resources must be utilized in the classroom if any effective learning learning is to take place.

Marshall McLuhan from July 21, 1911 to December 31, 1980 as cited in Inyang-Abia (2011:1), predicted in 1962 that "book is no longer the king and the world had long become a global village". That assertion x-rays what obtains in the 21st century World over where knowledge acquisition, information gathering and skills building had long gone digital beyond national and continental borders and far above the crude instruments, means, processes and products of the 20th century. Human attitudes are currently being largely influenced and sharpened by international media, using gadgets, means and strategies designed and developed for information super high ways. This situation equally highlights the indispensability of utilizing education resources especially the ICTS in the present day Nigerian classrooms. This is because according to Ibe-Bassey (2011), ICT is a critical tool in educating, preparing and equipping learners with the required skills for the global workplace. It educates learners so that they can continually adapt to a work world of continuous technological innovations.

Educational Technology Resources Utilization in Classrooms: Implications for Employment and Productivity among Nigerians.

With the effective utilization of Educational Technology resources in Nigeria classrooms, there is no doubt that teaching will be more effective and learning will be facilitated. When this happens, the required and appropriate knowledge will be imparted and the desired skills acquired. When a learner is equipped with the required, appropriate and necessary skills, the person will become gainfully employed and productive. An individual with a skill can be either self employed or employed by another be it individual or government. In whichever way he/she is employed, he/she is

productive and hitherto useful to himself/herself and to the society at large. With the effective utilization of educational technology resources, learners will have easy access to knowledge. Educational Technology resources especially ICTs are regarded as engine for growth and tool for empowerment with profound implications for education, change and socio-economic development. Ibe-Bassey (2011:3) observed that “the widespread use of ICTs generate a need for new digital skills and competences for employment, education and training, self-development and participation in society”.

Challenges Facing the Utilization of Educational Technology Resources in Nigerian Classrooms.

From the foregone, it is obvious that utilizing educational technology resources in Nigerian classrooms in the 21st is an imperative for skill acquisition, employment and productivity. However, there are some inevitable challenges or barriers to such utilization. According to Inyang Abia (2004), these challenges or barriers are based on lack. Such lacks include those associated with awareness, qualified human resources, political support, media education, positive attitude, finance and technical knowhow. Etesike, (2008) equally identified lack of appropriate infrastructure as one of the possible challenges to the effective utilization of educational technological resources in Nigeria classrooms. Ibe-Bassey (2011) identified poor ICT policy and project management strategy as other challenges facing the utilization and integration of educational technology resources especially ICTS into Nigerian classrooms.

Other challenges include decreasing teacher professional development, little or no attention paid to educational technology resources development and increasing demand for financing the cost of educational technology resources in the present day Nigerian classrooms.

Agenda for Action

In view of the imperative of effective utilization of educational technology resources in the 21st century Nigerian classrooms, there is need for the following actions to be taken:

1. There is an urgent need for a clear and concise policy formulation for educational technology resources integration for teacher education.
2. Teachers must perceive educational technology resources integration in teacher education from a positive perspective. At the pre-service, in-service and on-the job training of teachers, the teachers professional development programme must be restructured by the different regulating agencies like the Nigeria Universities Commission (NUC), National Teachers institute (NTI) and National Commission for Colleges of Education (NCCE). Such teachers’ professional development programme should include curriculum and technology integration, computer literacy, innovation, pedagogy, technology and professional development etc

3. Government should re-direct their attention towards the funding of educational technology resources utilization in schools
4. Necessary infrastructure for the effective utilization of these resources should be provided by government and other persons, agencies or institutions that are interested in the educational development of Nigeria. Such infrastructures include electricity, resource centers, computers, communication networks, conducive classrooms, libraries and recreation facilities to mention but these few.

Conclusion

Education is the key to self, economic, social and national development. For any education system to bring about development, the learners must acquire knowledge and skills that will bring about the desired changes in behaviors. This is effective teaching/learning process. The objective of teaching is to help learners to develop their potentials so that they can become functional, pragmatic, productive and useful citizens to their society. For effective teaching/learning process to be actualized there has to be an appropriate selection and utilization of educational technology resource that will facilitate the teaching/learning process, which will enable the learners to achieve the desired objectives. This will ultimately culminate into knowledge and skill acquisition for employment, productivity and self reliance.

It may be necessary to still reiterate at this juncture that due to non availability and lack of access to some of these resources plus other challenges facing the effective utilization of educational technology resources in Nigerian classrooms, Nigeria as a nation is yet to fully embrace educational technology and also to effectively harness the benefits therein. The Nigerian education system can still be re-engineered for employment and self productivity if educational technology resources are fully incorporated into the education system. All hands therefore must be on deck to ensure the full incorporation and integration of educational technology resources into the daily classroom activities of Nigerian education system. When this is done, the products of the 21st century Nigerian classrooms will acquire more skills which will make them to be more knowledgeable and more employable. In turn they will become functional and productive members of the Nigerian society in the 21st century.

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