



Review

Indispensable roles of educational technology resources in achieving education for all: Implications to sustainable peace and security in Nigeria

Received 13 April, 2018

Revised 10 October, 2018

Accepted 23 October, 2018

Published 22 January, 2019

Celine Nwadi Etesike¹

¹General Studies Education (GSE)
Department, Federal College of
Education, Eha-Amufu, Enugu
State, Nigeria.

Author's Email:
etesikeceline@yahoo.com

Tel.: +2348034393591

This paper exposed the indispensability of education in human and national development. The paper equally highlights Education for All as a condition-sine-qua-non for sustainable peace and security. The roles of educational technology and its resources were highlighted especially as it relates to achieving Education for all which coincidentally have positive implications towards achieving sustainable peace and security in Nigeria. The paper went further to highlight the impediments to harnessing the roles of Educational Technology and its resources in Nigeria classroom. Some suggestions were proffered as way forward and they include the following among others: full integration of educational technology resources utilization in Nigeria classrooms. The perennial problem of epileptic electricity supply in Nigeria should be urgently addressed.

Key words: Educational technology, resources, education for All, peace and security.

INTRODUCTION

Education world over has been recognized as a veritable and also an indispensable instrument for development. To achieve any meaningful human and national development, education is a major factor. It holds the key to social, economic, political, technological and most importantly, human development. Education is a universal practice or phenomenon engaged in, in all societies and at all stages for fundamental changes in the intellectual and social outlook of a society or individual.

Education describes the total process of human learning by which knowledge is imparted, valuable skills developed and faculties trained. It is an indispensable opportunity through which both individuals, groups or nations are socially, economically, culturally and technologically

empowered. Education is the instrument for empowering young people with knowledge and skills which provide them access to productive employment (National Planning Commission, NPC, 2013). In recognition of the indispensability of education, the Federal Republic of Nigeria (FRN) through its National Policy on Education (2004) reiterated that education, is the process concerned with the transmission of worthwhile values, skills and knowledge suitable for developing learners' potentials for national development. In agreement to the stand of the Federal Government, Lawal and Wahab (2011) observed that education is the most important instrument to enhance human capabilities and to achieve the desired objectives of social and economic development. Hitherto, Anaduaka and

Okafor (2013) noted that education serves to integrate the individual into the adult society. In this regard, the knowledge, skills, values and attitudes developed, enable the individual to contribute maximally to society and to benefit from society and to find fulfillment in personal growth through every aspect of learning.

Okonkwo (2007) described education as a continuous process through which the society assists its members to understand the heritage of the past and to participate productively in the future. It is the leading out of the unborn powers and potentials of the individuals in the society and the acquisition of skills, attitudes and competencies necessary for self realization and for coping with problems of life. No wonder Okolo (1993) observed that education banishes ignorance and liberally criticizes people's values and life options and therefore redirects societal goals and pursuits. The great philosopher Plato noted that it is education that determines whether man becomes the tamest or the wildest of animals on earth. If man lacks education, Plato says he is the most savage of beasts.

Hence Aboho and O'kwu (2003:44) described education thus:

A process that develops the human mind, the personality, the potentials and imports useful and relevant skills to individuals thereby enhancing the growth of society. In essence education prepares the human mind to enable it cope with future.

Governments world over recognize the need to give education to every citizens of their societies. There is a growing need to eradicate illiteracy and bridge the gap between educated and uneducated. To further embellish the need for education, the philosophy of Nigeria Education lays emphasis on education that provides equal access to education for all citizens of the country at the primary, secondary and tertiary levels both inside and outside the formal school system. According to Inyamah (2015), there are diverse ways of providing access to education for the teeming population of a country especially adults who need to acquire literacy and numeracy, youths who for one reason or the other could not avail themselves the opportunity to attend a conventional school, women whose cultural background inhibit them from acquiring education from a regular school system and lastly, children who are deprived of education as a result of factors of development – poverty deprivation and even physical, mental and or social challenges.

With the great number of people that need to be educated or who need to continue in their education as a result of not completing same due to one personal reason or the other, it becomes an imperative to provide access to education to as many as possible that are willing to be accommodated. To achieve this feat, it becomes necessary to harness the potentials and gains of Educational Technology resources which have proved their worth in responding to critical educational problems that bother on demands of sudden

expansion of teaching, mass human capacity building and assurance of quality in instructional delivery (Inyamah, 2013).

Education for All (EFA)

Education for all is a global movement spear headed by UNESCO. It is a global commitment aimed at providing quality basic education for all children, youths and adults by the year 2015. The movement started by the adoption of world declaration on education for all and its companion framework for action to meet basic learning needs. It was launched at the World Conference on Education for all, held in Jomtien Thailand between 5th and 9th of March, 1990.

The conference was jointly convened by development agencies like United Nations Children's Fund (UNICEF), United Nations Development Program (UNDP), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank. The conference was co-sponsored by an additional 18 governments and organizations and was hosted by the Royal Government of Thailand (Mbajjorgu, 2013). All the participants in the conference endorsed the expansion of learning and pledged to universalize primary education massively to reduce illiteracy rate by the end of the decade. Education for all initiative seeks to achieve the following goals among others.

- Exploring and improving comprehensive early childhood care and education especially for the most vulnerable and disadvantaged children;
- Ensuring that by 2015 all children particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete free and compulsory primary education of good quality.
- Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programs.

From the above goals, it is evident that education is an essential ingredient in human and national growth. Through education, the knowledge and skills to improve health is achieved; high standard livelihood and positive income level is enhanced, good environmental practice is acquired. Consequently, man's security and peaceful coexistence in his/her environment is assured. Unfortunately, the inability of many countries to attain the EFA goals led to another conference in Dakar Senegal in 2005. In Dakar, the participating nations still affirmed their commitment to achieving the EFA goals by 2015.

Nigeria is one of the one hundred and fifty-five (155) countries and one hundred and sixty-four (164) countries that attended the Jomtien 1990 conference on EFA and the Dakar, 2000 EFA forum respectively. Nigeria government since then has taken a number of measures to ensure that it achieves the EFA goals and targets. It is against this background that the present paper advocates for the harnessing of the potentials of Educational Technology resources in Nigeria classrooms which will lead to the achievement of education for all and its consequent

implication for sustainable peace and security in Nigeria.

Educational Technology and its Resources

Educational Technology has been seen as the latest innovation in educational practice. Various attempts have been made in defining the term Educational Technology. Association for Educational Technology (AECT) (2004) defined it as a study of ethical practice for facilitating learning and improving performance by creating, designing and managing appropriate technological processes and resources. To Aniah and Tukura (2011), educational technology is essentially concerned with finding solutions to problems of teaching and learning through the application of appropriate media or modern technologies especially electronic media (hardware and software) devices.

From the above definitions therefore, educational technology is equipped with solutions to problems in education. It tries to not only identify the educational problems to be solved but also tells how to solve the problems and the resources to be used in solving the problems. These resources are one of the highlights of the present paper. A resource is something resorted to for aid or support (Collins English Dictionary, 2011). Educational technology resources therefore are those things, persons, institutions and or systems that are resorted to for aid or support in the teaching learning process. Abimbade (2009) categorized them into five namely people (teachers, counselors) materials (books, charts, films), settings (libraries, classrooms etc), tools and equipment (audio visuals, computers, projectors) and activities (simulations programmed instructions, field trips etc). Some educational technology resources are developed and used in the teaching learning processes; these are called learning resources by design. There are other resources that exist as part of normal everyday use in the world but can be discovered, applied and utilized in the teaching learning process. These ones are called real – world resources and when they are used to facilitate the teaching learning process they are referred to as resources by utilization. Schneider (2014) observed that one of the most fundamental goals of educational technology and its resources is to increase efficiency or effectiveness of current practices, especially at pedagogical level. It also addresses fundamental issues of learning and social organization.

Roles of Educational Technology and its Resources

The indispensable role of technology in teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education. Experts in the field of education agree that when properly utilized, technology holds great potentials and promise in improving teaching and learning in addition to shaping work force opportunities (Aduwa-Ogiegbaen and Iyamu, 2005). There is no gainsaying the fact that when these

resources are adequately made available and effectively utilized in everyday classroom articles, they will facilitate the teaching learning process and will equally make the process less cumbersome and less stressful to the teachers as well as the learners. It makes teaching effective and at the same time facilitates learning there by resulting in the achievement of the instructional objectives. In support of the above position, Salami (1992) observed that “adequate provision of learning facilities and equipment and their proper utilization have always been positively correlated to good performances in examination while poor performances have been blamed on inadequate and ineffective utilization.

Education is a very huge investment and in every investment, returns are expected. When resources are heavily put in an investment and the returns are not commensurate with the heavy resources put in the investment, problems are bound to ensue. The expectation of every stakeholder in education is that whatever resources that are vested in education at whatever level, should be gained in the learning outcome expected in the subject of the investment: the learner. When the expected learning outcome (that is change in behavior in the learner) which indicates that learning has taken place is not realized, the peace of the investor is distorted.

Educational technology and its resources have several benefits in the educational system. They have tremendous positive influence on education generally. They are intended to improve education for the 21st century learners (Inyamah, 2014). Educational technology resources advance not only how students learn but also how teachers teach both effectively and efficiently. They equally determine how educational services are delivered. In the present day teaching learning, emphasis is on learner or student-centered approach to learning. Hence Rosen and Wolf (2011) observed that past researches show that if appropriately implemented especially in a student-centered approach, technology-rich environment can more effectively promote educational goals such as: learning motivation, teamwork and higher order thinking skills in comparison with traditional teaching and learning. This implies that with educational technology, learners can construct their own learning experiences and make some vital decisions on what they learn and how they learn it utilizing the various technologies at their disposal for effective learning. In support of the above position, Wikipedia (2014) posited that educational technology offers more opportunities for extended learning with the internet. With the internet, students can access course materials from the comfort of their homes and engage with numerous online resources available to them using the computer.

With the effective integration and utilization of modern educational technology resources, a learner may not necessarily be taught by an instructor or a teacher physically. The learner simply keys into the learning system unlike in the traditional setting. Consequently, Questia.com (2014) noted that learning resources are made

available globally and without any restriction unlike the traditional course classes that holds at a particular time and in a particular place. Teaching learning process in the present digital age is more of deep learning than surface. It has become more involving, authentic and active. Educational technology and its resources therefore help to support learning instead of controlling it. This is achieved through their ability to design learning tasks or opportunities that enable students find out answers to questions. This is exemplified in the use of computer-based tests to get on-the-spot feedbacks for self diagnosis. In other words, activities are created to keep the learner actively engaged throughout the learning process. This calls for constant practice which culminates into perfection. In other words, whatever skill or knowledge that it acquired in the process, remains permanent and indelible.

Educational technology provides the means for active participation of learners in the teaching-learning process and also helps to widen individualized instruction thereby promoting the development of personalized learning plans on the part of the learners. Wikipedia (2014) observed that with the use of multimedia instructional materials, learners incorporate the knowledge gained in very creative ways. With multimedia, students are allowed to individually progress from the use of lower order skills gained from drills and practice to higher order thinking through the application of concepts creatively and creating simulations.

Modern educational technology, resources create opportunities for online real time applications. Internet websites can be used in teaching – learning processes to carry out academic assignments and home works. Tests and examinations can be posted and taken in websites by teachers and learners respectively. Computer based examinations are known to help in curbing examination malpractice because the portals hosting the examination opens and closes at specified times. Therefore students taking the examination may not have the time to copy, giraffe or carry out other forms of examination malpractice as is the case in traditional classroom examinations. It is also a known fact that examination malpractice is one of the banes of quality of certificates being carried about by graduates of different educational levels in Nigeria. People carry about certificates that they cannot defend when the need arises. Most of our school graduates are unemployable and hence cannot get themselves employed in any meaningful job. An idle mind they say is the devils workshop. These thousands of energetic unemployable youths have to exert their energy somehow and somewhere. Be that as it may, they engage in different types of crimes like kidnapping for ransom, armed robbery, bombings and killings of different and awful dimensions. All these crimes threaten and wreck the peace and security of Nigeria and its citizens.

Roles of Educational Technology Resources in Achieving Sustainable Peace and Security in Nigeria

No nation in the world can actualize its national dreams,

vision and aspiration when there is no peace and security. As a matter of fact, peace and security are among the yardstick for measuring national development. Nigeria as a sovereign nation has witnessed series of crises and breakdown of law and order which had resulted in loss of lives, properties and heavy bloodshed. Some of these crises include that of the former Western Region in 1965, the 1966 military coup and counter coup that resulted in the three and half years bloody civil war of 1967 – 1970. In recent times, Nigerians have seen and experienced very serious and awful socio-political, ethnic and religious crises especially in the northern part of the country. There are the Boko Haram insurgence, the Niger – Delta crisis, the South – East IPOB crises, cases of kidnapping, bombing of lives and properties, chains of assassinations, baby factories and sales of babies, ritual killings, armed robbery to mention but these few. All these crises mentioned above make nonsense of security, peace and development in Nigeria; especially in a country endowed with very huge human and natural resources for its development.

Wikipedia (2009) described peace as a state of harmony characterized by lack of violent conflict and the freedom from fear of violence. Commonly understood as the absence of hostility, peace also suggests the existence of healthy or newly healed interpersonal or international relationships, prosperity in matters of social or economic welfare, the establishment of equality and a working political order that serves the true interest of all. Security has been defined as the condition of feeling of safety from harm or danger, defense, protection and preservation of core values and the absence of threats to acquired values (David, 2006). In a United Nation's study (2012), security is seen as the state of being free from danger or injury. Security as used under this context refers to activities involved in protecting an individual, a country, a building, an institution, a system etc against attack and danger. When an individual or a nation is in a state of security, the individual feels happy, relaxed and tends to put in his/her best in whatever he/she is doing and as a result makes higher achievement. According to Ogbu (2010), without peace and security, anarchy reigns with disorder, confusion and lawlessness. Nationhood and development tend to be crippled in a state of insecurity.

Education has remained and will continue to remain the key to successful living and successful co-existence of citizens and a means to sustainable development of any nation. It is an instrument par excellence for achieving different kinds of development in a nation; social, political, economic, cultural and human resources development. According to Bahd'u'llah (1994), education formal or informal is indisputably the most effective way to shape the values, attitudes, behavior and skills of the individual which make it possible for him or her to function effectively in an integrated world or society. It therefore becomes an imperative that all the citizenry must be properly educated. They should be given an education that will enhance personal development, national consciousness and development as well as environmental awareness so as to

allow the individual contribute his or her own quota towards achieving sustainable peace and security in his/her nation in particular and the whole world in general.

From the foregone, there is no gainsaying the fact that education is a very serious business that must not be played with. Furthermore, it has been proved that advancement in science and technology and their applications in various areas of human endeavor especially in the education sector have yielded rich dividends. These dividends are more pronounced in almost all matters related to the organization and management of the processes and products in education. It is a generally accepted fact among education specialists that when properly utilized, science and technology and their products hold great potentials to advance tremendously, the teaching - learning process. The applied aspect of technology in the field of education, well known as educational technology, with its resources, have tremendous capacity to provide the best possible output in the process of education for both teachers and learners. Educational technology and its resources provide technical guidance and solution to the problems of education. Educational technology resources play effective roles in the communication between teachers and students. They encompass the total teaching and learning process involving such elements as: specification of goals and behavioral objectives, analysis of the characteristics of the learner, selection and organization of the contents or subject matter to be learned, methods and strategies for the presentation of the contents, use of educational media, software and hardware, mass media and communication technique, effective arrangement of learning situations and learning environments, effective classroom control and management and continuous feedback and evaluation of the results.

The ability of man to live satisfactory and worthwhile life depends to a large extent on certain factors such as ability to sustainably explore and functionally derive and utilize the available resources of nature. This fact is achievable through functional education of every member of the society. Functional education according to Etesike (2012) is a practical or pragmatic education rather than a decorative education. It is an education that will yield positive results for both the recipient and the society at large. It is the education that is geared towards the development of the human resources potentials of the society. To realistically live and appropriately face daily challenges prevalent in one's immediate environment, there is need for a functional education for every member of the society. The functional education will prepare and equip every member of the society for an acceptable, profitable and worthwhile life with the appropriate skills that will enhance his/her productivity in the society. To achieve this all important education, it becomes an imperative to harness the indispensable potentials and roles of educational technology and its resources. When this is done, Nigerians will be better equipped to adapt to

changes in the society. Furthermore, Nigerians will integrate into a cohesive community with a common sense of national identity, instead of returning more and more to primordial affiliations for identity, loyalty and security. Nigerians will be better equipped to build a united front, presenting a concerted effort to face challenges of development in an increasingly competitive and globalised world, instead of being busy waging ethnic and religious wars and getting involved in different kinds of criminal activities prevalent among youths in Nigeria.

Factors that Impede the Effective Harnessing of Roles of Educational Technology Resources

There are certain factors that impede the effective harnessing of roles of educational technology resources in Nigeria education sector. According to Inyang-Abia (2004), these impediments or barriers are based on lack. Inyang-Abia went further to identify that such lacks include those associated with awareness, qualified human resources, political support, media education, positive attitude, finance and technical knowhow. Etesike (2008) also identified lack of appropriate infrastructure as one of the impediments to harnessing the potentials of educational technology resources. Ibe-Bassey (2011) identified poor ICT policy and project management strategy as another barrier that impedes full integration of educational technology resources in Nigeria education system.

Other impediments 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 and its facilities in the present day Nigeria classrooms. Education is an expensive and capital intensive venture and therefore adequate funding is one of the basic pre-requisite for its success. Ngada (2003) in giving support to the above position stated that:

Lack of enough funds has prevented the execution of meaningful projects in most of the education institution in Nigeria. Also the attitude of Nigeria administrators has affected the wise utilization of funds sent to such institutions. Most of the funds sent to such institutions end up in the pocket of some few, neglecting the project for which such funds are meant.

Other impediments to harnessing the roles of educational technology resources include dearth of infrastructure, inadequate classrooms and offices, laboratories for teaching and research, shortage of books and journals and most importantly problem of electricity supply which has become a perennial problem in Nigeria.

Be that as it may, with these impediments to the effective harnessing of the potentials of educational technology and its resources, the realization of Education For All would be a mere myth not a reality.

Conclusion

Education is a vital ingredient and the key to self, economic, social, cultural, technological and national development. Be that as it may, there is an urgent need to avail every member of a nation an opportunity to be educated. For any education to bring about development, the learners must acquire knowledge and skills that will bring about desired change in behavior. This is effective teaching learning process. For this type of teaching learning process to be achieved, there has to be appropriate selection and utilization of educational technology resources that will facilitate teaching and learning and consequently enable learners to achieve the desired objectives which will culminate into knowledge and skill acquisition for gainful employment, productivity and self reliance. This will invariably bring about peace and security in Nigeria and will reduce to its barest minimum all forms of criminal activities that threaten and wreck the peace and security of Nigerians. Internal security that is vital for national progress, development and advancement of nations will be achieved in Nigeria.

Suggestions

Given the indispensable roles of Educational Technology and its resources in classroom instructional delivery in particular and the teaching learning process in general, the following suggestions are therefore proffered as ways of maximizing the roles of Educational Technology resources in Nigeria classrooms:

1. Teachers and significant others in the education sector should be trained and retrained in the effective utilization of educational technology resources in schools.
2. Government and stake holders in education should establish a special trust fund for the provision of modern teaching learning facilities in schools at various levels.
3. There should be full integration of Educational Technology resources utilization in Nigeria Classrooms.
4. Epileptic electricity supply in Nigeria is a perennial problem that should be addressed with all seriousness. This is because without electricity supply, effective utilization of most modern teaching facilities becomes unrealistic because most of them are electronic devices that cannot be used without electricity.

REFERENCES

- Abimbade A (2006). Principles and practice of educational technology. Ghana: Woeli Publishing Services.
- Aboho DA O'Kwu E (2003). Education in Nigeria: Challenges for the future. In Multidisciplinary J.Res. Develop. (MULJORED). 1 (1), 2.
- Aduwa – Ogiegbaen SE, Iyamu EOS (2005). Using ICT in secondary schools in Nigeria: Problems and prospects. In Educ. Technol. and Soc., 8 (1):104 – 112.
- Anaduaka US, Okafor CF (2013). The Universal basic education (UBE) programme in Nigeria: Problems and Prospects. Int J. Educ. Res. Rev., 2(3), 42 – 48.
- Aniah A, Tukura CS (2011). Educational technology: the imperative of ICT improving tertiary education in Nigeria. In Proceedings of the 32nd international conference of National association of educational media and technology (NAEMT). 19th – 23rd September, 2011.
- Association for education and communication technology (AECT) (2004). Meaning of educational technology. Washington DC: AECT definition and terminology document #num 9.0.
- Bahd'u'llah International Community (1994). Role of educational media and arts in social development, statement library. Retrieved from <http://www.thewillingnessnigeria.com/general>. 21/6/2012.
- Collins English Dictionary (2011). Glasgow: Harper Collins publishers.
- David B (2006). The supreme court and Ladoja's case. The Nigerian village square.
- Etesike CN (2008). Harnessing ICT resources for effective implementation of UBE scheme in Nigeria. A conference paper presented at the 9th annual national conference of NARD, Abuja, 6th – 10th, October.
- Etesike CN (2012). The imperative of educational technology resources utilization in Nigeria classrooms for employment and productivity among Nigerians in the 21st century. A conference paper presented at the 14th annual national conference of NAFK, Auchi, 12th – 16th March.
- Federal Republic of Nigeria (FRN) (2004). National Policy on Education. Lagos: NERDC Press.
- Ibe-Bassey GS. (2011). Human capacity building for ICT integration in teacher education in Nigeria. A lead paper presented at the 32nd international conference of NAEMT, Owerri, 19th – 23rd September.
- Inyamah CK (2013). The place of open and distance learning in achieving quality education for all. In T J. resourcefulness and Distinction (JORESDIS), 6 (1):65 – 75.
- Inyamah CK (2014). Bridging the gaps in learning: the role of modern educational technology tools. In Knowledge review, 31 (2):109 – 114.
- Inyang-Abia ME (2004). Essentials of education technology. Calabar: MFAM Services Ltd.
- Lawal NA Wahab TI (2011). Education and economic growth: the Nigerian experience. In J. Emerging Trends in Economics and Management 2 (3):225 – 231.
- Mbajiorgu NM (2013). Education for All: Progress, problems and prospects. In J. resourcefulness and distinction 6 (1):1 – 20.
- National Planning Communication (2013). Nigeria vision 20 – 2020. The first national implementation plan, Vol. II.
- Ngada, A. J. (2003). Challenges and future of teacher education in Nigeria. In Multidisciplinary Journal of Research Development. 1 (1). 13th March.
- Ogbu SC (2010). Education for Democracy security and

- national development: implications for technology and vocational education in Nigeria. In ESUT J. Education (ESUTJE). 5 (1): 124 - 132.
- Okolo CR (1993). Education and Nigerian values: a companion for students. Enugu: Cecta Nigeria Ltd.
- Okonkwo H (2007). Primary education and challenges of globalization. In Gombe Journal of Educational Studies, FCE(T) Gombe, 1, (1):225 - 226.
- Questia.com (2014). Educational Technology. Retrieved 11/02/14.
- Rosen Y, Wolf I (2011). Bridging the social gap through educational technology using the time to know digital teaching platform. Educ. Technol. Sept. - Oct., 2011.
- Salami SA (1992). Secondary education program under the new NPE: an assessment based on WAEC SSCE. A paper presented at WAEC monthly seminar. August, 1992.
- Schneider DK (2014). Educational technology. Retrieved from Edutech wiki, 11/02/14.
- United Nation Organisation (UNO) (2012). Importance of peace and security Education highlighted. Retrieved from <http://www.un.org/news/press/docs/2001/gashc3628.doc.htm>. Retrieved 9/8/2012.
- Wikipedia (2009). Peace and security <http://en.m.wikipedia.org/wiki/www.savethechildren.Net/media/publication--/annualrep2006pdf>. Accessed 01/10.
- Wikipedia free Encyclopedia (2014). Educational Technology. Retrieved from [http://en.wikipedia.org/wiki/Educational technologies](http://en.wikipedia.org/wiki/Educational_technologies).