ACTUALIZING THE VISION OF UNIVERSAL BASIC EDUCATION (UBE) THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN NIGERIA

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Abstract

The world is currently in the age of Information and Communication Technology (ICT) with its internet and other adjoining capabilities. If Universal Basic Education (UBE) is to actualize its vision in Nigeria, there's need for the inclusion of ICT in UBE programme. The paper therefore is aimed at examining ICT in the actualization of UBE vision. Thus, the paper focuses at the concept of Basis Education, Universal Basic Education UBE in Nigeria, Information and Communication Technology meaning, nature and type, ICT in education, the need for ICT in UBE ICT and UBE staff development and training, how to apply ICT in UBE, benefits of applying ICT in UBE to students and advantages of applying ICT in UBE to the teachers. Finally, the following recommendations were made: Information and Communication Technology ICT laboratories should be built in all UBE schools, All UBE teachers should be computer literates, both teaching and non teaching staffs of UBE should be exposed to training and retraining, seminars and conferences, and finally, ICT should be made a compulsory course in UBE programme.

Education has been identified as a dynamic instrument of change; hence, developed countries and those aspiring to develop have adopted it as an instrument par excellence for effecting national development. It is against this backdrop that the Federal Government of Nigeria is committed to the integration of the individual into a sound and effective citizens and in the provision of equal educational opportunities for all citizen of the nation at the primary, secondary and tertiary levels, both inside and outside the formal school system (Zwingina, 2000:28).

It is in accordance with this view that, Akpan (2002:34) observed that throughout the ages, education has been recognized as the instrument for national development and nation building. It is needed for the transformation of the nation economically, socially, politically and culturally. Nigeria as an independent nation has recognized and realized the value of education to the growing child and the need to train her citizens to be useful individuals to themselves and the society. Thus, education can be viewed as a process of assisting the individual to attain the fullest life he is capable of living. It involves training people to enable them to acquire new knowledge, skills, information and change attitudes or behaviours in order for them to adjust and be more functional in the environment.

Nigeria is predominantly an illiterate society and for the masses to contribute to the development of the country, education is needed as purge to expel all forms of ignorance likely to hinder effective national development (Anyanwu, 2000:56).

For the masses to contribute to the development of Nigeria as a developing country, education is needed to expel all forms of ignorance likely to hinder effective national development and nation building. It is in this view that, Shokumbi (1999:34), stated that, it is through education that ignorance is eliminated,

skills for productivity, hardship and comfort are acquired. The Nigerian educational policy emphasizes functional education aimed at eliminating illiteracy and poverty and promoting progress, growth, development and self-reliance. The Nigeria government in an attempt to eradicate illiteracy and enhance functional education for the citizenry had launched several education programmes in the past decades. Notable among these are the Universal Primary Education (UPE) in 1976 and later the Mass Literacy Programme (MLP). The UPE was introduced with the aim of ensuring that all children of school age would be educated thereby attacking, literacy at the grassroots. But no sooner was the programme started than it faced several setbacks.

The UPE implementation process became difficult because of the haste and adhocism that plagued the planning phases. For instance, the projection and forecasting of expected pupils enrolment was inaccurate. Instead of 2.3 million enrolments expected, 3 million children enrolled in primary schools across the country. This gives an underestimation of 300 percent (Fafunwa.1991:24).The increase in enrollment compounded the problems for the implementation of the scheme, which indicate shortage of teachers, classrooms equipment and facilities. As a result of these, the laudable objectives of the scheme could not be achieved and the needs, aspirations and expectations of the Nigerian society were unfulfilled because of improper and inadequate planning. It is for these reasons that the federal government of Nigeria decided to launch UBE on the 30th September, 1999, under president Olusegun Obasanjo. On this premise, this paper therefore focuses on actualizing the vision of UBE through ICT in Nigeria. With this, the paper explain the concept of basic education.

Basic Education

The major trigger activity for Basic Education was the world Conference on "Education for All" which was held in Jomtien. Thailand from 5th to 9th March, 1990. The conference, which was organized by the World Bank, UNDP, UNESCO, and UNICEF, came up with a document entitled "World declaration in education for all and framework for action to meet basic learning needs". Since this document became a sort of blueprint for all countries of the world, Nigeria was encouraged to step up educational activities to achieved education for all. One of such activities was the Policy Analysis of Basic Education in Nigeria, which was carried out nationwide from 1991 to 1993 with one of the authors as one of the consultants (Anyanwu, 2000:34).

By definition, Basic Education means the type of education in quality and content that is given in the first level of education. This concept changes from country to country. In Nigeria, Basic Education was equated with six (6) years of primary schooling. Now, the concept is expected to cover in addition three years of Junior Secondary School. There is therefore, the need to look at the concept UBE in Nigeria.

Universal Basic Education UBE in Nigeria

The Universal Basic Education UBE programme of the Federal Republic of Nigeria, which was formally launched by President Olusegun Obasanjo on 30th September, 1999 is aimed at achieving the following specific objectives:

i. Developing in the entire citizenry, a strong consciousness for education and a strong commitment to its vigorous promotion.
ii. The provision of the UBE for every Nigerian child of school-going age.
iii. Reducing drastically, the incidence of dropout from the formal school system

(through improved quality and efficiency).

iv. Catering for the learning needs of young persons, who for one reason or another, have had to interrupt their school, through appropriate forms of complementary approaches to the provision and promotion of basic education.

v. Ensuring the acquisition of the appropriate level of literacy, numeracy, manipulative, communicative and life skills as well as the ethical moral and civic value needed for laying a solid foundation for life-long learning (FRN, 1999).

It is worthy of note that the adoption of UBE in Nigeria is in keeping with the requirements of the provision of the 1999 constitution of the Federal Republic of Nigeria – Section 18, which states:

"…Government shall direct its policy towards ensuring that there are equal and adequate educational opportunities at all levels…

The section went further to state that the Government shall eradicate illiteracy and to this end, shall as when practicable provide:

i. Free compulsory and Universal Basic Education.
ii. Free Secondary School Education.
iii. Free University Education.
iv. Free Adult Literacy Programme.

Basic Education, according to the Jomtein Declaration and Frame work for Action in Education for All, is not defined in terms of years of schooling, neither is it limited to formal schooling. The Jomtein conference sees education in its broadest sense as a close articulation of the formal, the non-formal approaches and mechanism of awakening an all-round development of the human potentials. The broad aim is to lay the foundation for life-long learning through the inculcation of appropriate learning, self awareness, citizenship and life skills.

According to Coombs (1974:14),

> *A good educational planning in relation to UBE can take its cure from the application of rational and systematic analysis to the process of educational development with the aim of making education more effective and efficient in responding to the needs and goals of its students and society for national development and nation building.*

Following the Jomtein recommendations, that basic education should not be considered as a static affair, but as a process to be determined by every nation according to its evolutionary development needs. For Nigeria therefore, basic education encompasses the following:

Programme/initiative for early childhood care and socialization.

i. Education programme for the acquisition of functional literacy numeracy and life skills especially for adults (person aged 15 and above).Special programme for nomadic population.
ii. Out of school, non-formal programme for updating the knowledge and skills of persons who left school before acquiring the basic needs for life- long learning.
iii. Non-formal skills and apprenticeship training for adolescents and youths who have not had the benefit of formal education.
iv. The formal education/school system, from the beginning of primary education to the end of Junior Secondary School.

If UBE programme is intended to be universal, free and compulsory, it implies that appropriate types of opportunities will be provided for the basic education of every Nigeria child of school age, that parents have an obligation to ensure that children in their care avail themselves of such opportunities, and that

sanctions will be imposed on persons, societies, or institutions that prevent children, adolescents and youths from benefiting from UBE for the purpose of nation building.

Based on these, the universal aspect of UBE programme suggests the following:

i. Inclusiveness, implying that persons in all manners and conditions of physical, spatial and psychological existence will benefit from the programme.
ii. Special attention to special groups, implying that the special needs of all sectors of the population will be taken into consideration.
iii. Encouragement for the provision of facilities for early child care and socialization with due attention given to the needs of specific social groups and geographical zones of the country, bearing in mind the need to lay a solid foundation of life-long learning right from early childhood.

For the government to achieve the objectives of the UBE programme as stated above, it intends to make vigorous efforts, to counter the factors which are known to have hindered the achievement of the goals of the UPE programme two decades ago. It was envisaged that more appropriate approaches would have to be developed for improving the state of the following:

i. Public enlightenment and social mobilization for full community involvement.
ii. Data collection and analysis.
iii. Planning, monitoring and evaluation.
iv. Teachers: their recruitment, education training, retraining and motivation
v. Infrastructural facilities.
vi. Enriched curriculum
vii. Textbooks and instructional materials
viii. Improved funding and
I. Management of the entire process.

Based on the above issues about UBE there is need to look at the concept ICT.

Information and Communication Technology ICT

Meaning, Nature and Type

Information and Communication Technology (ICT) is basically an electronic based system of information transmission, reception, processing and retrieval which has drastically changed our way of thinking, life, and the environment in which we live (Waslham, 2001:45). It is a composite term which embodies three important concepts. For proper understanding, one must understand these concepts. Information means many things to many people depending on the context it is used. It is defined as facts told, heard or discussed (Mccain,2000:12). Information may be categorized as a processed data, image and voice. It is anything whatsoever that is capable of causing human mind to change its opinion about the current state of the real world. Communication on the other hand refers to the transfer or exchange of ideas, facets, thoughts, opinions, attitudes and beliefs between people. It involves a sender, a receiver, a code and a language that is understood by both the sender and the receiver. It is not a one – way affair. There must be a sender to transmit the message and receiver to make appropriate decisions on how the rest of the exchange should continue (Faye, 2000:19).

Technology is a term which has different meanings depending on the context it is used. It is a scientific study of mechanical arts and applied science. In its simplest form, technology refers to the use of scientific knowledge to invent tools that assist human being or institutions to overcome environmental hazards and impediments in order to create comfort, hence in this regard, technology refers to things like the computer, telephone, GSM handset, television radio etc.

A combination of these terms, Information and Communication Technology could be seen as the use of technology to aid, capture, analysis, manipulate, store, distribute and communicate information to promote and advance the pattern and processes of information channelization. Information and communication technology and information technology are similar concepts that can be used interchangeably. They find expression in voice mail, CD-ROM, e-mail, internet and other forms of telecommunication technology. Telecommunication seems to be attracting the greatest investment and most frantic political attention (Combrink-Reuters and Piepers, 1999:56).

The advent of internet seems to have revolutionized the entire concepts of ICT. Internet offers exciting new opportunities to all countries of the world. The positive aspect of it is that it is inexpensive and even becoming less expensive. New satellite technology makes it possible for telecommunication to be introduced at much lower cost with less capital. The internet makes it possible for individuals, institutions to be active consumers of information. In this issue there is the need to look at how ICT is apply in education.

Information and Communication Technology in Education

In trying to make Nigeria become one of the industrialized nation come 20:20, twenty strategies were outlined as a guide. The fifth strategy was stated thus: "Restructuring the education system at all levels to respond effectively to the challenges and imagined impact of the information age and in particular, the allocation of special information technology development fund to education at all level (Federal Republic of Nigeria, 2004).These strategies are targeted at building of knowledge and skills in UBE through ICT. In order to achieve this, the following must be adhered to strictly: making the use of ICT mandatory at all levels of educational institutions, development of ICT curricular in primary, secondary and in all UBE programmes and the use of ICT in all distance education centers. Also, study grants and scholarship on ICT for UBE teachers, training and retraining of UBE teachers, training the trainer scheme for national youth service corps members, ICT capacity development at zonal, state and local levels of education authority.

It is in view of this that, Faye(2000: 45) observed that, learning through ICT in UBE will entail the development of national relevant content software for information use as such the government should recognize the need to create high quality content and software for UBE programme.

According to Oyedepo (2003:14), science education of which ICT education is a part, is a means of enriching an individual/ students knowledge, developing his full personality and preparing the person to undertake specific tasks which are essential to the immediate environment and beyond. Science and technology education have become such an indispensable knowledge in the 21st century that its introduction in UBE programme will inculcate in the students and teachers the spirit of new scientific, information and communication skills which will be involved in acquiring the technical know – how in information generation in UBE programme. In this premise, the paper focuses on the need for ICT in UBE programme.

The Need for Information and Communication Technology ICT in Universal Basic Education UBE

From the cardinal experience from UPE, it can be inferred that if ICT is introduced in UBE the setback or fate that has befell UPE in 1976, about poor implementation of planning, increase of population figure, inaccurate

projection and forecasting of expected pupils enrolment, which lead to shortage of teachers, classrooms equipments and facilities will be technically corrected and guided against in UBE programme. The main reasons is that most of the work done through manual labour in UPE will be technically done or handle through ICT equipments in UBE.

Information and Communication Technology in Universal Basic Education is designed to develop skills, attitudes, understanding, information and knowledge needed to make progress in research and learning. Its relevance to UBE in general is inseparable and complementary. According to Mohammed (2004:12) Information and Communication Technology ICT are tools that will facilitate the production, transmission and processing of information which includes computers, internet and telecommunication facilities, network/ telephone system to students in UBE programme.

Information and Communication Technology ICT and UBE Staff Development and Training

Universal Basic Education UBE must look forward prospectively in staff development and training. Different level of development and training is required for UBE staff. Much of this support will take the form of pre and in –service training, workshops and seminars. The aim o these is to assist them cope with the changes of skills which the new technology require and take full advantage of this in their area of endeavors. This will create the skills for retrieving and using information accessed through technology and also create easy work to the staff. Therefore, the training of staff for the use of ICT equipment must be done by the government, since ICT venture is highly capital intensive and highly profitable. The government has a lot of financial responsibility to fulfill for it development if the dream for the realization of UBE programme is to be accomplished.

The world today counts on the new ICT in facilitating the process of democratization of access to information and knowledge. The introduction of ICT in UBE programme will enable the students to have access knowledge and information through internet, television, satellite and cable network. This help to build up an open educational system in UBE where learning contents can be delivered to the learners wherever they may be. Apart from this, it will also involves interpreting of information to make meaning out of it in the UBE programme.

Application of Information Communication Technology ICT in Universal Basic Education UBE

Information and Communication Technology ICT is moving students from chalkboards and textbook to complete interactive media, complete systems of distance learning, e-learning and virtual schools with customized spacing for individual students. (Routherhan, 2006:245).So, UBE teachers need to be alert and well vested in the use of ICT equipments. Cowley (2007:89), outlined the under listed as the ways teachers can use ICT in UBE programme: lesson and scheme planning, understanding research result for lesson, accessing a huge range of educational resources and different types of information on the internet, creating differentiated worksheets, keeping records of students grades, keeping records of textbooks and other resources, writing reports and other communications, communicating with students, teachers and schools via e-mails, using digital camera and video to make lessons move engaging and to create impressive displays, working with an interactive whiteboard in the classroom and using a website to enhance teaching.

In accordance with this, Cowley's (2007:90) advised on how teachers on UBE

programme can apply ICT in teaching and learning. It is no doubt laudable, but the 45 minutes allocated for the teaching of each lesson period is not enough. For example, the use of internet, worksheets, digital cameras and video as well as websites as the author mentioned above would suffer a lot of limitations as a result of time constrain. However, Cowley's (2007) good recommendations for UBE. This are:

i. Set out rules for handing ICT equipment right from the start before
ii. allowing student to actually use it. This will help them focus their attention fully on what is being taught.
iii. Explain carefully to the children how delicate computers and other ICT equipment are.
iv. Spend at least one or two hours with a class teaching the lesson about the correct use of word processor, spreadsheets etc.
v. Students should also be encouraged to find different ways of sharing the computers where the supply is not enough. They should learn to work in groups.

All the above are very good tips on how to apply ICT in UBE be it in the primary, secondary or even higher institution of learning. This takes us to the benefits of ICT to students in UBE.

Benefits of Applying ICT in UBE to Students

According to Rainie (2006:89) the teenagers when compared to the older generation are "digital natives in a land of digital immigrants." This implies that they make use of ICT more than the adults. This assertion is supported by the Pew Researcher Centre (2002:90). Who observed that 89 percent of students use e-mail, 84 percent get information on movies and television shows, 81 percent play games, 76 percent get news, 57 percent hunt for schools, 51 percent download music, 43 percent buy products and 31 percent download videos.

The above findings show how involved teenagers are in the use of the internet. The significance of this is that the designers of UBE programme could make use of these facts in designing UBE curricular by making UBE students active learners of ICT.

More so, ICT increases student interest in academic ICT has the potential to completely reconstruct what we use to think of as schooling, learning and teaching, ICT will help students to understand the product and processes of technology.

The National Research Council Brain, and Cocking (2000), found that technology will assist students to: learn by doing, receive feedback, refine understanding, build new knowledge, visualize difficult concepts, access extensive collections of information, grape and grapple with real world problems, and an active environment for learning.

Aside the above advantages of technology to students in UBE the New Media Consortium (2005) revealed several new development in the inculcation of ICT in UBE programme. These include:

i. Intelligent searching providing efficient and effective ways to find and organize information, from individual student activities to school wide collecting and cataloging.
ii. Education gaming, offering new games and concepts providing more interactive environment across more fields of study.
iii. Social network and knowledge webs: providing easier communication means within and among students/faculty teams in the construction, use, and testing of knowledge in UBE.

The use of ICT in UBE will assist students to learn with ease. Information could be gathered with absolute ease, modern discoveries could be identified easily even by anybody that

lives in the remote part of the country provided there is network coverage and finally for the UBE to achieve it aims and objectives.

Advantages of Applying ICT in UBE to Teachers

The application of ICT in UBE will not only be beneficial to students alone but to teachers as well. According to Cowley (2007;67) the application of ICT in UBE will help the teachers in the following ways:

i. Ability to create, edit, save and change worksheets, lesson plans and other computerized resources.
ii. Ease with which a single worksheets can be differentiated for children with different learning needs.
iii. Motivational qualities of resources that were presented.
iv. Generally better than behaviour and focus that students have when working on the computer.
v. Ability to keep, change and work with data and records for instance, assessment records.
vi. Opportunity to calculate scores and on with ease using spreadsheets.
vii. Time- saving nature of writing reports on the computer, as well as its more professional looking presentation.
viii. Huge store of knowledge and information available via the internet.

ICT is useful in achieving cardinal objectives UBE to students and teachers. It is used in conducting researches and improving knowledge to students.

Conclusion

Without any shadow of doubt, it must be realized that, the entire world is going online. Institutions as well as nations have to embrace ICT as a strategic imperative for national development and take cognizance of its numerous benefits. Making ICT available in UBE via the internet, obviously will overcome some of the problems of obtaining information or data that are identified as relevant in UBE. For the success of UBE the government has to provide considerable resources via finance, adequate connectivity to the Global Information Infrastructure (GLL) etc. ICT application in UBE programme that will address issues of research, evaluation and assessment should be well looked into since they are critical to ensure success in UBE.

In addition to the above, certain prerequisites, such as reliable power supply to operate computer, a well functioning telecommunication network to transmit information - data, as well as staff training and development centers should be established in all UBE schools. By so doing UBE will certainly achieve it vision.

Recommendations

Based on this, the following recommendations are:

i. Information and Communication Technology laboratories should be built in all UBE schools. The laboratories should have sufficient computers, electronic mail, computerized databases and other software programmes, laser disks, hypermedia, scanners and other ICT equipment to aid UBE programme.

ii. All UBE teachers should be computer literate and should be able to operate any ICT equipment with absolute ease.

iii. For full actualization of UBE, government should improve and provide the necessary infrastructure such as electricity, telephone/network system to enhance practical experience.

iv. Government should provide the required equipment in the UBE programme,

example, man power and finance for the maintenance of ICT equipment in all sectors

v. For the actualization of UBE vision through ICT all UBE staff, both teaching and non – teaching should be exposed to training and retraining exercises, seminars, conferences and induction courses in ICT programme.

vi. There should be a regular and constance UBE curriculum review or innovation, so that Information and Communication Technology ICT will be made a compulsory course in UBE programme.

References

Akpans, C. P. (2002). Financing university education in a depressed economy. *Nigeria Education Journal, 2(2), 59 – 66.*

Anyanwu, C. N. (2000, April). *Practical strategies on making UBE the people's programme.* a paper presented at UBE local policy dialogue held at in university of Ibadan, 10th -13th .

Coombs, P. H. (1974). What is educational planning for the information age. *Interdisciplinary Educational Journal* (INTEJ), 4 (2) 12 -16.

Combrink, R. (1999). The use of information system in research for the acquisition of knowledge. the issues of the Nigeria policy for information technology. *International Education Journal university of Lagos.* 3 (5) 6 - 10.

Cowley, S. (2007). *Guerilla guide to teaching of information communication technology*. New York. Continuum International Publishing Group.

Faye, M. (2000, March). *"Developing national information and Communication infrastructure (NIC) policies and plan in African"* Paper presented during the Nigeria (NICI) workshop, Abuja, Nigeria, 28th – 30th .

Federal Republic of Nigeria (2004). *National Policy on Education.* Abuja: Nigeria Federal Government Press.

Mohammed, M.S. (2004). Technology and science education for self-reliance in a democratic society. *Minma journal of education studies 2(3) 27 – 33.*

Mccain, T (2000). Windows on the future: education in the age of information and communication technology. Isa – Kaita: Kasina State. *International Journal of Education.* 4 (2) 14 -17.

Mckenzie, J. (2000) *Beyond technology and communication. Bellingham:* Washington. Finagil printing Press.

National Council for the social studies (1993, September). *"A vision of powerful teaching and learning in the social studies building, understanding and civil efficiency"* a paper presented on the national conference organized by the school of Arts and Social Sciences. FCE, Obudu. 23 – 213.

New Media Consertrium (2005). *The horizon report*. http:/nme.org.

Oyedepo, D. (2003, August). Nigeria technology policy: is it adequate in the globalizing world? paper presented at the annual African technology policy studies (ATPS) network seminar (NISER). 8^{th} -11^{th} .

Pew Research Centre (2002). *Study of students use of internet,* www. Pewinternet.org.

Rainie, I. (2006). *Life outline on information and communication technology.* unpublished manuscript presented to the public libraries association. University of Boston.

Routherham, A. & Piepers, E. (2006, April 7). Virtual schools real innovation. *Times, 8*: 9 -10.

Walsham, G. (2001). *Making a world of different information and technology in a global content.* New York: John Wiley and Sons publishing com.

Zwingina, J. (2000, May 22). Universal basic education is a fundamental review of educational policy: *The Punch, 4:* 7-8.

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