

ELECTRONIC EDUCATION (E- education) AND ITS EFFECT IN DISTANCE LEARNING PROGRAMMES IN NIGERIA

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ABSTRACT

This paper examined the relevance of electronic education, its effects on effective actualization of distance learning programmes in Nigeria by defining the concept of electronic education in improving standard of the learning process. It also discussed the problems of this form of education. An overview of the National Policy on Education (NPE) on electronic education and its initiatives in Nigeria educational system was discussed. Also, it elaborated on the importance of virtual library and ICT in effective distance education programmes and concluded by suggesting the way forward in improving electronic education system for advancement of distance education in Nigeria.

Key words: E-education, Distance learning, Information and Communication Technology, National Policy on Education, Virtual library.

INTRODUCTION

Realizing the potential of education as an instrument for modernisation of their economy, African countries invested heavily in expanding their educational systems after achieving political independence. Distance education lends itself to technological and scientific advancements and meets the diverse human and social needs. It incorporates into its basic correspondence teaching methods, educational broadcasting, audio-visual aids, and recently telecommunication and computer based technologies. Information and Communication Technologies (ICT) have become key tools and had a revolutionary impact in our country and the world, as well as on how we live.

This observable fact has given birth to the contemporary e-commerce, e-government e-medicine, e-education and etc. Technology is having a revolutionary impact on the educational process globally. Ikemenjima, (2005) stated that, this revolution is not widely spread and needs to be strengthened to reach a large percentage of the population. The Universal Basic Education if meaningfully implemented is expected to care for the failure of Nigerian education programmes and the use of appropriate technology in educational process. Stakeholders must insist on the best standards and approaches to ensure effective technologies for education service delivery in the processes of impacting knowledge and skill.

New technologies and techniques engendered by information and communication revolution now allow for producing and saucing of knowledge and impacting of skills. The new technologies allow educational instructors to move into the role of guiding and assisting students to gain the skill required to acquire and utilise knowledge available in various forms all over the world. The positive impact of technology, when carefully selected and adequately utilized on process of acquiring knowledge and skill has been established. Onyelemezi (1988) is of the view that instructional materials otherwise known as educational technology help the teacher convey the intended message effectively and meaningfully to the learners so that the learner receive, retain and apply the experiences gain to reach overall educational goal. Okwo, (1995) explain that, the utilization of electronic instructional material by teachers arouse student's interest curiosity motivation, imagination and stimulation as well as enhance retention of what is learnt. This is aimed at promoting student's knowledge and skills.

THE CONCEPT OF E-EDUCATION

E-education is electronic mode of knowledge and skill transmission, this does not necessarily involve physical contact between teacher and student. The concept computerized teaching and learning have given birth to computer-aided instruction(CIA). This process represents the combination of both knowledge and skill impartation. Access to electronic materials through the internet is flexible, ensures broad feasibility and accessibility of educational opportunities. Ikemenjima (2005) stated that the internet is an effective system of instruction, and learning materials can be accessed irrespective of time and space.

PROBLEM OF E-EDUCATION IN NIGERIA

Information and Communication Technology (ICT) plays a prominent role in supporting process of acquiring knowledge and skills as well as National development efforts in Nigeria. There are problems to the effectiveness and better implementation of e- education. Some of these problems as stated by Mac- Ikemenjima(2005) include:

1. Inadequate ICT infrastructure such as computer hardware and software and bandwidth/ access.
2. Lack of skilled manpower, to manage available systems and inadequate training facilities for ICT education at all educational level.
3. Resistance to change from traditional pedagogical methods to more innovative, technological based method of knowledge and skill acquisition , by both students and academics;
4. The educational system is underfunded, therefore, available funds are used to solve more urgent and important needs by the institutions putting aside the technological problems to lay low.
5. The over-dependence of educational institutions on government for 100percent funding has limited institutions ability to collaborate with the private sector or seek alternative funding sources for E-education initiative.
6. Ineffective co-ordination of all the various ICT for education initiatives.

The above listed is not wide-ranging but represents the major problems facing e-education in Nigeria. If the above discussed problems are being addressed, there are chances that E-education will thrive in Nigeria and improve dramatically. We also believe that this will have larger, much desired impacts on development and modernization of Nigeria as a society.

NATIONAL POLICY ON EDUCATION AND OVERVIEW ON E- EDUCATION

The section on Educational service in the National Policy on Education in Nigeria represents Educational Technology (1981). This means that it cannot be said that there is no place for ICT in Nigeria's Educational Policy. Educational technology can be viewed among other things as an extension of Educational process which is an instrument for e-education. The Nigerian educational sector is guided by the National Policy on Education and several coordinating mechanisms have been put in place to enforce and ensure that the highest standards are maintained in curriculum, infrastructure and skilled manpower requirements.

The primary and secondary schools are directly under the ministry of education either at the state or federal level, the universities are under the National Universities Commission (NUC), the polytechnics are under the National Board for Vocational Colleges and Technical Education (NABTECH), and the National Commission for Colleges of Education (NCCCE) oversees the activities of the Colleges of Education. The institutions under each of these coordinating mechanisms are enormous and diverse in many respects.

DISTANCE LEARNING IN NIGERIA

The National Policy on Education is overt in referring to what is now known as Open and Distance Learning (ODL), and emphasized education for all and lifelong learning. It stated that most instruction of change in any society is education. Willis (1983) described distance education as the learning process that takes place when a teacher and students are separated by physical distance and technology is used to bridge the instructional gap. Distance learning did not just started in Nigeria, it has been in existence since 1940s as correspondent studies. When Nigerians got enrolled in correspondence colleges in Great Britain, the main mode of instructional delivery was printed materials. Distance learning variously known as "correspondent study, home study, off campus study and etc.," is the provision of education by a mode other than the conventional face to face method.

Federal Ministry of Education (2002) described distance learning as "any form of learning in which the provider enables individual learner to exercise choice over any one or more of a number of aspects of learning". Also it could be "an educational process in which a significant proportion of the teaching is conducted by someone in space and in time of the learner". In this type of system there is freedom from restriction and rigidity which usually characterise the conventional system of learning. The distance learning provides opportunity for student to be responsible for the pace and completion of their study, the lecturer does not need to be present in class always. He makes contact with learners through a variety of communication medias.

DISTANCE LEARNING AND EDUCATIONAL DEVELOPMENT IN NIGERIA

Education and training have to be a life-long process, if they are to be effective and remain aware of current theories and practice of individual field of specialization. The emergence of distance learning in Nigeria is to help in improving the skills, values, attitudes, knowledge, that are relevant for the development of citizen of the nation. The development of interactive computer mediated communication systems in particular, provides education institution with a means of

both delivering education to individuals when and where they want it, and being receptive to students view and queries. Distance learning must be seen as part of national struggle for security, national development, social justice, literacy, and economic prosperity.

Bishop (1986) stated some advantage of distances learning the roles it plays in any society.

- Distances learning is probably the most economic method of education. No extra buildings have to be provided, the students can however stay at home and study.
- Distances learning is a flexible type of education, the student studies in their own time, pace and whenever they choose. Students are not removed from the social and economic status in the country.
- Distance learning can help assuage shortages shrivel of trained personnel or facilities.
- Distance learning can operate over large areas and long distance. This would actually help in a country like Nigeria. It would cater for widely scattered and dispersed population.

Jegede, (2001) opined that the ever-continuing growth in Nigeria's population, the attendant escalating demand for education at all levels, the difficulty of resourcing education through the traditional means of face-to-face classroom self mode, and the compelling need provide education for all, irrespective of environmental social or cultural circumstances, have meant that the country must of necessity find the appropriate and cost-effective means to respond adequately to the huge investment to the demand for education.

PROBLEM OF DISTANCE LEARNING CENTRE IN NIGERIA.

Distance learning programme in Nigeria has been in operation for a long time. However, its centers have problems which constitute barrier to its thriving. Some of these problems are discussed below;

Inadequate facilities: Many of the institutions that run distance learning programmes are designed as single mode institutions to offer courses mainly through face- to-face contact. The institutions were struggling to have sufficient facilities for their regular programmes. This, make it difficult for them to procure necessary equipment for other programmes, the available facilities for teaching and learning processes would be over utilized.

Lack of qualified Personnel: In these centers, there are no educational technology instructors or insufficient number of such. Many of the available lecturers does not have a proper understanding of distance learning methodology. Their understanding is more on the conventional ways of teaching and learning. Also educational administrators with special skills in distance learning are not available.

Inadequate power supply: The applying of electronic gadgets in the transmission of knowledge is indispensable in distance learning. In areas where there is erratic power supply, it is difficult if not impossible to make use of knowledge transmission equipment. Many of the centers did not have a regular supply of electricity. This make them resorted to face-to-face teaching and the use of course materials.

Improper curriculum: Many of the programmes mounted at the learning centers were not focused on national needs. The ultimate goal of the management of centers is to make money. They admitted any student for any course, and they gave more attention for arts based courses than the science and technology.

Attitude of instructors and lecturers: Bad behavior such as forceful sales of handouts, sexual harassment, poor class attendance and poor handling of students' assignments are common among instructors and lecturers at the study centers (Jayeola-Omoyeni 2002). This attitude is a counter-productive as students might be interest in the programme but the certificate.

Improper administration: Poor monitoring of the programme, poor motivation of instructor/lectures and poor supply of course materials on the part of the administrators could lead to failure of the programme. in the study centers, teachers and programme coordinators have not been very much sincere in the evaluation of student' performances.

THE NATIONAL OPEN UNIVERSITY OF NIGERIA (NOUN) DISTANCE LEARNING INSTITUTION WITH E-EDUCATION FACILITIES

The idea of an open university in Nigeria has been with the Nigerian Universities Commission since 1976, although it was only two years later, at the height of the new political development in Nigeria, that the idea gained prominence, almost to the point of being an electoral promise. However, it was not until 1st May 1980 that a planning Committee on the Open University was set up by the then newly elected civilian administration. The chairman of the presidential Committee on the Open University in Nigeria, Professor G.J.AfolabiOjo, who also became the first Vice- Chancellor of the institution, (Adamu, 1994).

The nature of the proposed Open University in the context of Nigerian higher education, the administrative and

academic structure of the University, the technical support services, staff establishments, relationships with other universities and related bodies within and outside the country, and also relationships with the mass media, (Ojo, 1982). "The objectives of the Open University are rationally flexible and responsive programmes which will be run at degree and post-graduate levels as well as for diploma, certificate. Enrichment and refresher courses to meet the needs of university students who will include working adults willing to combine work with learning, housewives, handicapped persons, and also young men and women who must have minimum qualifications for admissions as determined by the senate of the University. The teaching methods of the University are also clearly stated by Ojo, "the University have used the following teaching methods, at various levels, depending on the available technology and energy: (a) correspondence material (b) radio and television (c) sound and video tapes suitable for use in transistorized equipment (d) face-to-face teaching at local study centers and (e) written assignment."

In view of the extensive array of teaching techniques to be used, the Open University plans have been made to ensure that its dependence on some technical support services is reasonable, feasible and reliable. Such essential support services include printing, radio, television, post and telegraphs, web-based modules and computer facilities. It runs programmes in education, arts and humanities, business, human resource management and science and technology.

THE POTENTIAL VALUES OF VIRTUAL LIBRARY IN E-EDUCATION DEVELOPMENT.

The general role of the library includes promotion of education at all levels, then the virtual libraries are essential partners in this asset because they complement and facilitate access to fast educational and other information needs of the people. Libraries and library users would benefit from accessing several databases, discussing groups and other resources online. The virtual library with the potentials and capacity for massive data exchange, the internet has become an enhancement tool for distance and electronic learning. This is through the creation of virtual schools, classrooms, and laboratories. The virtual library is seen as a new opportunity created for the nation's Universities, and other enterprises develop and assist educational development existing both in the rural and urban communities of the country.

DISTANCE LEARNING IN RELATION TO E-EDUCATION

Distance learning also referred to as distance education has existed for a long time. This form of education obtains knowledge outside the traditional avenue of attendance at learning institutions. Moore (1999) stated this concept as "all arrangement for providing instruction through print or electronic communication media to person engaged in planned learning in place of time different from that of the instruction(s)" From the beginning distance learning has grown to be the most popular and, widely accepted means of providing education to the public either to complement the traditional formal classroom teaching system or exist as an independent educational process with host of distinct and peculiar methodologies.

According to Holmberg, the term 'distance education' covers "the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students at lecture rooms or on the same premises" (Holmberg 1989, p. 3). But contiguous education and pure distance education are extremes that rarely exist. Many distance education providers use face-to-face tutorials, summer schools and laboratory sessions, whereas many conventional universities utilize independent study and guided learning by tutors and a variety of media. The advent of the new interactive communication technologies enables synchronous communication between students and teachers and in-between students from a distance.

Daniel's (1990) interpretation of the term 'distance education' embraces all forms of instruction in which classroom sessions are not the primary means of education. Distance education is mostly homework, with occasional work in class; whereas conventional education is mostly classwork with occasional work at home. In conventional education the teachers teach; in distance education the institution teaches.

Although ICT facilitates the provision of distance education, and are also defined by many as 'distance learning technologies' (Arnold 1999; Garrison 1999; Garrison and Anderson 2000; Peters 2001), 'distance' is not a defining characteristic of e-learning. The applications of electronic media in distance teaching settings constitute only partial and limited functions, out of their overall capabilities. By their very nature, the new technologies are much more complex than the old distance teaching media, and they open up possibilities to design new study environments that were not feasible beforehand for both on-campus and off-campus students. The new ICT offer a rich plethora of uses in learning/teaching processes far beyond the ability to transfer content of textbooks and lectures to students at a distance. In fact, none of the ICT uses denotes the physical separation of the learner from the teacher at any stage of the study process. Many of the ICT qualities can be used most efficiently to enrich and support lectures, seminar meetings and face-to-face tutorials.

Distance learning is said to have some models, they are classified into three categories, distributed classroom, independent learning, and open-learning classroom

- Distributed classroom is said to be interaction telecommunications technology extend a classroom-based course

from one location to a group of students at different locations, the institution controls the pace and place of instruction.

- Independent learning as well is a type of model that free student from having to beat a location at specific time. The student are provided with a variety of instructional materials including course guide and outlines. Instructors met with their student via technological equipment like internet, computer and electronic gadget.
- Open Learning Classroom; this involves the use of print course guide and other media to allow the individual student to study at his or her own pace, combined with occasional use of interactive telecommunication technology from group meeting among all enrolled student.

INFORMATION AND COMMUNICATION TECHNOLOGY IN DISTANCE LEARNING

The use of Information and Communication Technology in educational process especially distance learning cannot be over looked. It is the best and the easiest way of communication between the instructors and their individual students across distances. In distance education the use of technology is essential. It is not a supplement to the traditional forms of distance education: correspondence and telecommunications-based education. The history of distance education reaches back to the 18th century when it took the form of correspondence education first. It was supplemented later by telecommunications-based distance education, which relies on a synchronous form of delivery and interaction between tutors and students. But only after the early success of the British Open University a wave of foundations of distance teaching universities in Europe and the United States during the 1960s and 1970s provided real alternatives to traditional classroom-based higher education. New technologies are seen as a modern and an improvement on the early teaching and learning method. Recently education has witnessed rapid development like other profession in this day of Information and Communication Technology (ICT). The incorporation of the computer and telecommunication technologies are dynamic force in distance education, providing a new and interactive means of overcoming time and distance to reach learners. Some of the instructional medias/ technologies used in Distance learning include; instructional television, computer, and interactive videoconferencing.

STRATEGIES FOR THE PROGRESS OF E-EDUCATION IN NIGERIA

It is generally accepted that computers and telecommunication technologies is a prominent factor in E-education process, organizational structure, quality services, work and etc. Therefore educational policy makers will need to work with other sectors to develop a multi-sectoral approach to development that will effectively improve the potential of ICT and promote more effectively processes which includes promotion of transparency and accountability. E-education has great potentials to achieve education for all by the year 2015 and therefore should be maximally harnessed by every possible avenue.

Mac-Ikemejima (2005) pointed out certain recommendations for the development of E-education in Nigeria. They are as follows;

- ❖ IT education should be included in the educational curriculum and the provision of necessary infrastructural support, massive training and employment of skilled manpower into both secondary and tertiary institutions. Professional software developers should be trained and supported with the necessary equipment to develop countrywide usable E-education software. Government education coordinators and agencies should work together in developing integrated broad-based strategies for E-education with a definitive timeline for its completion. Government should increase funding for the entire educational sector with emphasis on ICT and also encourage NGOs to participate in the funding of E-education projects.
- ❖ Government should work with other sectors to ensure affordable and sustainable access to ICT infrastructure. Implementation of policies that will encourage investment in ICT reduction tariff on import of ICT infrastructure, in order to promote affordability and wide range usage at all levels of the educational system. The importance of youth participation in ICT decision-making processes cannot be over emphasized, therefore youth participation in ICT policy-making processes at the national, state and local government levels should be encouraged and supported by all stakeholders.

SUGGESTION AND CONCLUSION

Distance learning is capable of enhancing human productivity for the development of nation economy, for Nigeria to realize and enjoy the benefits of electronic education, education advancement and stand in the committee of nations with an improved educational standard that is needed. The federal, state and the local government of Nigeria must develop positive attitude toward the introduction of computer based educational system in Nigeria from the elementary stage and intensify science and technology education at the Universities, Polytechnics and Colleges of Education to cope with the rapid global advancement in the field. There should be an empowerment of Nigerians in respect of their purchasing power and computer systems should be made available at a low cost prize or subsidized by the government

and involve communities in the educational process especially the technological education policy formulation for both implementation and monitoring.

Provision of functional infrastructure facilities backed up with good maintenance culture for a better electronic educational process should be in place, also exchange experiences and information in the field of electronic education among the developed nations of the world. There should be training and retraining of personnel to cope with technological improvements in educational system all over the world, build up institutional capacities in effective and efficient programming, financial management and budget execution and enforce cost-sharing and cost recovery policies. Nigerian government should give full support to the activities of the Association of Education in Africa and its Working groups, and involve out development partners and Non-Governmental Organisation in our planning implementation. Also support the activities of Non-Governmental Organisation in the field of education such as the Forum for African Women Educationist (FAWE) and exchange ideas on electronic education initiative.

In conclusion, it is believed that if all these suggestion are put in place. E-educational process will be fully realized in distance educational system and improve Nigeria's educational system and standard. This will enable Nigeria to find herself among committee of nations with developed on-line educational system for a better national productivity for economic development.

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