

E-LEARNING RESOURCES: AVAILABILITY AND LEVEL OF PREPAREDNESS FOR UTILIZATION OF EDUCATORS IN TERTIARY TEACHER EDUCATIONAL INSTITUTIONS IN NIGERIA

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Abstract

This work employed survey methods, and covered six Tertiary Teacher Educational Institutions (three Universities and three Colleges of Educations) in the North Central geo-political zone of Nigeria, selected based on earlier feasibility study that established availability of e-resources. Two instruments were used; a check list to investigate and establish availability of e-resources in the Institutions and a 20-items questionnaire validated by experts, and further pilot tested. The test-retest method was used and a reliability coefficient of 0.85 derived from Kuder Richardson 21. The questionnaire was administered and collected by the research assistances on the second visit to the various Institutions. The e-resources covered were the television, radio, computer (CBE, CAI, CEI), Internet and mobile e-resources. It was discovered that, even though some Institutions possess e-resources, their educators are not adequately prepared in terms of skills and proficiency for their utilization. Based on these findings, recommendations were made.

Introduction

Education is generally acknowledged as being crucial for the development process of any nation. That is the reason why Nigerian educational policy makers and social planners have placed a huge premium on the development of the education sector (Olakulehin, 2007). This is a confirmation of the National Policy on Education (NPE 1977, revised 1998, 2004), that no nation can rise above the quality of its teachers. Based on this self evident, the National Policy formulators recommended as a priority the education of those responsible for facilitating the education of Nigerians in the development plan process. As a result, teacher education will continue to be given attention, and tertiary teacher educational institutions are charged with this responsibility. The Tertiary Teacher Education Institutions refer to the Colleges of Educations and the Faculties/Departments of Educations of Universities, where professional teachers are trained.

For reasons above, teachers need to have an up-to-date knowledge, skills, pedagogical methods, teaching aids and interest to explore and implore all that will help him to achieve his objectives such as e-learning (Nwafor 2007). The e-learning is the education process that employs the gadgets built up with electronics semi-conductor components like the diodes, transistors, resistors ad Integrated Circuits. E-learning resources being the electronics resources like the radio/television, computer, Internet, and assorted mobile e-resources. The radio and television used or for everyday broadcasting of news have over the years been used in the education enterprise productively. According to Nwafor (2003: 143) “*television educational broadcasting emerged in the fifties*”. In order to solve the problem of scarcity of teachers. America pioneered the replication of normal classroom teaching with pupils sitting in on the television screen. They started at local level of television broadcasting with a closed circuit system. Columbia was first among developing countries to have broadcast for community development and fundamental education. With the interest and enthusiasm of a catholic priest, the programme grew into Columbia’s largest radio network (Nwafor, 2007).

In Nigeria, the wired system broadcasting experimental radio station was built in Lagos in the year 1933, where wires were connected to loudspeakers installed in the homes of subscribers, and not with a complete radio set. The coming into statutory existence (NBC) empowered them to establish radio and television stations (Nwafor, 2007). Now in Nigeria, there are several of them, which are propagating various types of educational programmes.

When ever scientist produce a communicating device, education makes almost the most use of it. When they produced the smooth chalk board, it became the major means of usual communication in the classroom. When they produced various forms of projectors, they become the rich assets that the educational technology personnel had. The radio and closed circuit television are still very useful in education system. When considering computer in education, the educational technologists are presently discovering the numerous productive purposes that computer can serve in education. It is obvious that computer can not replace the teacher in the learning process but supplement his effort to be more effective in discharging his duties. Such terms like computer Based Learning (CBL) Computer Managed Instruction (CMI), Computer Based Education/Instruction (CBE & CBI) are commonly found in use.

These refer virtually to all kinds of uses that computer has been put to in educational setting; including drill and practice, tutorials, simulations, instructional management, supplementary exercises, programming, database development, using word processing and many other applications, (Akudolu, 2004). These terms could be for independent use, small and large group presentations, or as materials supplementary to traditional chalk and talk method.

Computer Assisted Learning (CAL)

Refers to uses like the simulations, tutorial, drill and practice which can assist educators as supplements to their traditional, teacher leading instruction or by the computer themselves (Akudolu, 2004, Ikyumen, 2009).

Computer Managed Instruction (CMI)

The term refers to all the benefits that the school and staffs get from the uses of computer. It may be *“to organize students’ data, make instructional decisions”* (Nwafor 2007: 167), evaluate students test performance and guide them to appropriate instructional resources, or to keep their progress records.

Computer Enriched Instruction (CEI)

This refers to learning activities that the computer generates data at the students request to illustrates data at the students request relationships in models of physical or social realities. It is referred to as ‘the use of digital technology to assist in the process of instruction (Szabo, 2000 in Nwafor, 2007. The generated data could be developed by the students, or the computer itself may “provide general enrichment in relatively unstructured exercises designed to stimulate and motivate students/” (Nwafor 2007: 167).

Internet-Based Learning

When two or more network (formed by two or more things) are directly connected to each other, they form what is called inter-work. Millions of computer all over the world are globally interconnected for the purpose of communication and is called, the Internet, (Ikyumen, 2009). The internet contain rich materials stored on them in various site in the form of documentation and supplementary materials, videos, interactive resources, various computer programs and digital resources. Programs and facilities found on the Internet include Electronics Mail (e-mail), News Group, Chat Rooms and Instant messaging, Moodle, Gopher, Telnet, Remote Login, Skype and many more. You can use them both for managing, communication and facilitating learning in education process.

Mobile E-Resources

The mobile e-resources (otherwise called Ubiquitous (U) resources) are the digital devices that you can move with from one place to another. They are very useful in educational system and play vital roles in programme production. Some of the mobile e-resources are the MP3, MP4, MP5, GSM handsets, digital camera, camcorder, digital projector, electronics board, west band amplifier, desktop, laptop, notebook and palm top computers, personal digital assistance, Bluetooth, Infrared, and Blackberry.

E-learning resource are used by learners and teachers alike. Teachers use e-learning resource to produce, utilize and evaluate learning programmes to bring about effective education system with

better methods of imparting knowledge and for research (Ikyumen, 2007a). Learners use e-learning resource to learn the resources, through the resources and with the resources, thus improve on their learning skills, perfect their abilities, update their knowledge, learn with time economy and have better retention, (Ikyument, 2007b).

Seketee (2006) observed that approaches in practical utilization of these facilities have achieved limited success in terms of sustained use in the classroom, making the factual authenticity a dream. On the other hands, Perry, Associates and Terrance group (2001) viewed that teachers recognize the value of technology within education and are comfortable with computers and Internet when conducting research; taking Internet primarily as a reference tool. According to Nwafor (2007) the needs and problems of the society change from time to time, so education must change to meet the new challenges of the society.

These will mean that the Education Stake holders will have to employ a higher level of preparedness and readiness in terms of skills acquisition and know-how of application of these resources. It demands desperate action for survival such that was employed in 1976, when the UPE was launched to solve the problem of acute shortage of Primary school teachers, (as we are lacking them in ICT today). The Associateship Certificate in Education (ACE) was introduced to produce the needed manpower. Producing ICT Manpower shouldn't have been a problem to Nigeria, because they have tackled such before when she was even younger.

Statement of Problem

The availability of emerging New Educational Technology facilities can be of most importance as the facilitator has to cultivate mediations between the educational Technology Media (ETM) and the learners such that opportunities to expand cognition are seized upon. Their use in learning is not a sole pursuit but as shared with mediating resources found within the learning environment. When used for group presentation, learning is distributed across minds that are connected by way of the activities within which they are collectively participating, (Seketee 2006).

Despite the acclaimed benefits and advantages of the numerous e-resources, their availability and extent of educator preparedness for utilization is the only way to bridging the gap between theory and practice in the education process. The new move of the electronics resources and learning actually call for equipment of the Tertiary Teacher Educational Institutions with new facilities and new skills for the educators to be more effective in performing their daily duties. Having researched and discussed for a long time the benefits that could be derived from the design, development, production and utilization of instruction on educational technology media in various fields of education by so many researchers, these study seeks to investigate the availability of e-resources and the extent of Educator Preparedness for Utilization in the Tertiary Teacher Education Institutions in Nigeria.

Purpose of the Study

The study investigated the availability and extent of preparedness for utilization of the e-resources by educators in Nigerian Tertiary Teacher Educational Institutions. The study specifically investigated:

1. availability of e-resources in the schools.
2. training opportunities provided for Educators in Tertiary Teacher Educational Institutions.
3. knowledge extent of educators and preparedness for the use of available e-resource materials.

Research Questions

To achieve the aim of this research, the following research questions were raised to be answered:

1. What is the level of availability of e-resources in the schools?
2. How adequate are the educators trained for e-resources utilization in tertiary teacher educational institutions?

3. What is the knowledge extent of educators and their preparedness for the use of available e-resource.

Methodology

Two instruments were used for the research. A researcher check list was prepared and subjected to face and contents validity by experts in the department of educational technology. Through the research assistances attached to the researcher by Deans or Heads of Departments, the check list was administered to media centre staff of ten Tertiary teacher Educational Institutions in the North Central Geo-Political Area of Nigeria. Based on the result obtained after analysis, the six institutions identified to be having enough e-resources were selected and a 20-item questionnaire prepared and administered for data collection. The questionnaire was validated by experts, and further pilot tested. The test-retest method was used and a reliability coefficient of 0.85 derived from Kuder Richardson 21 recorded, showing the reliability of the instrument. The questionnaire was administered and collected by the research assistances on the researchers second visit to the various Institutions.

Results and Discussions

The results are presented according to the research questions raised.

Research Question 1

On the check list, if a component of e-resources is available ‘1’ is assigned and ‘0’ otherwise. 15 components of e-resources were considered; 50% and above of the components available in an institution will be considered as e-resources been available and below 50% as not being available.

Institution	No. of Component Available	Percentage (%)
FUT Minna	14	93.333
BSU Makurdi	11	73.333
COE Ilorin	11	73.333
Uni, Ilorin	15	100.000
FCOE Pankshin	14	93.333
COE K/Ala	11	73.333

Fig. 1 Availability of e-resources in the Institutions

The above table is a summary of six institutions that have the e-resources availability far above 50%. Meaning that the e-resources are available in the institutions, despite the fact that some have more components than others.

Research Question 2

For research question one and two, data was collected through questionnaire, analysed and presented in tables below.

	Observed N	Percentage	Residual
Do not receive training	112	95.72	53.5
Receiving training	5	4.27	-53.5
Total	117		

Fig. 2 Analysis of Training on e-resources utilization

From the table above, 112 self reporting respondents representing 95.72% did not receive training, while 5 respondents representing 4.27% have agreed to have received training.

Research Question 3

Data collected was analysed and presented as shown in the table below.

	Observed	Percentage	Residual
No proficiency in e-resources utilisation	106	90.60	47.5
Proficiency in e-resources utilisation.	11	9.40	-47.5
Total	117		

Fig. 3 Knowledge level and educator preparedness for e-use

From the above table, 106 self evaluated respondents representing 90.60% are not proficient in e-resources utilization, while 11 respondents representing 9.40% are proficient in e-resources utilisation.

This is an indication that educators do not really possess the required knowledge and are not prepared for e-resources utilization in the Tertiary Teacher Educational Institutions in the North Central Geo-Political Area of Nigeria. There is clear and wide spread agreement among the public, educators and researchers that the world is going digital, and e-resources utilization can bring about effective learning with time economy.

This will mean that the educators who facilitate the students' learning should possess a high level of knowledge and proficient in the use of these resources themselves.

Unfortunately, while the government and institutions are spending a great deal of money on technology infrastructure, there seems to be no much preparation in terms of manpower development for their utilization. The educators should master the isolated technological skills and move to an integrated approach, developing a collegial partnership among the collaborative workforce.

Suggestions and Recommendations

Hence, the instructional challenges to teachers in the new millennium is to go beyond the traditional chalk and talk method and introduce teaching that articulates goals, motivates and promotes strategies for solving problems and provide students with guided practice (Harbor-Peters, 2002), provided by the numerous e-learning resources, government and other authorities should provide a clear direction on e-resources utilization, and set time limit when educators who are not "literate will be allowed to practice". This will lead to the development of "Cognitive styles", strategies or regular mental behaviours, habitually applied by individual staff to problem solving, that will built up underlying potentials.

The government also has to support the training by providing relevant Implementation framework if the potential of the Educational Technology Media is to be realized to achieve the education item on the seven-point agenda. Faculties and Departments also should encourage workshops, symposium and other interactive forum that will encourage meta-cognition among workers.

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