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Assessment of The Use of ICT By Distance Learning Students in The University of Ibadan, Nigeria

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ABSTRACT

This paper reviews the use of Information and Communication Technology (ICT) by students of Distance Learning Centre, University of Ibadan, Nigeria. There is no doubt that ICT is playing a vital role in Open and Distance Learning (ODL) in terms of enhancing the provision of immediate assistant to the learners for their academic and administrative needs in large scale. It has been established that services cannot be performed in distance learning centres using traditional institutional system all alone. Therefore, ICT tools application has been incorporated to meeting the requirements of learners at various phases of learning cycle viz the admission phase and other services. The heterogeneous requirements in open distance learning has culminated into issues and challenges needed to be addressed in usage of the technologies and the service(s) being provided through ICT. Survey research design with the aid of questionnaire was employed to elicit response from the respondents. Simple random sampling technique was used to select the sample size of this work. The effectiveness, stimulating factors, issues and challenges confronting ICT usage, purpose as well as other challenges encountered by staff and students of University of Ibadan DLC were emphasised. Recommendations were made based on the findings.

Keywords: Open Distance Learning, DLC, ICT, Availability, Access control

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Introduction

The advent of distance learning system in Nigeria has generally been embraced such that learners remote to the institution can receive form of education like their full-time counterparts. There is also a difficulty of reaching learners who cannot visit the institution every day to get a service/support as available in a conventional system. This development has therefore brought about the use of Information and Communication Technology (ICT) as a prime resource to overcome such limitations. The adoption and application of ICT into open and distance learning clearly changed the way education is conducted.

Nwosu and Ogbomo (2012) noted that ICT brings about the possibility of not only working with distance learning and achieve a closer collaboration between different universities, but also paving the way for a new pedagogical approach where there is unparallel ability to spread knowledge and disseminate information. The pace of change brought about by new technologies has had a significant effect on the way people live, work and play worldwide. The use of ICT has also challenged the traditional process of educational system and academic information use and dissemination coupled with the ways information is managed. It promotes worldwide communication with instant access to a vast array of data, challenge assimilation and assessment skills, rapid communication plus increased access to ICT at home, work and in educational establishment.

According to Rao (2009) Information and communication technology can be described as a group of technologies by which various support services are provided at different phases of student learning life cycle in distance learning. The various phases include the admission phase (programme details, fee structure, admission procedure, and registration and re-registration), the learning phase (learning schedule, programme delivery(lectures through video conferencing,

webinars, audio and video programmes, multimedia presentations and case studies), the evaluation phase (examination schedule, internal and external assessment, examinations, improvement, valuation, revaluation and result declaration) and the certification phase (marks/grades updates, certificate printing & issuing and convocation schedule). Despite the importance of ICT in educational development, the present scenario still leave room for ascertaining its influence on distance learning education. It is on this note that this study seeks to examine the effectiveness in the use of ICT by the DLC Students, University of Ibadan in achieving these phases.

Objectives of the Study

The overall objective of this study is to assess the usage of ICT by the distance learning students in the University of Ibadan, Nigeria. Specifically the study seeks to:

- i. determine the effectiveness of the ICT infrastructure in meeting the needs of distance learners;
- ii. determine the factors militating against the use of ICT in distance learning centre;
- iii. identify the challenges faced by the centre in the course of using ICT infrastructures for distance learning.

Research Questions

The following research questions were formulated to guide the study.

1. What is the effectiveness of the ICT infrastructure in meeting the needs of distance learners?
2. What are the factors militating against the use of ICT among learners in distance learning centre?
3. What are the challenges faced by the centre in the course of using ICT infrastructures for distance learning?

Literature Review

According to the postulation of Blurton (1999) Information Communication Technology (ICT)

is a diverse set of technological tools and resources used to communicate, to create, disseminate, store and manage information. This means that ICT helps in the storage and management of information. Ayo (2001) also defined ICT as the use of computer systems and telecommunications equipments in information processing. ICT as described by Scott (2002) encompasses a range of applications, communications and technologies which aid information retrieval, research communication and administration. These include: Internet access, electronic mail, CD-ROMS, telephone, on line databases, library services and fax machines. It has become a global phenomenon of great importance and concern in all aspects of human endeavour, spanning across education, governance, business, labour, market, shares, productivity, trade, agriculture, commerce and others.

Yusuf (2005) indicated that cultures and societies are adjusted to meet the challenge of the knowledge age. The pervasiveness of ICT has brought about rapid change in technology, social, political and global economic transformation. It is widely acknowledged that ICTs can be used to improve the quality of teaching and learning in any tertiary institution. It is observed that the prevalence and rapid development of ICTs has transformed human society from the information technology age to the age of knowledge. Nwosu and Ogbomo (2012) posit as a matter of fact, ICTs are becoming natural part of man's daily life, thus the use in education by staff and students is becoming a necessity

In conventional system, learners are able to interact with one another face-to-face, which is a prerequisite to more meaningful social intercourse. Since, there is no such facility in the distance learning, web-based student learning and support system shall be developed and implemented using ICT to provide services at all different phases in student learning life cycle and also for knowledge and information sharing as done in a conventional system of

education. Distance education could also be said to have the potential to support such policy goals, as has been demonstrated in both developing and industrialised countries (Perraton, Robinson & Creed, 2007). Without it, some of the improvements so far achieved in teacher quality would not have been possible, especially in developing countries like Nigeria. The growth of Information and Communication Technologies has added new options for teachers' professional development as well as raised concerns about the inclusion of disadvantaged groups (Collis & Jung, 2003; Leach, Ahmed, Makalima, & Power, 2006).

ICTs include communication devices or applications, encompassing: radio, television, cellular phones, networks, software, and satellite systems, as well as the various services and applications associated with video conferencing and distance learning. Tinio (2002) noted that ICT are powerful enabling tools for educational change and reform. When used appropriately, different ICTs could help in expanding access to education, strengthen the relevance of education to the workplace, and raise educational quality by creating an active process connected to real life. Potashnik and Capper (2002) also indicated that the use of computers and the Internet is still in its infancy in developing countries, if these are used at all, due to limited infrastructure and the attendant high costs of access. Moreover, different technologies are typically used in combination rather than as the sole delivery mechanism. In addition, Sri Lanka Tinio (2002) observed that the Open University of the United Kingdom (UKOU), established in 1969 as the first educational institution in the world wholly dedicated to open and distance learning, still relies heavily on print-based materials supplemented by radio, television and, in recent years, online programming.

Furthermore, Tinio further noted that the Indira Gandhi National Open University in India combines the use of print, recorded audio and video, broadcast radio and television, and audio

conferencing technologies. Haddad and Draxier (2002) indicated that ICT contributed to effective learning through expanding access, promoting efficiency, improving the quality of learning and improving management systems. Obeng (2004) observed that ICT is now regarded as a utility such as water and electricity and hence has become a major role in education, learning and research in general, agriculture, health, commerce and even in poverty alleviation by generating or creating new jobs and investment opportunities. ICT is an indispensable part of the contemporary world. The field of education has certainly been affected by the penetrating influence of ICT worldwide and in particular developed countries. ICT has been viewed to have made an impact on the quality and quantity of teaching, learning and research in the tradition and/or distance education institutions using it (Kwacha, 2007). The study of Ololube, Ubogu and Ossai (2007) stated that the introduction of ICT usage, integration and diffusion has initiated a new age in educational methodologies, thus it has radically changed traditional method of information delivery and usage patterns in the domain as well as offering contemporary learning experience for both instructors and students.

Yusuf (2006) identified and discussed factors militating against the use of ICT among learners in distance learning centre under the following headings:

Problem of electricity: Since successful distance education cannot be assured without the use of communication and technological tools (e-mail, fax, Internet, television, radio, etc.), then the problem of electricity comes into focus. Several rural areas in Nigeria are yet to have electricity, while the urban arrears experience epileptic power supply. This will create problems for effective integration of most technological media in the delivery of distance education programme. Poverty among Nigerians makes alternative sources of electricity non-visible to most Nigerians.

Poor telecommunication facilities and lacks of access: Just like electricity most Nigerians do not have access to telephone and other telecommunication facilities. Even, telephone lines in the urban centres are not adequate to serve the teeming population. Services for those who have access are in most cases epileptic. These may make the integration of telecommunication in the delivery of distance education difficult. In addition, poor state of telephone has led to increase in dial-up cost for most Nigerians. Even with the recent introduction of GSM in August, 2001, access is still limited and services are yet to be perfect and service charge may make GSM unattractive for distant learners.

Poor Postal System: The postal system in the country is not yet up to international standard, in terms, of safety of goods, quick delivery of correspondences, accessibility to remote areas, and so on. Although of recent improvements have been made in the post services by NIPOST, the level of services, cannot guarantee efficient two-way communication between distant learners and distance education institutions.

Poor economic situations and its effects on middle level manpower:- The poor state of the nation's economy has pauperized most Nigerians. Even an average middle income earner cannot afford basic technological and communication gadgets. Thus, computer related telecommunication facilities might not be useful for most Nigerians, as computer is still a luxury in institutions, offices and homes. This may make the integration of necessary on-line resources (e-mail, newsgroups, world-wide-web, etc.) into distance education in Nigeria difficult.

Poor ICT Penetration: Like most African countries basic ICT infrastructures are inadequate. A study by Nigerian Information Technology Professionals in America in 2002 indicated that given current ICT penetration it may take Nigeria 50 years to catch up with

America on the aspect of Pc count per households (Iromanto, 2004).

Yusuf (2006) further posited that lack of consistency in Distance Learning programmes, policy implementation, lack of continuation of open and distance education programme by successive government since 1980s, and adequate funding were the major challenging issues involved in the use of ICT infrastructure at Distance Learning Centres.

Methodology

The descriptive survey design of *expost-facto* was employed. The population for this study consists of selected staff and students of the Distance Learning Centre, University of Ibadan, Nigeria. The instrument used for data collection was a self developed questionnaire tagged "ICT Usage by Distance Learning Centre (ICTUDLC)". Simple random sampling technique was adopted to select the respondents, and two hundred and fifty (250)

students were sampled from the population of the DLC students cutting across all levels of study and departments. However, only two hundred (200) copies of the questionnaire were retrieved and found useable which eventually amounted to 80% response rate. The data collected were analyzed using descriptive statistics such as frequency count and percentages.

Results

The results of the finding are as presented below.

Research Question 1

What is the effectiveness of the ICT infrastructure in meeting the needs of distance learners?

Respondents were asked to indicate the effectiveness of ICT infrastructure in their registration, result checking, assignment submission, download course materials and computer based testing

Table 1: effectiveness of ICT usage

Purpose	Response		Response	
	Yes	(%)	No	(%)
Registration	200	100	0	0.0
Result checking	148	74.0	52	26.0
For lecture notes	26	13.0	174	87.0
Assignment	187	93.5	13	6.5
E mail	78	39.0	122	61.0
Research	30	15.0	170	85.0
Computer based exam	142	71.0	58	29.0
Down loading DLC course materials	171	85.5	29	14.5
A platform for social interaction (Google Plus)	54	27.0	146	73

The results showed that 100% of the respondents indicated that they make use of ICT affirmatively, 93.5 %) claimed that they make use of ICT for assignment purposes. Furthermore, 171 constituting 85% make use of

ICT to download course materials, and overwhelming 74% made use of ICT for checking of examination results. However, 30% of the respondents opined that they rarely make use of ICT for research or lectures. The

implication of the findings is that DLC are only compelling their students to make use of the facilities for assignment submission, registration, course materials and result purposes.

Research Question 2

What are the factors militating against the use of ICT among learners in distance learning centre?

Respondents were asked to indicate factors affecting the use of ICT in DLC.

Table 2: Factors Affecting ICT usage in DLC

Factors	Response		Response	
	Yes	(%)	No	(%)
Inadequate manpower	103	51.5	97	48.5
Poor telecommunication facilities and lacks of access	148	74.0	52	26.0
Problem of electricity	174	87.0	26	13.0
Poor economic situations and its effects on middle level manpower	45	22.5	155	77.5
Poor Postal System	78	39.0	122	61.0
Poor ICT Penetration	170	85.0	30	15.0
Little or no ICT skills among students	142	71.0	58	29.0

The result showed that the major factor militating against the usage of ICT by DLC students is connected to the problem of electricity with 174(87.0%) respondents adduced this to their poor ICT usage. Another factor as revealed by the study is poor ICT penetration with 170(85.0%) and poor telecommunication facilities and lacks of access with 148 (74.0%) respectively.

Research Question 3

What are the challenges faced by the centre in the course of using ICT infrastructures for distance learning?

Respondents were asked to indicate the challenges involved in ICT infrastructural usage for distance learning centres, judging by their own observations and the response is summarised in Table 3.

Table 3: challenging issues involved in the use of ICT infrastructure

Challenging issues	Response		Response	
	Yes	(%)	No	(%)
inadequate funding	145	72.5	55	27.5
lack of consistency	89	45.5	111	55.5
lack of continuation by successive government	78	39.0	122	61.0
policy implementation	132	66.0	68	34.0

As revealed by the study, the most challenging issues as indicated by the respondents are inadequate funding with 72.5% and lack of policy implementation with 66.0%.

Discussion of Findings

There is no doubt that the result of this study has revealed that there are adequate ICT facilities in Distance Learning Centre, University of Ibadan which are made available for use by staff and students. This is an indication that distance learning centres in Nigeria has come of age in terms of ICT and distance education. This lends credence to the position of Rao (2009) who noted that the institution that provides education in open distance learning mode requires a structured network at all its operational nodes and interconnected each other through a dedicated network so that all student services can be accessed easily by all operational nodes, students and other public. Furthermore, the purpose for which DLC students use ICT facilities hinge on the fact that the programme is structured in a way that students are expected to relate with their facilitator remotely. For instance majority of the respondents sampled made use of ICT facilities to download their course materials as well as carry out and submit their assignments which form their continuous assessment and as such they are left with no other choice but to use the facilities. Only a few of the students use ICT facilities for research and social activities such as study group and academic forum.

In addition, the study revealed the most prominent infrastructure in usage of ICT is mostly for registration and assignment. This supports the study of Tinio (2002) which notes that ICTs are powerful enabling tools for educational change and reform. When used appropriately, it helps expand access to education, strengthen the relevance of education to the workplace, and raise educational quality. The findings also corroborates Haddad and Draxier (2002) who indicated that ICT contributed to effective learning through expanding access, promoting

efficiency, improving the quality of learning and improving management systems. Problem of electricity, poor ICT penetration and poor telecommunication facilities and lacks of access were the major factor militating against the usage of ICT by DLC students. These as revealed by the study were in line with the position of Yusuf (2006), who identified and discussed problems associated with instructional delivery at a distance in Nigeria to include: problem of electricity; poor ICT penetration, poor telecommunication facilities and lacks of access. Finally, as revealed by the study, the most challenging issues as indicated by the respondents are inadequate funding and lack of policy implementation. This also supports the study of Yusuf (2006) which stated that funding and lack of policy implementation among others were the challenging issues facing the use of ICT infrastructure in distance learning centres.

Conclusion

The use of ICT in DLC has the potential of facilitating equitable learning for cross section of the student population. It can improve the quality and variety of the resources and support available to staff and students alike, opening up new avenues for learning and educational advancement for all. If social justice is to be achieved however, in terms of equity of educational opportunity and services, the provision needs to be planned in ways that make it available, accessible, acceptable, and adaptable to all DLC students, empowering them to make choices in what and how they learn. It also needs enabling policies in support of these aims since distance education and ICT have the capacity for large-scale delivery over huge distances. While the technology opened the way to new possibilities, the factors that contributed to its successful use were strong commitment from the administrators of DLC at various levels, enabling policies, an emphasis on human resource development rather than equipment, good quality learning resources and training of the DLC students, effective

monitoring practices, and sufficient funds to procure necessary ICT facilities and equipments needed.

Recommendations

Based on the findings of the study, the following recommendations were made.

- Distance learning education provides needed access for Nigerian who are presently disadvantaged through the conventional educational system. Hence the government and the stakeholders should prioritize its policies on distance learning education and its infrastructure.
- Problem of electricity should be addressed by the management of DLC through provision of alternative source such as the use of inverter, solar panel among others?
- Government should be involved in the provision of telecommunication facilities across the length and breadth of the nation to access to ICT infrastructure to facilitate teaching and learning at Distance Learning Centres.
- For distance learning centres to achieve its set goals and mandates, proper steps must be taken not to involve community leaders, business groups, conventional educational institutions, donor agencies and other stakeholders in the planning and implementation of the distance education programme in Nigeria.
- The Nigerian Communication Commission through Universal Service Provision Fund (USPF) should expand its scope to be a major partner with Distance Learning Centres in the provision of subventions, ICT infrastructures and telecommunication facilities network across Nigeria to increase access in Distance Learning Centres.

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