

LECTURERS' AWARENESS, CHALLENGES AND UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) RESOURCES IN CONTENT DELIVERY IN FEDERAL COLLEGES OF EDUCATION IN NIGERIA

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Abstract

This paper investigated the Lecturers' Awareness, Challenges and Utilization of Information and Communication Technology (ICT) in content delivery in Nigeria. Three research questions were used to guide the study. A Survey research design was adopted to conduct the study. The target population was five thousand and seventy one (5,071) lecturers of Federal Colleges of Education in Nigeria. Sample size of eight hundred and forty three (843) lecturers of F. C. E. T. Asaba, Adeyemi COE Ondo, F. C. E. Katsina, F. C. E. Okene, Avan Ikoku COE Owerri and F. C. E. Yola were selected using cluster sampling technique. A modified questionnaire tagged Teachers ICT usage survey from the ICT Survey Indicator for teachers and staff developed by both UNESCO (2004) and the New Zealand Ministry of Education (MINEDU) (1999) was used for data collection. Face and content validity used to validate the instrument and reliability coefficient of 0.96 was found using the Cronach's Alpha Reliability Coefficient obtained. Frequency count was used to answer research questions. The findings of this study revealed that lecturers were not well exposed and proficient in using ICT resources in content delivery. This study also confirmed that lecturers are face with challenges in using ICT resources in content delivery. This study recommends, among others, that lecturers should possess necessary ICT skills, training and retraining that will enable them to use ICT resources in content delivery.

Keywords: ICTs, Lecturers' awareness, challenges, content delivery

Introduction

Information and communication technology (ICT) has no doubt changed the face of teaching and learning globally, and most nations are taking the advantages inherent in ICT to impact on the education sector. The field of education has certainly been affected by the penetrating influence of ICT worldwide and in particular developed countries (Hilty, 2008). ICT has made a very profound and remarkable impact on the quality and quantity of teaching, learning and research in the educational institutions (Yusuf, 2005). ICT has the potentials to accelerate, enrich and deepen skill to motivate and engage students in learning to help relate school experiences to work practices; to help create economic viability for tomorrow's workers, contribute to radical changes in school; to strengthen teaching and provide opportunities for connection between the school and the world.

Aribisala (2006) noted that ICTs are increasingly playing an important role in organizations and in society's ability to produce, access, adopt and apply information. He also viewed ICTs as the tools for the post-industrial age and the foundations for a knowledge economy due to their ability to facilitate the transfer and acquisition of knowledge. Stressing the importance of the use of ICT in education, Olorunsola, (2007) is of the opinion that through ICT, educational needs have been met; it changes the needs of education as well as the potential processes. The

message can be communicated through the email, telex or telephones particularly the mobile ones. The pervasiveness of ICT has brought about rapid technological, social, political and economic transformation, which has eventuated in a network society organized around ICT (Yusuf, 2005).

Several efforts were made to inculcate ICTs development in Nigeria, Agbonlahor, Bamitale and Okike (2002) reported that the Nigerian National Universities Commission (NUC) in 1995 embarked on a project to link all Federal Universities electronic network named NuNet (Nigerian Universities Network) with the ultimate aim of establishing interconnectivity (including Internet) among the Universities. According to them, the project was halted due to some logistic problems. However, a preliminary evaluation of ICTs initiatives by government and non-governmental agencies has not been as successful as they ought to be. For example, Gambari and Adaeze (2007) observed that ICTs inadequacy in academic institutions was invigorated by budgetary constraints while Oketunji (1999) opined that most lecturers are not aware of the vast resources available on the Internet in developing countries.

Presently, the World statistics of Internet usage in Nigeria is 43.9 million. This is still very low for a country that has over 140 million people. In addition to the aforementioned, recent development indicates that improved access to Internet was basically spurred by the emergence of private companies that were interested in offering Internet services and were allowed to use Very Small Aperture Terminal (VSAT) for efficient services. However, Adeogun (2003) observed that rapid accessibility is sometimes faced with problems either in getting connected or retrieving information in developing countries. Not only that, the apathy of some lecturers in the use of Information and Communication Technologies (ICTs) has been a bottleneck in acquiring information on the Internet.

Other factors can be traced to socio-psychological phenomenon or personal belief in the efficacy of adopting the new technology. The ability to use the Internet by lecturers' is likely to be influenced by their beliefs. That is, lecturers' perception about their capacity to work effectively using the Internet will stand as a factor in determining their patterns of information usage. In order to build on existing knowledge, ICT today offers new opportunities for easy dissemination. However, this depends on the lecturers' awareness and utilization of ICT for content delivery.

Statement of the Problem

A wide range of educational application, ICT is being used to improve the efficiency, accessibility and quality of learning process in education. ICT offers new and innovative mode of learning for teachers and students in schools; it bring about classroom without walls when teachers realize the enormous potentials of this resources (Adekomi, 2006). But on the contrary, it was observed that many lecturers hardly comprehend the benefit of ICT in teacher education. Okebukola (1997) observed that ICT resources like computer, smartboard projector and many others are not used in content delivery in most tertiary institutions in Nigeria, thus the lecture method and course materials/ handout continue to dominate instructional delivery in tertiary institutions.

This is an indication that the teachers are still lagging behind in the trend of changes in the world of ICTs. This presupposes that there is the tendency for the students and teachers to be denied the opportunities which ICT offers in the teaching-learning activities. Beside, many

Nigerian teachers have been unable to find effective ways to use technology in their content delivery or any other aspect of their teaching. The use of ICT resources in content delivery is still a mirage, hence the need to investigate the lecturer's perception on the use of ICT resources for effective content delivery in Federal College of Education in Nigeria.

A major gap in most institutions in Nigeria in the onset of the 21st century is the gap in the availability and accessibility of knowledge. In the light of these, therefore, this study intends to investigate the Lecturers' Awareness, Challenges and Utilization of Information and Communication Technology (ICT) in content delivery in Nigeria.

Objectives of the Study

The objectives of the study are to:

- (i) Examine the level of awareness of Federal Colleges of Education lecturers on ICT resources?
- (ii) Find out the types of the ICT resources that available and used for content delivery for Federal Colleges of Education in Nigeria?
- (iii) Find out the challenges lecturers faces in the use of ICT resources for content delivery in Federal Colleges of Education in Nigeria.

Research Questions

The study would seek answers to the following research questions:

- (i) What is the level of awareness of Federal Colleges of Education lecturers on ICT resources?
- (ii) What types of the ICT resources available and used for content delivery in Federal Colleges of Education in Nigeria?
- (iii) What are the challenges lecturers faces in the use of ICT resources for content delivery in Federal Colleges of Education in Nigeria?

Research Methods

This study adopted survey research design. Survey is used in studies that have individuals as units of analysis (Babbie, 2001). This is also what Nworgu (1993) described as allowing a group of people or items to be studied by collecting and analyzing data from only a few people or items to be considered as representative of the entire group.

The population of the study comprises of all the lecturers in Federal Colleges of Education in Nigeria. They are five thousand and seventy one (5,071) in number. A sample size of eight hundred and forty three (843) lecturers was used for the study; using cluster, simple random and proportional sampling techniques. A modified questionnaire tagged Teachers ICT usage survey from the ICT Survey Indicator for teachers and staff developed by both UNESCO (2004) and the New Zealand Ministry of Education (MINEDU) (1999) was used for data collection. The validation of the instrument was established by two specialists in the field of educational technology and one from measurement and evaluation. The instrument possessed content validity and was subjected to Cronbach's Alpha Reliability Coefficient. A reliability co-efficient of 0.89 was obtained. Data collected were analyzed using mean scores and standard deviation. For an item to be accepted as agreed it has to have a mean score of 2.50 and above while, items that score a mean of below 2.50 are regarded as disagreed.

Results

The results of the analysis are shown below:

Research Question 1: What is the level of awareness of Federal Colleges of Education lecturers on ICT resource?

Table 1: Mean and standard deviation of FCE lecturers on the level of their awareness on ICT

S/N	Items	X	SD	Remark
1	I am aware that computer can be used for content delivery	2.85	1.38	Agree
2	I am aware that computer can be used to assess students' Performance	2.59	1.22	Agree
3	I am aware that computer can be used for keeping students' records.	3.30	1.60	Agree
4	I am aware that ICT motivates teaching and learning	3.24	1.54	Agree
5	I am aware that AUTOCARD is an important package for teaching and learning in graphics	2.35	1.78	Disagree

The results in table 1 showed that the mean responses of the lecturers are 2.85, 2.59, 3.30, 3.24 and 2.35 and standard deviation of 1.38, 1.22, 1.60, 1.54 and 1.78. All the items were accepted as agree except item 5 which scored disagree. The results indicate that lecturers who took part in the study are fully aware the use of ICTs in content delivery.

Research Question2: What types of the ICT resources are available and used in content delivery in Federal Colleges of Education in Nigeria?

Table 2: Mean responses and standard deviation of lecturers on the types of ICT resources that available and used for content delivery

S/N	Items	X	SD	Remark
1	Hardware like computers, printer, scanner, camera etc are available and used in content delivery.	2.75	1.34	Agree
2	Software like online database, invisible websites, subject directory, excel, are used in content delivery.	2.39	1.99	Disagree
3	Internet are used to obtain information for content delivery.	2.40	1.98	Disagree
4	Ict infrastructures are available for content delivery.	2.45	1.94	Disagree
5	Smartboard and power point projectors available and Used for presentation of lessons.	2.47	1.88	Disagree

Table 2 indicates that all the items scored less than 2.50 except item 1 which had a mean score of 2.75 and standard deviation of 1.34. It can be therefore, said that ICT resources are not available and are not used in content delivery in FCE in Nigeria.

Research Question 3: What are the challenges lecturers faces in the use of ICT resources for content delivery in Federal Colleges of Education in Nigeria?

Table 3: Mean responses and standard deviation of lecturers on the challenges faced in the use of ICT resources for content delivery

S/N	Items	X	SD	Remark
1	Lecturers' inadequate ICT skill.	3.50	1.66	Agree
2	Insufficient knowledge of appropriate software.	2.40	1.98	Disagree
3	Insufficient knowledge	2.40	1.98	Disagree
4	Irregular power supply. Inadequate facilities to support the full application of ICT	2.42	1.91	Disagree
5	Poor infrastructure	2.38	2.00	Disagree

The results in table 3 showed that all the items were accepted as disagree because they had a mean score of less than 2.50. Only item 1 scored a mean of 3.50 and a standard deviant of 1.66. The result shows that lecturers in FCE are faced with serious challenges in the use of ICTs in content delivery.

Findings

- (i) Lecturers who took part in the study are fully aware the use of ICTs in content delivery.
- (ii) ICT resources are not available and are not used in content delivery in FCE in Nigeria.
- (iii) Lecturers in FCE are faced with serious challenges in the use of ICTs in content delivery.

Discussion

The finding of this study reveals that most of the lecturers in FCE are aware the use of ICTs in content delivery. The finding of this study thus confirmed the proposition of UNESCO UNEVOC (2009) which states that information and Communication Technologies (ICT) are becoming increasingly important in education and training and are opening up new learning pathways which can provide wider spread access to education and training.

The finding from this study shows that ICT resources are not available and are not used in content delivery in FCE in Nigeria. This finding also corroborates with the findings of Adeogun (2003) rapid accessibility is sometimes faced with problems either in getting connected or retrieving information in developing countries This also agreed with the findings of Gambari and Adaeze (2007) observed that ICTs inadequacy in academic institutions was invigorated by budgetary constraints while Oketunji (1999) opined that most lecturers are not aware of the vast resources available on the Internet in developing countries.

Similarly, the finding of this study is in consonance with that of Onasanya, Shehu and Oduwaiye (2010) that the level of competence and skill acquisition of colleges of education and polytechnics lecturers in the use of ICT facilities and equipment is discouraging. The result from this study also shows that lecturers in FCE are faced with serious challenges in the use of ICTs in content delivery. This finding support Yusuf (2005a) and Ofodu (2007) who submitted that lack of knowledge of how to evaluate the use and role played by ICT in teaching, Inadequate facilities to support the full application of ICT and irregular power supply in the country is a major obstacle to the use of ICT in education.

Conclusion

It is concluded from this study that lecturers in Federal Colleges of Education are aware of the existence and importance of ICT in content delivery. The study also found that ICTs like Smart board and power point projector are not available and used for presentation of lessons by the FCE lecturers in their content delivery. There were a lot of challenges to the effective use of ICT resources in content delivery by lecturers in FCE. The study showed that the major challenge lectures face in using ICT in content delivery in FCE is irregular power supply. There is therefore, the need for the government to provide ICT facilities available for teaching and learning in tertiary institutions in Nigeria and also stable power supply.

Recommendations

Based on the findings of the study, the following recommendations are made:

- (i) Lecturers should possess necessary ICT skills that will enable them to use ICT resources in content delivery. There should be workshops, seminars, conferences in-service training and capacity building training programmes and skilled development of teachers that will encourage them to have the requisite skill, competence and exposure to enable them to be more proficient in using ICTs in teaching/learning activities.
- (ii) The government should ensure that a stable power supply is provided in the country. This will go a long way in making ICT or e-learning practicable in FCE.
- (iii) The government should increase funding for the educational sector with emphasis on ICT that will help improve the level of ICT facilities in the schools.

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