
THE UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN NIGERIAN COLLEGES OF EDUCATION

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Abstract

The study examined the utilization of information and communication technology (ICT) in Nigerian Colleges of Education. The study investigated the level of use of ICT facilities in the Colleges, the attitude of using ICT facilities for teaching and learning. The laudable benefits of utilizing ICT and the challenges of using ICT in Colleges of Education. The descriptive survey design was used for the study. The population comprised of students and lecturers of the Federal College of Education, Osiele, Abeokuta, Ogun State. Sample comprises of 320 students and 40 lecturers randomly selected from different schools in the college. A self designed questionnaire tagged "ICT" and Colleges of Education (ICTCOE) was used to collect the data for the study. Data collected for the study were analyzed using frequency counts and percentage scores. The study revealed that ICT facilities were lacking in the Colleges of Education and students and lecturers were to be exposed to the use of ICT. However, the study revealed the benefits of utilizing ICT in Colleges of Education which include making teaching-learning more enjoyable, assisting the outreach/distance learning programme, helping lecturers to be exposed to ICT compliance, improving quality of work by both the lecturers and the students. Irrespective of these laudable benefits, the study also revealed some of the challenge facing ICT in Colleges of Education as: epileptic power supply, lack of computer literate lecturers, high cost of

purchasing computers in the colleges, and lack of fund. It was therefore recommended that government should increase the funding of the education sector. There should also be steady training for teachers on computers and ICT skills acquisition.

Keywords: Utilization, Information and Technology, Communication, Colleges of Education.

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It is not a gain saying that educational system around the globe are under immense pressure to use information and communication technologies (ICTs) and teach students that required knowledge and skills in the 21st century culture. Teacher education institutions and programmes must provide the leadership for pre-service and in-service teachers and model the new pedagogies and tools for learning. Developing generally and socio-economic transformation in our current world are configured on the use of information and communication technologies (ICTs). ICTs today according to Eda (2011) are a major factor, in shaping the new globe economy and producing rapid changes in society. For education to harvest the benefits of ICTs in learning, it is expedient that pre-service and in service teachers have residual knowledge, skills and competences.

ICT can provide quick access to ideas and experiences from a wide range of people, communities, and cultures. The acronym ICT means information and communication technology. Wali (2001) sees ICT to comprise of various kinds and sizes of computers. The computers are connected through telephone to facilitates the sharing of data they house and the data comes in different form of texts, sounds and pictures. Adeoti (2005) agrees with the above and also added that ICT is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computers and satellite etc.

Sulaiman (2010) observes that Nigeria had a late start in the use of computers; but the growth in their use has been quite commendable. The computer installation are widely distributed in most of the higher institution, like universities, colleges of education polytechnics, government departments and agencies, banks, commercial establishments, and industries. The Nigerian university campuses are now full of information and communication technology facilities enabling lecturers and students to do their research and other academic works using ICT devices.

Likewise, note with happiness that both the Federal Government of Nigeria and other international funding agencies are interested in the general development of ICT in higher education in Nigeria. The implication of this view is that natural state of the brain is to learn; however, not everyone learns in the way. In other words, given interesting and rich-learning environment and supportive and stimulating teachers, student will learn; and with respect to ICT, students having short attention span may spend long periods engaged in meaningful and interesting computer-related activities.

In this respect, ICT provide opportunities for others across the country and across the globe. They also provide new tools to support their collaborative learning in the classroom and online (Eda 2011).

Eda (2011) observes that the implication of ICT on teaching and learning process is the continuous shift from teaching to learning. Technology has created a situation where students will live to learn to navigate through large amounts of information, to analyze and make decisions and to master new knowledge domains in an increasingly technological society. Shifting the emphasis is from teaching to learning can create a more interactive and engage learning environments for teachers and students. The various ICT facilities used in the teaching/learning process in schools according to Babajide and Bolaji (2003), Bryers (2004), Bandele (2006) and Ofodu (2007) include, radio, television, computers, overhead projector, optical fibres, fax machines, CD-Rom, internet, electronics notice board, slides, digital multimedia, videos/VCD machine and so on. It appears some of the facilities are not sufficiently provided for teaching-learning process in the Colleges of Education. This might account for why lectures are not making use of them in their leaning. According to Ajayi (2008), the use of these facilities, involves various method which include systematized feedback system computer-based operation/network, video conferencing and audio conferencing, internet/worldwide websites and computer assisted instruction.

It must be noted that, the effective utilization of various method of the ICT in teaching learning depends on the availability and utilization of these facilities and teachers competence in using them. This has hindered the extent at which lecturers expose to the utilization of ICT in teaching. Studies like Yusuf (2005), Ofodu (2007), Ajayi, Ekundayo and Haastrup (2009) has indicated problems facing the use of ICT in the teaching/learning process in institution of learning to include irregular power supply, inadequate computer literate teachers (Oyebanji, 2003; Dabesali, 2005; Kwache, 2007) inadequate fund (Ogunmilade, 1988; Nwite 2007) reluctance to change (Selwyn, 1997) among others.

Purpose of the Study

The purpose of this study is to:

- a) Examine the level of availability of using the ICT facilities in Colleges of Education.
- b) Assess the capacity of using ICT facilities in Colleges of Education.
- c) Investigate the perceived benefits of using ICT for teaching in Colleges of Education.
- d) Investigate the perceived problems of using ICT in Colleges of Education.

Research Question

The following research questions were raised to guide this study.

- i) To what extent are the ICT facilities available for teaching in Colleges of Education in Nigeria?

- ii) To what extent are teachers and students in Colleges of Education exposed to ICT facilities?
- iii) What are the perceived benefits of ICT in Colleges of Education?
- iv) What are the problem facing the adoption of ICT in Colleges of Education in Nigeria?

Methodology

The descriptive survey design was used for this study. The population for the study consisted of students and lecturers of the Federal College of Education, Osiele, Abeokuta, Ogun State. Sample for the study is made up of 320 students and 40 lecturers randomly selected from different schools in the college. A self-designed questionnaire tagged “ICT and Colleges of Education (ICTCOE) was used to collect the data for the study. The instrument was validated by research experts. The cron bach Alpha was used to determine the reliability of the instrument and the coefficient was 0.85. The questionnaire was administered by the researchers in the college with the help of research assistants. Personal contacts of the researchers with the respondents enhanced good and prompt response from the respondents. Data collected were analyzed using frequency counts and percentage scores.

Table 1: Availability of ICT for Teaching in Colleges of Education

S/N	Items	Available	%	Not Available	%
1	Computer	146	40.5	214	59.5
2	Radio (Tape recorder)	208	57.8	152	42.2
3	Projectors	53	14.7	307	85.3
4	Television sets	212	58.9	148	41.1
5	Video	193	53.6	167	46.4
6	Slides	126	35.0	234	65.0
7	Films stripes	108	30.0	252	70.0
8	Electronic notice boards	56	15.6	304	84.4
9	Internet	83	23.1	277	78.9
10	Disc player	146	40.5	214	59.4
11	Bulletin boards	215	59.7	145	40.3
	Mean		39.0		61.0

Presentation of Result

Research Question: To what extent are the ICT facilities available for teaching in College of Education?

Table 1 showed that ICT facilities like computers, radio (tape records), television sets, video disc players, bullet boards were available in the college, while some facilities, film strips are scantily available in the college.

Research Question 2: To what extent are lecturers and students in College of Education exposed to using ICT facilities?

The Utilization Of Information And Communication Technology In Nigerian Colleges Of Education- Amos Adekunle Adediran; Esther Oluwatoyin Adeyanju and Mary Ekekhomen Tyokase

Table 2 showed the extent to which the lecturers and students are exposed to the use of ICT facilities in College of Education. Only 17.8% of the respondents agreed that there were functional internet facilities for browsing in the college, while 25.6% of them agreed that lecturers were exposed to the use of ICT in teaching. 39.4% of the respondents also agreed that there were enough ICT materials to teach students. Of the respondents, 23.9% agreed that lecturer had the knowledge of the use of ICT, while 26.1% agreed that there were periodic training for lecturers in the use of ICT respectively.

On the average 18.2% of the respondents agreed that lecturers and students had the necessary exposure to the use of ICT. This indicates that lecturers and students were to some extent exposed to the use of ICT.

Table 2: Exposure of Lecturers and Students to the use of ICT

S/N	Items	Agree	%	Disagree	%
1	There are functional internet facilities owned by the college for browsing.	64	17.8	296	82.1
2	Lecturers are exposed to the use of ICT in teaching.	92	25.6	268	74.2
3	There are enough ICT materials to teach the students.	142	39.4	218	68.5
4	Lecturers are knowledgeable in the use of ICT.	86	23.9	274	76.1
5	Students are knowledgeable in the use of ICT.	94	26.1	266	73.8
6	Periodic training is organized for lecturers on the use of ICT.	25	6.8	335	93.1
7	Periodic training is organized for students on the use of ICT.	22	6.1	338	98.8
	Mean		18.2		81.8

Table 3: Perceived Benefits of ICT in the Colleges of Education

S/N	Items	Agree	%	Disagree	%
1	ICT help in making teaching-learning more interesting.	310	86.1	50	13.9
2	ICT helps in distance learning programme.	256	71.1	104	28.9
3	ICT enhances quality to work of both teachers and students.	321	89.2	39	10.8
4	It makes teachers to be-to-date in their various disciplines.	306	85	54	15
5	It helps teachers to reach out to colleges in other part of the country.	317	88.1	43	11.9
6	ICT enhances efficiency of values.	317	88.1	43	11.9
7	ICT helps reduce bureaucracy in administration.	298	82.2	64	17.8
8	It makes decision-making in the education sector easy and faster.	293	81.4	67	18.6
	It enhance the management of financial records in schools.	306	85	54	15
	Mean		84.1		15.9

Research Question 3: What are the perceived benefit of using ICT in Colleges of Education?

Results in Table 3 showed the perceived benefits of ICT in the Colleges of Education. These include quality of work of both lecturers and student (89.2%) helping teachers to out to colleges in other parts of the country (88.1%); enhancing efficiency of workers (88.1%) and making teacher-learning more interesting (86.1%). Other perceived benefits include making teaching to be up to date in their various disciplines (85%) and enhancing the management of financial records (85%); reducing bureaucracy in administration (82.2%) making easy and faster the decision making in the education sector (81.4%) and helping in distance learning programmes (71.1%).

Research Question 4: What are the challenges facing the adopting of ICT in Colleges of Education?

From Table 4, it shows that, the major challenges facing the adoption of ICT in Nigerian Colleges of Education is irregular power supply (98.1%). Another challenge facing the adoption of ICT is lack of computer literate teachers (89.4%), other major challenges are lack of fund in the college (84.7%); inadequate facilities to support the application of ICT (82.2%) and the fear of exposing too much information on the colleges to the public (82.2%).

The Utilization Of Information And Communication Technology In Nigerian Colleges Of Education- Amos Adekunle Adediran; Esther Oluwatoyin Adeyanju and Mary Ekehomen Tyokase

Table 4: Challenges facing ICT in Colleges of Education

S/N	Items	Agree	%	Disagree	%
1	Most Colleges of Education lack computers literate lecturers.	322	89.4	38	10.6
2	There is lack of computer information technology in the Colleges of Education.	296	82.2	64	17.8
3	Irregular power supply hinders the use of computers in Colleges of Education.	353	98.1	07	1.9
4	The cost of purchasing computer in the school is high.	204	56.7	156	43.3
5	There are inadequate facilities to support full application of the information communication technology.	304	84.4	56	15.6
6	The non-inclusion of ICT programmes in teachers training curriculum affects its adoption in Colleges of Education.	294	81.7	66	18.3
7	Teacher are very reluctant to adapt to use of ICT in teaching-learning process.	256	71.1	104	28.9
8	Lack of fund hinders colleges from embracing ICT.	305	84.7	55	15.9
	There is fear of exposing too much information on the institution to the public.	296	82.2	64	17.8
	Mean				

Discussion of Findings

The study indicated that ICT facilities such as computer, projectors, electronic notice boards, internet films stripes were not available on Colleges of Education. This could be as a result of inadequate funding of the school by the government. This finding has a serious consequences on the resourcefulness of the lecturers. Even if these lecturers know how to use the ICT in their teaching, non-available of the facilities, may hinder them.

The study also indicated that lecturers and students were to a little extent exposed to the utilization of ICT. This is a pointer to the low level of utilization in the teaching-learning in Colleges of Education. This indicated that most of the lecturers are still fond of the old method of chalk and talk, the practice which will make them lag behind in the world of ICT. It was also revealed that the perceived benefits of using ICT in colleges include making teaching-learning interesting, helping the distance

learning programme; help teachers to be up-to-date, enhancing quality of work by both lecturers and students. This findings may not be connected with the fact that the lecturers are aware of the usefulness of ICT in the teaching-learning. This finding is inconsonance with Kwache (2007) who submitted that the utilization of ICT makes institutions more efficient and productive, enhance and facilitate pedagogical activities. In the same vain Adeoti (2005) agreed that the fact that ICT is accurate, fact and reliable and has the ability to store and disseminate large information within the shortest periods, makes it a good and reliable instrument for part-time programme.

The study showed that irregular power supply is also a big challenge causing the utilization of ICT in Colleges of Education in the country. This problem of irregular supply of power is a national problem that has effected the economy sector in the country. This can also contribute to the level of finding in the Colleges of Education. Since the colleges are not well funded, that is why the management could not find alternative of supplying electric power to cushioning the effect of irregular power supply by the government. This finding support Yusuf (2005) and Ofodu (2007) who submitted that irregular power supply in the country is a big problem to the usage of ICT in all areas of the economy.

The study also showed that most lecturers are illiterate when it comes to the usage of computer. This may be the reasoning why computer programme is not included in teacher training programme. This finding is in support of Sulaimon (2010) and Kwache (2007), Dabasaki (2005) and Ogebanji (2003) who submitted that lack of skilled manpower to manage available system and facilities for ICT debar its utilization in the Colleges of Education. Other challenges causing the utilization of ICT in colleges include inadequate facilities, high cost, reluctance to adapt to use of ICT in teaching-learning. This finding is in consonance with Akinbuilo (2007).

Conclusion

The finding of this study has shown that Nigerian Colleges of Education are not moving along with the trends of using computer to teach their students. The ICT facilities are not available in the schools, the ability for using by both lecturers and students is very low. Despite the huge benefit of using ICT to teach the student for easy assimilation, there are a lot of factors hindering the utilization of ICT in the Colleges of Education. For most institution to move along with the trend of using ICT in the teaching-process, it is therefore expedient for Nigerian institution and individuals to move along with the trend of using ICT in their respective organizations.

Recommendations

In order to make the teaching-learning process more interesting in most of the higher institutions, the following recommendations are therefore made to support the process.

The Utilization Of Information And Communication Technology In Nigerian Colleges Of Education- Amos Adekunle Adediran; Esther Oluwatoyin Adeyanju and Mary Ekehomen Tyokase

- 1) The government should increase funding for the entire educational sector with emphasis on ICT, this will help improve the level of ICT facilities in the institutions.
- 2) Seminars, workshops and conferences should be organized to train the lecturers, for the purpose of using ICT in their teaching activities.
- 3) Computers should be provided in the school for the usage of the lecturers and students.
- 4) Fund should be provided for the usage of lecturers to purchase laptop for their usage in the classroom.
- 5) School management should provide internet facilities in the schools.

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