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UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY BY LECTURERS IN KASHIM IBRAHIM COLLEGE OF EDUCATION MAIDUGURI, BORNO STATE NIGERIA

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Abstract

Teaching is becoming one of the most challenging professions globally. This is because knowledge is expanding rapidly, hence modern technologies demand that teachers should learn how to use these technologies in teaching and learning. While new technologies increase teachers' professional development particularly in the field of Information and Communication Technology (ICT), being computer literate has become paramount as it provides flexible environment for teaching and learning at any time anywhere. This study examined utilization of ICT by lecturers in Kashim Ibrahim College of Education Maiduguri, Borno state Nigeria. The study focused on the lecturers' ICT knowledge, ICT incentive and social networking. The data were collected from 120 lecturers by means of closed ended questionnaire titled "ICT Professional Development of Lecturers (IPDLO)'. The data was analyzed using statistical package of social science (SPSS) version 20.0. Decisions were made based on the mean scores of 2.50. Any mean score that was 2.50 and above was accepted while below 2.50 was rejected. The findings of the study indicated that majority of lecturers in the college are computer literate but they do not utilize the knowledge of ICTin teaching and learning. The findings also recorded that majority of the respondents do not appreciate the use of computer based-

test. It is recommended among others that the college management should equip the department/school with computer and internet facilities and other necessary tools like projectors and video viewers because the absence of these facilities discourages and sometimes disables the lecturers from the use of ICT.

***Keywords**: Information, Communication, Technology, lecturers, college of education.*

INTRODUCTION

Integration of Information and Communication Technology (ICT) is high on the education reform agenda worldwide particularly in developed countries. Often ICT is seen as an indispensable tool to fully participate in the knowledge society (Peeraer & Van Petegem, 2011). ICT is therefore perceived to provide a window of opportunity for educational institutions to harness and use technology to complete and support the teaching and learning process. It is against this background that this paper strives to evaluate the Utilization of ICT by lecturers in the college.

ICT professional development is seen as a vehicle to enable transformative change in teachers' practice (Russell, 1999). However, what constitutes effective models of continuing professional development is highly contested (Becher, 1999; Knight, 2002; Schulman, 1987) in Prestidge (2008). Long standing perception of ICT professional development as ICT skill workshop or training approaches, indicate 'retooling' of teachers that tends to augment the existing curriculum by developing teachers competencies focused on specific types of applications. According to Prestridge (2008), ICT skills based training is considered a valuable competent of ICT professional development as teachers perceive their levels greatly influencing their use of ICT in the classroom.

In Nigeria, National Economic Empowerment Development Strategies (NEEDS, 2005), cited by Gusen (2010) set a machinery in place as a measure to meet up with global challenges in the area of ICT. In order to achieve this, government set out six goals to promote the use of ICT

capabilities at all levels. Its goals among others were set to ensure 80% of graduates of tertiary institutions are computer literate and 50% of teachers at all levels are trained in computer skill. These shows that educational systems are under pressure to use ICT in teaching and learning (Maccqual & Ichakpa (2014). To this effect teachers at all levels must comply by updating themselves in developing their professional skills in ICT. It is against this background that the researchers engaged in the study of ICT professional development focusing on the academic staff of Kashim Ibrahim College of Education, Maiduguri Borno state. Newhouse, Trinided, and Clerkson, (2009) argued that as educational institutions move towards the mainstream use of ICT in teaching and learning, there are to be some critical steps and vital ingredients needed for the successful infusion of ICT into our educational system. They went further to pose that although stand-alone computers have been in most schools for more than two decades now, networked ICT is relatively new for many schools as they continue to grapple with how to use ICT to enhance teaching and learning in our schools. The dream of having 80% of tertiary institution graduates becoming ICT compliance directly implies that all their lecturers must be computer literate and ICT competent. Their competency can be deduced to some extent from their ownership of computer at home as well as or in school, pre-service exposure to ICT courses and in-service training received in the field of ICT are at all desired expectations of those saddled with the responsibility of changing the behaviour of learners at the teachers' education level.

Information and communication technology (ICT) play a pivotal role in enhancing the quality of teacher education. They are particularly important in helping teachers and students to perform more effectively. To make the best of use of ICT, teachers must be equipped with adequate ICT knowledge and usage competencies.

Competency has been defined in the literature as the state or quality of being adequately or well qualified to perform a task. For example, Yildrim and Yildrim, (2009) cited Mandi and Krause (2003), defined competence as a system of prerequisites for successful action in certain domains that can be influenced by practice and learning. Furthermore, Clark (2008)

opined that a person gains competencies through education, training, experience or natural ability. The competencies are observable or measurable attributes of knowledge, skills and abilities. These knowledge, skills and abilities must distinguish between superior and other performer. The demand for teachers with high ICT competencies and skills will keep increasing.

The benefits of ICT for teachers cannot be overemphasized. Gusen (2010) has identified the following six benefits of ICT for teachers as follows: 1) ICT facilities sharing of resources, expertise and advice; 2) Greater flexibility in when and where tasks are carried out; 3) Gains in ICT literacy skills, confidence and enthusiasm; 4) Easier planning and preparation of lessons and designing materials; 5) Access to up-to-date to students and school data, anytime anywhere. 6) Enhancement of professional image projected to colleagues; 7) Students are generally more 'on task' and express more positive feelings when they use computers than when they are given tasks to do.

Purpose of the Study

The main purpose of this study was to examine the extent of the utilization of Information and Communication Technology (ICT). The specific objectives are as follows:

1. To determine the extent of knowledge of ICT of the lecturers in Kashim Ibrahim College of Education Maiduguri.
2. To ascertain the lecturers' degree of willingness to use ICT facilities in teaching and learning.
3. To find out whether or not respondents enjoyed some incentive for complying with this new technology in teaching industry.

Research Questions

For the purpose of achieving the objectives of this study, the following research questions were postulated:

1. What are extents of ICT knowledge among lecturers of Kashim Ibrahim College of Education?

2. To what extent do they use social networking in teaching and learning?
3. What incentive do they enjoy for their willingness to become ICT literate?

Research Hypothesis

One null hypothesis was formulated to test the ICT knowledge of male and the female lecturers:

H_0: There is no significant difference in the ICT knowledge of male and female lecturers in the college.

Materials and Methods

The study adopted a descriptive survey design. The choice for this design was informed by the position of Obioma (2007) and Ugundulunwa (2016) that survey research design provides information on facts, opinions, attitudes and perceptions of people on events, problems or situations. A Study that dealt with the description of human being activities and perception of a situation, justified the use of the design.

The population of the study consists of all lecturers in Kashim Ibrahim College of Education, Borno state. The college had about 220 academic staff at the time of this research. Simple random sampling techniques was used to select 120 respondents (73 male and 47 female) lecturers from the population.

A structured questionnaire titled "Utilization of ICT by Lecturers' Questionnaire (UICTLQ) was developed by the researchers for data collection. The first part contains the Bio-data of the respondents while the second part consist of scenarios questions on ICT development and usage. The second part was based on a four-point scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD) and was weighted assigning values: 4, 3, 2, 1 respectively for positive statements and in reverse order for negative statements. The instruments have 24 items.

The instrument was validated by senior colleagues in the College. The reliability of the instrument was determined by conducting a trial-testing. Adopting Cronbach alpha procedure, the reliability co-efficient of

0.87 was obtained. The instrument was therefore, considered adequate to measure lecturers' level of computer literacy.

The researchers personally administered copies of the questionnaire to the respondents during the second semester examination of the 2018/2019 academic session. The completed questionnaires were collected with 100 percent return. The data collected were analyzed according to research questions and the hypothesis. Descriptive statistic of mean and standard deviation were used to answer the research questions while t-test statistics was used to test hypothesis at 0.5 level of significance. If the calculated mean score of an item was 2.50 or above, it was accepted as a factor, but if it was below 2.50, it was rejected.

Research Question 1: What are the extents of ICT knowledge among lecturers of Kashim Ibrahim College of Education?

Table 1: Mean Scores of Lecturers' ICT Knowledge

S/N	Item	N	Mean	SD	Decision
1	I am computer literate	120	2.82	1.12	Accept
2	I have a personal computer	120	3.35	.90	Accept
3	I don't have a personal computer	120	1.46	.88	Reject
4	ICT training in my school is for all gender	120	3.22	1.09	Accept
5	I have an idea of what ICT is all about	120	3.17	1.06	Accept
6	ICT knowledge enhances my teaching	120	3.06	.78	Accept
7	My teaching method requires the use of ICT	120	2.95	.98	Accept
8	The course I am teaching has nothing to do with ICT	120	1.78	.99	Reject
9	Computer Based-test is more efficient than paper-Based-Test	120	2.43	.89	Reject
10	I use computer Based-Test for my students	120	1.95	.93	Reject

11	Computer Based-Testing enhanced consistency and security of exams	120	2.34	.96	Reject
12	All lecturers in the college are now computer literate	120	2.20	.92	Reject

Source: Field Survey, 2019

The results in table 1 shows 6 items out of the 12 items were rated high by the respondents as follows: I have a personal computer (3.35); ICT training in my school is for all gender (3.22); ICT knowledge enhances my teaching (3.06); my teaching method requires the use of ICT (2.95), I am computer literature (2.82) while I don't have a personal computer (1.46); the course I am teaching has nothing to do with ICT (1.78); I use computer Based-Test for my students (1.95); all lecturers in the college are now computer literate (2.20); Computer Based-Testing enhanced consistency and security of exams (2.34) and Computer Based-Test is more efficient than paper-Based-Test (2043) were rated low.

Research Question 2: To what extent do they use social networking in teaching and learning?

Table 2: Mean scores of Lecturers on their Professional uses of Networking in Education

S/N	Item	N	Mean	SD	Decision
1	I have a personal e-mail account	120	2.76	1.11	Accept
2	I cannot remember my username and password	120	1.99	1.67	Reject
3	I can use search engine to search for document	120	2.29	1.07	Reject
4	I cannot use search engine to search for documents	120	2.00	1.06	Reject
5	I can use any browser to brows any document of my choice	120	3.18	.94	Accept
6	I can use different links to download documents	120	3.06	1.89	Accept

7	I cannot download document	120	1.89	1.01	Reject
8	I have personal e-mail box for receiving and sending academic documents in school and at home	120	2.55	1.60	Accept

Source: Field Survey, 2019

The table 2 above indicates that four of the eight items were rated high as follows: I have a personal e-mail account (2.76); I can use any browser to brows any document of my choice (3.18); I can use different links to download documents (3.06) and I have personal e-mail box for receiving and sending academic documents in school and at home (2.55) while other four items were rated low. Thus; I cannot remember my username and password (1.99), I can use search engine to search for document (2.29); I cannot use search engine to search for documents (2.00); and I cannot download document (1.89), were rated low.

Research Question 3: What incentive do they enjoy for their willingness to become ICT literate?

Table 3: Mean Scores of Lecturers on ICT Incentive

S/N	Item	N	Mean	SD	Decision
1	There is provision on the use of ICT in my school	120	2.65	.99	Accept
2	There are facilities for the training of lecturers on ICT	120	3.00	.69	Accept
3	ICT centers should be built in my school	120	2.80	1.47	Accept
4	Lecturers in the college were given laptops on loan	120	2.13	1.65	Reject
5	All lectures were given free laptop to enhance teaching/learning	120	1.47	.89	Reject

Source: Field Survey, 2019

Table 3 shows that three item were rated high, thus: there is provision on the use of ICT in my school (2.65); there are facilities for the training of lecturers on ICT in the college (3.00); building of ICT center (2.80) while

given laptops on loan to lecturer (2.13) and given free laptop to enhance teaching/learning (1.47) were rated so low.

Table 4: Test of difference in mean knowledge of computer between male and female lecturers.

Group	N	Mean	S.D	Df	T	P.Value	Decision
Male	73	30.36	3.38	118	-1.58	0.116	H_0:
Female	47	31.32	3.04		-1.62		Retained

P Value = 0.05

Result from table 4 revealed that there was no significant difference in knowledge of computer because the p-value 0.116 is greater than the level f significant (α=0.05). Therefore, the null hypothesis is retained.

Discussion

The purpose of this study was to determine the level of ICT knowledge among lecturers in Kashim Ibrahim College of Education Maiduguri, Borno state and also to ascertain their level of using social networking in teaching and learning. The analysis of the data in research question one reveals that the lecturers' level of ICT competency is satisfactory as majority of the mean scores of having an idea of ICT is very high. This finding is consistent with NEEDs, 2005 cited by Gusen (2010) that one of the goals for education in Nigeria is to ensure that 50% of teachers at all levels are trained in computer skills.

The result from research question two reveals that the lecturers in the college do not make much use of ICT to facilitate teaching and learning especially in the classroom settings. They do not appreciate computer based-test which invariably contravene Gusen (2010) assertion that computer based-test is more efficient than paper based-test. However, Solomon, Nwamou and Okunamiri (2014) maintain that teachers need vision of technologies potentials to apply them in teaching and learning. In the same vein Robinson and Latchem (2003) supported the idea of teachers are to facilitate teaching/learning and make it meaningful to

individual learners through the use of Information and Communication Technology (ICT).

Another finding was that the mean score of lecturers' use of social networking revealed that social network services distract and therefore majority of the respondents do not engage in social networking. This was contrary to literature on the use of internet and web based communication technologies, being used to support teachers' on-going professional development and networking (Solomon, Nwamuo and Okunamiri, 2014).

The result of the hypothesis tested showed that there was no significant difference in knowledge of computer by gender because the p-value 0.116 is greater than the level of significant ($\alpha=0.05$). This invariable depicts that majority of the respondents both male, female lecturers in the college are computer literate.

Conclusion

In this study the researchers investigated the ICT professional development and usage among lecturers in Kashim Ibrahim College of Education Maiduguri, Borno State. ICT is capable of making lecturers more effective in their profession. Its use could transform teaching and learning activities in the college and enhance the standard of education. The findings therefore, indicate that there are possibilities and challenges in the lecturers' ICT professional development in the college. Some of the possibilities among others are the lecturers recognized the importance of application of ICT in teaching and learning and already there are policies on ground for training of lecturers on ICT skills in the college. Some of the challenges include inability of some of the lecturers to have personal computer (Laptop).

Recommendation

Based on the findings of this study, recommendations are as follows:

1. The college management should equip each department/school with computer and internet facilities and other necessary tools like projectors and video viewers. Absence of these facilities would disable the lecturers from the use of ICT.

2. The study also recommends that lecturers should improve on their ICT's knowledge and also sacrifice on their own part to have personal computers. This will in turn help to improve on their ability to use ICT in teaching and learning at any time anywhere.
3. Furthermore, there should be training and retraining in the use of ICT for the academic staff to enhance their use of ICT facilities to facilitate the process towards realization of NEEDs goals and the nation's goal of Vision 2020..
4. Electricity supply in the college should also be given priority in the attention. This will enhance application of ICT facilities in teaching/learning at any time anywhere.
5. The college management ICT facilities available for use to facilitate the process towards realization of NEEDs goal and the nation's goals of Vision 2020.
6. This study is limited to academic staff only. Therefore, there is the need for a study to cover nonacademic staff a wider generalization of the result.

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