



Analysis of Lecturers' Attitude Towards Integration of Icts in Teaching University Students in Yobe State, Nigeria

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Received: November, 13th 2019

Revised: March, 13th 2020

Accepted: May 9th 2020

ABSTRACT

The study examines the lecturers' attitude towards integration of ICTs in teaching University students in Yobe State, Nigeria. Descriptive research design of ex-post facto type was used with 125 participants drawn for the study. The respondents were measure with standardize instrument with reliability coefficient of 0.75 using Cronbach Alpha and the data collected was analysed using mean, standard deviation (SD) and t-test 0.05 level of confidence. The finding revealed that attitude of lecturers towards integration of ICTs in teaching undergraduate students was negative; level of lecturers' competency in the use of ICT facilities was low and there was statistically significant difference between male and female lecturers attitude in favour of male lecturers. The study recommends the following based on the findings of study: There is a need for the Government, National University Commission (NUC) and other Education stakeholders to respond positively and provide enough ICT infrastructures in all University across the country so as to encourage lecturers to utilize them in their teaching.

Keywords: Lecturers' Attitude, ICT integration and University students

INTRIDUCTION

Information and Communication Technologies (ICTs) have become key tools and have a revolutionary impact on how people see and live in the world. The place of ICTs in education and the world in general cannot be ignored. Modern day businesses are conducted and facilitated through the use of telephones, fax machines and computer communication networks through the internet. This phenomenon has given birth to the contemporary e-commerce, e-government, e-medicine, e-banking, e-marketing, and e-education among others (Ololube, 2016). Bandele (2006) summed up that ICT is a revolution that involves the use of computers, internet and other telecommunication technology in every aspect of human endeavor. He posited that ICT is simply about sharing and having access to data with ease. It is regarded as the super highway through which information is

transmitted and shared by people all over the world.

Olorunsola (2017) as well as Oloruntegbe and Oduntuyi (2019) perceived ICT as the handling and processing of information (texts, images, graphs, instruction) for use, by means of electronic and communication devices such as computers, cameras and telephones. Twining and Henry (2007) also refers to ICT as electronic or computerized devices, assisted by human and interactive materials that can be used for a wide range of teaching and learning as well as for personal use. From these views, ICT could therefore be seen as tools for processing and sharing of information using all kinds of electronic device, an umbrella that includes all technologies for the manipulation and communication of information. As a result, if schools train children in yesterday's skills and technologies they may not be effective and fit in to tomorrow's world. This is a

sufficient reason for ICTs to win global recognition and attention.

For instance, ICTs are dependable tools in facilitating the attainment of one of the Millennium Development Goals (MDGs). Oloruntegbe and Oduntuyi (2019) pointed out that in order to attain the goal of Universal Primary Education by the year 2015; we must ensure that information and communication technologies (ICTs) unlock the door of education systems. This indicates the growing demand and increasingly important place that ICTs could receive in education. Since ICTs provides greater opportunity for students and teachers to adjust learning and teaching to individual needs, society is forcing schools to give an appropriate response to this technical innovation (Ajayi, 2008; Oyebanji, 2013). On similar vein, Hanushek and Woessmann (2015) opined that ICT is an existing and widely deployed technology that can be mobilized to step up the pace and scale of transformation in teaching and learning processes in higher education. ICT can be a crucial enabler in helping to achieve the SDGs through higher education, particularly in developing countries like Nigeria where closing the development gap requires substantial effort, innovation and investment (Yusuf, 2005; Oloruntegbe and Oduntuyi, 2019). This has necessitated the intensive use of ICT in teaching and learning in order to broaden the understanding of teachers, lecturers and students in Nigeria. ICT can better prepare students for the information age, and accelerate national developmental efforts (Albirini, 2011).

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). Information and communication technology 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. Mutuma (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). Introduction of ICT in education plays a role in shifting responsibility for learning from teacher to student and does not however remove the need for classroom leadership nor does it invalidate related traditional teacher skills and practices (Rogers, 2015).

The advancement in which ICT resources offer in higher education, can be evidenced through accessibility to quality resource materials and instructional delivery. This can only be attained when it is integrated into the instructional process in the education system. Productive instructional delivery enhances learners' creative and intellectual development through the use of ICT resources, using multimedia images, graphics, audio, text for high quality learning (Ezeoba, 2007). In order to build on existing knowledge, ICT today offers new tools for easy content delivery. However, this depends heavily on the attitude of lecturers toward its integration in teaching and learning process. Attitude has always been a subject of interest to many researchers as well as psychologist. It is considered as exciting and mysterious to some researcher. It can function as a shield to someone or it can even function as a weapon to someone. Having a certain attitude in life is crucial to people so as to help them live in harmony and towards better understanding of things around them. Teachers' attitudes, qualification and experience are factors associated with ICT use, both a positive

attitude about ICT use and ICT skills, in combination, are accepted precursors for effective use of ICT (Migliorino & Maiden, 2008). Lecturers' use of ICT applications is influenced by their attitudes towards ICT (Tondeur, Valcke & Van, 2008; Oyebanji, 2013).

Attitude is also important because of the fact that it is the controller of actual behaviour of an individual, consciously and unconsciously. Hence, the attitude of lecturers toward the attainment of a high level knowledge by students is worthy of being examined. Littlejohn (2006) described attitude as an accumulation of information about an object, person, and situation or experience, a disposition to act in a positive or negative way toward some objects. Attitudes toward any objects play an extremely important role in influencing subsequent behaviours towards it. Positive attitude towards ICT is critical if ICT is to be effectively integrated into the school curriculum (Olumorin, 2008). In other words, teachers' attitudes, whether positive or negative, affect how they respond to and use ICT. Therefore, information is required about teachers' attitudes for plans about future investments in ICT.

According to policy makers, ICT integration, takes place when teachers know how to incorporate and use ICT to teach in the classroom (Cuban, 2007). The assumption here is that once the teachers know how to use ICT to teach, the students will become engaged in using ICT as a tool to learn. ICT has become an important component of a school's curriculum, a support tool for providing teachers and students with enhanced teaching opportunities in the whole range of school subjects. In countries like USA, UK and Australia, the content of national curriculum statements provide clear evidence for this shift from the teaching of ICT alone to the infusion of ICT as a significant tool in the school curricular (Mugenda, 2009; Onasanya, Shehu & Oduwaiye, 2018). Nevertheless, for ICT to be integrated in teaching, it does not have to be put off the

curriculum but rather a tool to help in teaching. Nigeria recognizes the pivotal roles of ICT in the revitalization and development of the country's education system. Teachers perceive ICT as very useful and using computers makes teaching and learning easier. ICT integration in the Nigerian School system came with the 2001 National Policy on Information Technology tagged "Use IT." According to Farrel (2007) proper training of teachers on how to implement ICT offers crucial advice on selection, integration and evaluation of computer tools to support teaching and learning

An undergraduate degree (also called first degree, bachelor's degree or simply degree) is a colloquial term for an academic degree taken by a person who has completed undergraduate courses. It is usually offered at an institution of higher education, such as a university (Mugenda, 2009). Undergraduate students are the students at a College or University who has not received a first and especially a bachelor's degree. The pace at which ICT moves progressively in this contemporary age has brought significant changes to the entire way at which lecturers-students interact in their academics and also largely affected the general demands of the societies (Onasanya, Shehu & Oduwaiye, 2018). A cursory look at the tertiary institutions in Nigeria has shown that lecturers still rely much on the traditional lecture method of teaching rather than embracing the use of ICT. The stage of enlightenment in which ICT could be accessed and utilized in education is still low. Many lecturers hardly access and utilize the benefit of ICT in teaching their students. Thus, the lecture method and course materials/handout custom continue to dominate classroom activities either as an established attitude or as at the comfort of non-ICT compliant lecturers. In Yobe State University, Damaturu the use of ICTs for instructional delivery is not a norm despite the availability of ICTs facilities in the University. Similarly, the predicament of non-ICT utilization for teaching in Yobe State University, Damaturu is yet to be

established. It is in line with this that the researchers deem it fit to investigate lecturers' attitude towards integration of ICTs in teaching University students in Yobe State, Nigeria.

Purpose of the Study

The main purpose of this study is to investigate lecturers' attitude towards integration of ICTs in teaching University students in Yobe State, Nigeria. The study specifically focused to achieve the following objectives;

1. Determine the attitude of lecturers towards integration of ICTs in teaching University students in Yobe State, Nigeria
2. Examine the level of lecturers' competency in the use of ICT facilities in teaching University students in Yobe State, Nigeria

Research Questions

1. What is the attitude of lecturers towards integration of ICTs in teaching University students in Yobe State, Nigeria?
2. What is the level of lecturers' competency in the use of ICTs in teaching University students in Yobe State, Nigeria?

Research hypothesis

1. There is no significant difference between male and female lecturers' attitude towards integration of ICTs in teaching University students in Yobe State, Nigeria.

METHOD

The researchers adopted a descriptive research design of *ex-post facto type*. It involves finding information from respondents through a carefully designed questionnaire that sought information on particular area to facilitate a feedback. The responses can be further subjected to statistical inferences in order to arrive at a decision on the inquiries made. This designed was chosen because it provides a high level of general capability in representing a large population which this study dealt with. The population for the

study comprised 437 lecturers of Yobe State University, Damaturu, Nigeria from 5 faculties. The sample of the study is one hundred and twenty five (125) which was selected using quota sampling technique. Quota sampling is the sampling technique in which researchers randomly selected certain number of the respondents in proportion to their population. Thus, 30% from the population was selected. Out of 125 questionnaires distributed only 118 were retrieved and used for data analysis.

The Research instrument used for the study was questionnaire designed by the researchers to illicit responses from the lecturers; the questionnaire was named Lecturers' attitude and level of competency toward integration of ICTs in teaching University students in Yobe State, Nigeria (LACTIICCTUS). The questionnaire has three (3) sections. Section A contains bio-data information while section B contains the items that respondents are expected to express their opinion on attitude toward use of ICTs and section C contains the items that respondents are expected to express their opinion on the level of competency on the use of ICT. There are five (5) point-Likert type options i.e. Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD). The total numbers of items in the questionnaire are 1 to 30.

The questionnaire (LACTIICCTUS) was validated by two senior lecturers in field of science Education in the Department of Education. Their suggestions were used in producing the trial copy of the instruments. The items were restructured, modified and some were completely erased. Face and construct validity was carried out to ensure that the instrument measures the construct intended for the study. In order to determine the reliability index of the instrument, a pilot test was carried out. The instrument was distributed to some lecturers in Federal University of Gashu'a. The questionnaire were filled and returned. The reliability coefficient obtained was 0.75 using Crombach Alpha. By virtue of the value

obtained, the instrument was adjudged to be reliable for this study.

The researchers distributed the questionnaire to the selected lecturers' in all faculties. Face to face method of distribution was adopted by the researchers; an interval of two days was given for the return of filled questionnaires. This gave the respondents enough time to answer the questions adequately. The researcher wants the respondents to give their candid view/opinion and therefore do not intend to rush them in to filling and submitting at the point of distribution. The researcher also anticipates that not all questionnaire distributed would be returned and hence would distribute as many question as possible to deal with effectively with mortality which could be treat to internal validity of the study. The data gathered from the administration of the research instrument was analysed using Mean, standard deviation

(SD) and t-test statistical analysis. The arithmetic mean for the values was computed as $5+4+3+2+1= 15/5 = 3.00$ Therefore, any item with weighted mean of 3.00 was considered accepted and any item with weighted mean less than 3.00 was considered rejected as a decision rule. While t-test was used to test the null hypotheses at 0.05 level of confidence.

Results

Answering of Research Question

Research Question One: What is the lecturers' attitude towards the integration of ICTs in teaching University students in Yobe State, Nigeria?

Mean and Standard Deviation of Lecturers' attitude towards ICT integration in teaching University students

S/N	Items	Mean	SD	Decision
1	I have right attitude towards the use of ICTs	1.79	2.28	Disagree
2	I am ready to use ICT resources while teaching	1.87	2.42	Disagree
3	I am comfortable using ICTs resources in teaching-learning process	2.82	1.98	Disagree
4	ICT makes course more interesting	2.71	1.82	Disagree
5	ICTs skill is worthwhile	2.81	1.74	Disagree
6	I have phobia for ICTs equipment	3.37	0.36	Disagree
7	I won't have anything to do with ICTs	3.07	0.12	Disagree
8	ICTs cannot address the need of school system	3.23	0.24	Disagree
9	The state of facilities discourages me from using ICTs	2.35	1.25	Disagree
10	Most of ICTs equipment are not available for use	2.98	1.27	Disagree
Cumulative mean:		2.7		

Decisions Mean= 3.0

Table 1 reveals the mean responses of Lecturers' attitude towards ICT integration in teaching University students in Yobe State, Nigeria. The baseline for agreement on all the items presented to the respondents is

3.0. From the mean responses, it would be seen that the respondents agreed with all the items. The average mean of all the items is 2.95, which is below the cut-off point of 3.0. This indicates that Lecturers have negative attitude towards ICT integration for teaching university students.

Research Question Two: What is the level of lecturers' competency in the use of ICT in teaching University students in Yobe State, Nigeria?

Mean and Standard Deviation of Respondents on lecturers' competency in the use of ICT in teaching University students

S/N	Items	Mean	SD	Decision
1	I can connect the computer and its peripherals	2.43	1.25	Disagree
2	I can search for files on computer system	2.98	1.84	Disagree
3	I can locate and run an application programme e.g word processing.	2.01	1.89	Disagree
4	I can access information on CD/DVD	2.16	1.97	Disagree
5	I can organize electronic files into folders	2.14	1.02	Disagree
6	I can print to various networked printers	2.03	1.04	Disagree
7	I can open a new document in word	2.06	1.08	Disagree
8	I can use spreadsheet package very well	2.59	1.29	Disagree
9	I can sort and filter data	2.14	1.82	Disagree
10	I can create a basic presentation package	2.00	1.78	Disagree
11	I can set up a database and update them	2.96	1.89	Disagree
12	I can access an internet site via its website address	2.88	1.01	Disagree
13	I can download files from the internet	2.96	1.08	Disagree
14	I can attach files to outgoing e-mails	2.04	.97	Disagree
15	I can save a document in various file formats including PDF	2.98	1.09	Disagree
Cumulative mean:		2.42		

Decisions Mean= 3.0

Table 2 reveals the mean responses on lecturers' competency in the use of ICT in teaching University students in Yobe State, Nigeria. The baseline for agreement on all the items presented to the respondents is 3.0. From the mean responses, it would be seen that the respondents agreed with all the items. The average mean of all the items is 2.42, which is below the cut-off point of 3.0. This indicates that lecturers' competent in

the use of ICT for teaching university students.

Testing of Hypothesis

Ho₁ There is no significant difference between male and female lecturers' attitude towards integration of ICTs in teaching university students in Yobe State, Nigeria

T-test Results of Male and Female Lecturers' Attitude towards integration of ICTs

Test Variable	N	Df	Mean Rank	Sum of Ranks	T- calculated	p-value
Male	97	116	62.87	6098.5	91.5*	.021
Female	21		43.93	922.5		

S: Significant at 0.05 level

Table 3 showed the Male and Female lecturers' attitude towards integration of ICTs with mean ranking of 62.87 and 43.93 for Male and Female lecturers respectively.

The result showed that there is a statistically significant difference between the groups in favour of male lecturers ($t(116) = 91.5$, $p < 0.05$). Hence, the null hypothesis is rejected. This implies that the attitude of

male lecturers towards integration of ICT is higher than their female counterparts.

RESULT AND DISCUSSION

The finding of first research question showed that lecturers' attitude towards integration of ICTs in teaching University students indicated that lecturers have negative attitude towards ICT integration for teaching undergraduate students. This finding is not startling because lecturers don't visits ICT laboratories more often during their free time and are seen carrying laptop computers and other electronic devices. The finding is in disagreement with the finding of Albirini (2011) whose results indicated that science teachers had a positive attitude toward integration of ICT in teaching and learning process. Attitudes toward any objects play an extremely important role in influencing subsequent behaviours towards it. Positive attitude towards ICT is critical if ICT is to be effectively integrated into the school curriculum (Olumorin, 2008). In other words, teachers' attitudes, whether positive or negative, affect how they respond to and use ICT. Therefore, information is required about teachers' attitudes for plans about future investments in ICT. According to policy makers, ICT integration, takes place when teachers know how to incorporate and use ICT to teach in the classroom (Cuban, 2007). The assumption here is that once the teachers know how to use ICT to teach, the students will become engaged in using ICT as a tool to learn. In countries like USA, UK and Australia, the content of national curriculum statements provide clear evidence for this shift from the teaching of ICT alone to the infusion of ICT as a significant tool in the school curricular (Mugenda, 2009; Onasanya, Shehu & Oduwaiye, 2018).

The finding of second research question showed that lecturers are not competent in the use of ICTs for teaching undergraduate students. The finding disagrees with the earlier finding of Oduwale

(2007) who carried out a research to examine the utilization of internet facilities and its impact on the research output of agricultural scientists showed that about half (54%) of the agricultural researchers at the university use the yahoo search engine and that they spend an average one hour per day browsing the internet. The study also reveal that respondents use the internet to find research material such as journal and conference proceedings, followed by sending and receiving of electronic mails (E-mail). Oloruntegbe and Oduntuyi (2019) pointed out that in order to attain the goal of Universal Primary Education by the year 2015; we must ensure that information and communication technologies (ICTs) unlock the door of education systems. This indicates the growing demand and increasingly important place that ICTs could receive in education. On similar vein, Hanushek and Woessmann (2015) opined that ICT is an existing and widely deployed technology that can be mobilized to step up the pace and scale of transformation in teaching and learning processes in higher education. ICT can be a crucial enabler in helping to achieve the SDGs through higher education, particularly in developing countries like Nigeria where closing the development gap requires substantial effort, innovation and investment (Yusuf, 2005; Oloruntegbe and Oduntuyi, 2019). Since ICTs provides greater opportunity for students and teachers to adjust learning and teaching to individual needs, society is forcing schools to give an appropriate response to this technical innovation (Ajayi, 2008; Oyebanji, 2013). ICT can better prepare students for the information age, and accelerate national developmental efforts (Albirini, 2011).

Finding of the first hypothesis showed that there was statistically significant difference between male and female lecturers attitude in favour of male lecturers. The finding agrees with Volman and Van-Eck (2001) who revealed that female teachers have low levels of computer use due to their limited technology access, skill, and

interest. The male teachers on the other hand used more ICT in their teaching and learning processes than their female colleagues. Mutuma (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). Productive instructional delivery enhances learners' creative and intellectual development through the use of ICT resources, using multimedia images, graphics, audio, text for high quality learning (Ezeoba, 2007). Teachers' attitudes, qualification and experience are factors associated with ICT use, both a positive attitude about ICT use and ICT skills, in combination, are accepted precursors for effective use of ICT (Migliorino & Maiden, 2008). Lecturers' use of ICT applications is influenced by their attitudes towards ICT (Tondeur, Valcke & Van, 2008; Oyebanji, 2013).

CONCLUSION

There are adequate numbers of Electrical/Electronic Lecturers in Yobe state but without sufficient use of ICTs tools such as computer for effective instructional planning, delivery and evaluation. This might have worsening instructional delivery to students and consequently lead to poor interest of lecturers in the use of ICTs. Nevertheless, based on the findings of this study, it was concluded that lectures in Yobe State have negative attitude towards ICTs integration for teaching undergraduate students. Lecturers in Yobe State are not competent in the use of ICT for teaching undergraduate students and Male lecturers have more positive than female lecturers towards integration of ICTs in teaching undergraduate students

Recommendations

The study recommends the following based on the findings of this study:

1. There is need for the Government, National University Commission (NUC) and other Education stakeholders to respond positively to provide enough ICT infrastructures in all University across the country so as to encourage lecturers to utilize them in their teaching.
2. There should be teacher training programme and skill development of teachers that will encourage them to have the requisite skill, competence and exposure to enable them to be more proficient in the utilization of ICTs in teaching/learning activities.
3. The government, NUC and university management should join hands together and ensure that computer laboratories are provided with adequate functional computers hardware and software

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