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INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) USAGE AS EFFECTIVE TOOL FOR TEACHING AND LEARNING DURING COVID-19 PANDEMIC IN TERTIARY INSTITUTIONS IN OYO STATE

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Abstract
This paper investigated ICT usage as a vital tool for effective teaching in tertiary institutions in Oyo State. Descriptive survey research design was adopted for the study. The population was made up all the ten public tertiary institutions in Oyo State. The population comprised of 2,832 lecturers in the four selected tertiary institutions. Simple random sampling technique was used to select 531 lecturers. Purposive sampling method was used to select four tertiary institutions. Four research questions were raised and one hypothesis formulated. Questionnaire was the instrument used to collect data for this study. Four types of questionnaires were administered respectively; Availability of ICT facilities (AICTF), Frequent Usage of ICT (FUICT), Teachers' Attitude towards ICT Usage (TAICTU) and Challenges of Using ICT (CUICT). The reliability of the instrument was ascertained by using Chronbach Alpha. The reliability co-efficient of 0.71, 0.75, 0.70 and 0.81 was obtained. Simple percentage was used to answer research questions and Pearson Product Moment Correlation was used to analyze the hypothesis. The findings revealed that ICT facilities were inadequate. It was recommended among others that: government, philanthropist and all education stakeholders should join hands to equip tertiary institutions of learning with ICT resources.

Keywords: ICT, Effective**,** Teaching, Learning**,** Tertiary institutions

Introduction

The purpose of teaching in education process cannot be overemphasized considering the fact that it is the teaching learning

process that helps individual to acquire relevant skills and knowledge which in turn make him educated and useful member of the society. Teaching is a process of bringing desirable change in the behaviour of learners. Teaching actually involves several processes, behavior and activities which do not submit to explanation by a single theory. In an educational context, teaching cannot be imagined without the learner, the teacher, and the content. Therefore, the task of the teacher at any level is to create an enabling environment in which desirable changes in behavior would be realized. Research findings have provided evidences as to the positive effect of ICT on teaching learning in the average classroom. ICT usage became a necessity when the whole world was quarantine due to Corona-Virus pandemic outbreak. The pandemic revealed to teachers and learners the lucrative side of ICT usage and online teaching learning activities. Liquor and Winkler (2020) opined that online teaching and learning are the innovative solutions to combat the challenges of teaching in pandemic. Many of the public schools were shot in Nigeria as a result of the pandemic in order to forestall the spread of Corona virus. However, few public higher institutions were able to switch the teaching pedagogy to e-learning as a means of making up for the loss of the traditional visual teaching practices. Teachers were made to prepare online contents and present on social media such as Zoom, Instagram, television and radio classes (Oketunbi, 2020).

The use of Internet and computers in recent times has extremely enhanced the effectiveness and efficiency of education at all strata both formal and non-formal systems. It is generally recognized that education system of Nigeria is in dire need of reforms. All levels of our educational system; primary, secondary and tertiary across the country are not adequately supported by Information and communication technology (ICT)-based systems. Where ICT exists, it is marred by numerous challenges ranging from inconsistency in electricity supply, lack of ICT Technicians and personnel, inadequate funding, inadequate infrastructures to computer literacy. Yet, there is conviction that ICT can play significant roles in education. ICT application and usage is needed to improve Nigeria educational system.

New instructional techniques that use ICTs provide modality of instruments which allows individualized learning on the part of students. In any institution where new technologies are available,

students have access to tools that adjust to their attention span and provide important and instant feedback for literacy enhancement which is not currently fully implemented in Nigerian schools system. ICT has the potential to enrich, motivate, and deepen skills; accelerate and engage students in learning; helps to relate school experiences to work practices; contributes to radical changes in school; provides opportunities for connection between the school and the world; strengthens teaching and helps to create economic viability for tomorrow's workers (Davis and Tearle, 1999; Lemke and Coughlin, 1998 as cited by Yusuf, 2005).When appropriately implemented, ICT can enhance independent individualized learning and student productivity, it can engage students in active learning, and can promote high-level thinking (Yelland, Neal and Dakich, 2008). It can also speed up education reform and economic development. Reviving the education sector through the adoption of ICT is indeed a feasible option for economic growth in Nigeria. With the world moving rapidly into electronic environment, ICT is becoming more and more essential in education. It has been recommended that ICT can be enhanced by developing the type of citizens and graduates necessary in an information society; improving the quality of teaching and learning and enhancing educational outcomes (McCormick and Scrimshaw, 2001; Wagner, 2002).

ICT is a various set of technological resources and tools used to store, create, disseminate, communicate and manage information. These technologies include the Internet, computers, telephony and broadcasting technologies (television and radio) Tinio, 2009). According to Osakwe (2021) ICT is an electronic device for processing and managing information with the use of hard and soft wares to convert, manipulate, transmit, store, manage, protect, control and retrieve information for improvement and productivity of personal and organizational activities. These include: electronic mail, Internet access, CD-ROMS, telephone systems, library services, online databases and fax machines.

Reddi (2012) on the other hand, grouped ICTs used in education into two categories namely: asynchronous and synchronous media. Asynchronous media permit the participants in the learning process to be at different places and at different times, examples of asynchronous media include: email, audio and video tapes CDs,

computer files transfers, multimedia products, web based learning formats, offline and virtual conferences. Synchronous media entail all participants to be together at the same time even though in different location, examples of synchronous are broadcast radio and television, audio graphics, audio conferencing as in a telephone conference, teleconferencing, computer conferencing such as internet telephony and chat. There are problems that militate against the use of ICT in our tertiary institutions in Nigeria. These factors among others include inadequate teaching experience with ICT, high cost of internet data, shortage of on-site support for teachers using ICT, fear of being made redundant inability to supervise students when using computers etc. Other factors include computer illiteracy and epileptic electricity supply, internet and electronic security and need for continuous training of staff (Olofin and Aniede, 2016).

Statement of the problem

The massive closure of schools as a result of Corona-Virus was a critical global incidence which has made educationist to rethink on how effective teaching could be mediate by ICT. The Corona-Virus pandemic forced most teachers to assume virtual teaching where they had to use ICT sometimes for the first time to facilitate students' learning. School system around the globe are making effort to enhance and making education more effective with ICT. Research findings have provided evidences that ICT provide productive teaching and learning process, in order to increase people's intellectual and creative resources in today's information society. ICT aids teaching learning process in the classroom. The use of Internet and computers in recent times has extremely enhanced the effectiveness and efficiency of education at all strata both formal and non-formal systems. Despite this, there are evidences to suggest that most schools are either too slow or totally unwilling to make use of ICT in their teaching learning process (Ngugi and Rose-Innes, 2007). Despite the numerous advantages inherent in the use of ICT, it seems its usage has not met the needs and wide spread acceptance in Nigeria. Higher Institutions in Nigerian are facing a lot challenges on the adoption of ICT like other renowned institutions in the world. For students in higher institutions of learning to fit into the new social and economic realities. It is essential for institutions of learning to develop a culture that will replace a high value on education

through an ICT based delivery system. Thus, this paper sought to examine the usage of ICT in tertiary institutions in Oyo State.

Review of related literature

There is no doubt that ICT provide productive teaching and learning process, in order to increase people's creative and intellectual resources in today's information society. ICT gives exceptional opportunities to students to develop capacities for high quality learning and to increase their ability to innovate. Many experts in education agreed that when ICT is properly used, it holds great promise in improving teaching and learning process (Agabi and Uche, 2008).

Research findings revealed that ICT in teaching aids teaching learning process. Rajnish (2016) in his report submitted that technology can help to facilitate the teaching and learning processes. In the work of Almusalam (2001) and Albirini (2006) on Factors related to the use of computer technology for professional task by business and administration teachers at Saudi technical colleges and teachers' attitude towards ICT respectively concluded that teachers' attitudes is a major predictors of the use of ICT in instructional settings. Hew and Brush (2007) in their study found that lack of specific technological skills is a common reason teachers give for not using technology. Thus, teachers' knowledge and skills are important factors in the use of ICT for teaching learning processes. Fakeye (2010) reported that most secondary schools in Ibadan did not have computers, hence, are not connected to internet. He added that those schools with computers are not using it for teaching. OECD (2016) submitted that although technologies are common in our daily lives, majority of teachers in many countries do not frequently use ICT in their practice. Kopcha (2012) found that the more positively teachers saw technology use; the more likely they were to integrate it in their teaching leaning processes. Huges (2005) worked on the role of teacher knowledge and learning experience in forming technology-integrated pedagogy reported that teachers' personal experiences with technology as well as previous instruction with technology are important factors in determining technology usage. Gilakjani (2013) in research on factors contributing to teachers' use of computer technology in the classroom submitted that computer self-efficacy or teachers' judgment related to their own proficiency in computers and this plays an important role in their usage.

Objectives of the Study

The purpose of this paper is to examine the usage of ICT in teaching learning process in tertiary institutions in Oyo State. Specifically, the study was design to:

- Access the availability of ICT facilities in tertiary institutions in Oyo State during Covid-19 pandemic.
- Investigate the frequent use of ICT facilities in tertiary institutions in Oyo State during Covid-19 pandemic.
- Access the attitude of lecturers to the use of ICT facilities in tertiary institutions in Oyo State during Covid-19 pandemic.
- Access the challenges of using the ICT facilities in tertiary institutions in Oyo State during Covid-19 pandemic.

Research Questions

1. Are ICT facilities adequately available in tertiary institutions in Oyo State during Covid-19 pandemic?
2. What is the frequency of ICT usage by lecturers in the classroom in tertiary institutions in Oyo State during Covid-19 pandemic?
3. What is the attitude of teachers towards the use of ICT in teaching learning process in tertiary institutions in Oyo State during Covid-19 pandemic?
4. What are the challenges to the use of ICT in teaching learning process in tertiary institutions in Oyo State during Covid-19 pandemic?

Research Hypothesis

H01: There is no significant relationship between teachers' attitude and ICT usage in tertiary institutions in Oyo State.

Methodology

The research design adopted for this study descriptive survey type. It was adopted because the design was judged to be the most realistic of other designs because it investigated phenomenon systematically, especially the qualities, facts of a given population, events and area of interests as it allows the researcher to obtained descriptive information. The population was made up all the ten public tertiary institutions in Oyo State. The population comprised of all 2,832

lecturers in four selected tertiary institutions. Simple random sampling technique was used to select 531 lecturers. Purposive sampling method was used to select four tertiary institutions, representing 40%., one Federal university, one Federal college of education, one state college of education and one state polytechnic.

Instrument

Questionnaires were the instrument used to collect data for this study. Four research instruments were administered respectively. Each of the questionnaires consists of two sections-A and B. Section A sought information on demographic data of the respondents while section B contained items on Availability of ICT facilities (AICTF), Frequent Usage of ICT (FUICT), Teachers' Attitude towards ICT Usage (TAICTU) and Challenges of Using ICT (CUICT).

Section B adopted 5-point Likert type scale for frequent use of ICT (Very Often, Often, Sometimes, Rarely and Never), and it has 14 items. Other questionnaire adopted 4- point Likert scaling type. Such as; Availability of ICT (AICF) which has 13 items, Teachers' attitude towards ICT usage (TAICTU) with 11 items and challenges of ICT (CUICT) with 10 items. The reliability of the instrument was ascertained by using Chronbach Alphas. The instruments were administered at the Igbo- Ora College of Agriculture Igbo-Ora and Federal school of Survey Oyo because they were not included in the sample. Their reliability co-efficient are 0.71 (AICTF), 0.75 (FUICT), 0.70 (TAICTU) and 0.81 (CUICT) respectively.

Data Analysis

In analyzing the data descriptive statistic like frequent count and percentage were used to answer research questions and inferential statistic such as Pearson's products Correlation Moment was also used to test the hypothesis at 0.05 level of significance.

Research Question 1: Are ICT facilities adequately available in tertiary institutions in Oyo State during Covid-19 pandemic?

Table 1: Analysis of availability of ICT facilities in tertiary institutions in Oyo State during Covid-19 pandemic.

S/N	ITEMS	SA%	A%	D%	SD%
1.	Computer desktop size	83(15.7)	89(16.8)	324(61.1)	35(6.4)
2.	Computer laptop size	21(4.0)	84(15.8)	408(76.8)	18(3.4)
3.	Overhead Projector	06(1.1)	16(3.0)	311(58.7)	198(37.2)
4.	Slide projector	06(1.1)	05(0.9)	463(87.3)	57(10.7)
5.	Teleconferencing facilities	14(2.6)	09(1.7)	342(64.4)	166(31.3)
6.	Internet facilities	113(21.3)	73(13.8)	247(46.5)	98(18.4)
7.	Video conferencing facilities	27(5.1)	48(9.1)	333(62.6)	123(23.2)
8.	Electronic Bullet Board	31(5.8)	24(4.5)	375(70.6)	101(19.0)
9.	Digital cameras	26(4.9)	32(6.0)	241(45.4)	232(43.7)
10.	Wide Area Network (WAN)	52(9.8)	27(5.1)	301(56.7)	151(28.4)
11.	Electronic – mail	122(23.0)	97(18.3)	163(30.6)	149(28.1)
12.	Chart room	18(3.3)	46(8.7)	275(51.8)	192(36.2)
13.	Interactive white (Board)	05(0.9)	07(1.7)	423(79.4)	96(18.0)

The result in table 1 revealed that 32.5% of the respondents agreed that computer desktop size were available in their institutions while 67.5% disagreed. The results also revealed that computer laptop was inadequate with 76.8% respondents disagreed while 19.8% agreed. The table also reveals that overhead projectors were not adequately supplied (95.9%) disagreed and 4.1% agreed. The table further revealed that slide projectors were inadequate, (95.7%) disagreed and 4.3% agreed. However, majority of the respondents affirmed that teleconferencing facilities were inadequate (98.0%) disagreed and 2.0% agreed. The results further revealed that internet facilities were inadequate (64.9%) disagreed and 35.1% agreed. The results also unveiled that video conferencing facilities were inadequate with (85.8%) disagreed and 14.2% agreed. It was also pointed out that electronic bullet boards were inadequate with (70.6%) disagreed and 10.6% agreed. The results showed that digital cameras were inadequate with (89.1%) disagreed and 10.9% agreed. It was further revealed that wide area network was not adequate with 85% disagreed and 14.9% agreed. Many respondents affirmed that electronic mail was not adequate with (58.7%) disagreed and 41.3% agreed. The table also

reveals that chart rooms was not adequate with 88.0% disagreed and 12.0% agreed. Again the table also reveals that interactive white board was not adequate with (97.8%) disagreed and 2.2% agreed.

Research Question 2: What is the frequency of ICT usage by lecturers in the classroom in tertiary institutions in Oyo State during Covid-19 pandemic?

Table 2: Analysis of ICT Usage by lecturers in the classroom in tertiary institutions in Oyo state during Covid-19 pandemic

S/N	ITEMS	Very Often%	Often%	Sometimes %	Rarely %	Never %
1.	Electronic bullet board	12(2.4)	14(2.6)	33(6.1)	362(68.2)	110(20.7)
2.	Graphics	05(0.9)	16(3.0)	82(15.4)	94(17.8)	334(62.9)
3.	Computers	21(4.0)	30(5.7)	105(19.8)	159(29.9)	216(40.6)
4.	Projectors	03(0.6)	11(2.1)	22(4.1)	140(26.4)	355(66.8)
5.	Drill and Practice	06(1.1)	13(2.5)	37(7.0)	223(42.0)	252(47.4)
6.	CD-ROM; DVD	04(0.7)	12(2.2)	31(5.8)	88(16.6)	396(74.7)
7.	Desktop	16(3.0)	20(3.8)	59(11.1)	128(24.1)	308(58.0)
8.	Electronic mail	19(3.6)	25(4.6)	110(20.7)	209(39.5)	168(31.6)
9.	Internet	0(0.0)	0(0.0)	101(19.0)	13(2.5)	417(78.5)
10.	Face book, Twitter, WattsApp	0(0.0)	35(6.6)	93(17.5)	109(20.5)	294(55.4)
11.	Interactive white Board	0(0.0)	0(0.0)	08(1.5)	37(7.0)	486(91.5)

Table 2 presents the analysis of teachers' usage of ICT in teaching learning processes. The results revealed that 5.0 % often use ICT, 6.2% of the respondents sometimes use electronic bullet board, 68.2% rarely used ICT while 20.7% never use it. Also, 3.9% of the respondents often use graphics, 15.4% of the respondents sometimes use graphics; 17.8% rarely used ICT while 62.9% never used it. The table also revealed that 9.7% of the respondents often used computer, 19.8% of the respondents sometimes used ICT while 29.9% and 40.6% rarely or never used ICT. Again, 3.6% of the respondents often use drills for

teaching, 7.0% sometimes used it, 42.0% and 47.4% rarely or never used ICT. The table further reveals that 2.7 % of the respondents often used projector, 4.1% of the respondents sometimes used projector while 93.2% rarely or never used ICT. More so, 2.9% of the respondents often used CD-ROM, DVD, 5.8% sometimes used CD-Rom; DVD, 5.8 % sometimes use it, 16.6% and 74.7% rarely or used never used them. The table also reveals that 6.8% of the respondents often use desktop, 11.1% sometimes use it, 82.1% rarely used or never used them. Furthermore, 8.2% of the respondents often use electronic mail 20.7% sometimes use it, 71.1% rarely used or never used them. The table result reveals that 6.6% of the respondents often use facebook, twitter and wattsApp; 17.5% sometimes used it. 76.9% rarely or never used them. Also, 1.5% of the respondents sometimes used interactive while board while 98.5% rarely used or never used them.

Research Question 3: What is the attitude of teachers towards the use of ICT in teaching learning process in tertiary institutions in Oyo State during Covid-19 pandemic?

Table 3: Analysis of Lecturers Attitude towards the usage of ICT in teaching learning in tertiary institutions in Oyo State during Covid-19 pandemic

S/N	ITEMS	SA%	A%	D%	SD%
1.	Computers save effort and time	336(63.2)	183(34.5)	12(2.3)	0(0.0)
2.	Computers would help me to organize my work	283(53.2)	244(46.0)	04(0.8)	0(0.0)
3.	Using computer makes subject matter more interesting	407(76.7)	119(22.4)	05(0.9)	0(0.0)
4.	Using computer is enjoyable	188(35.4)	325(61.2)	18(3.4)	0(0.0)
5.	Computers make me much more productive	207(39.0)	318(59.9)	06.(1.1)	0(0.0)
6.	Computer skills is worthwhile	256(48.2)	271(51.0)	04(0.8)	0(0.0)
7.	Computers have proved to be effective learning tools	241(45.4)	288(54.2)	02(0.4)	0(0.0)

8.	Computer aids the process of education	261(49.2)	267(50.2)	03(0.6)	0(0.0)
9.	I rather do things by hand than with a computer	05(0.9)	17(3.2)	492(92.7)	17(3.2)
10.	Computers enhances student learning	278(52.4)	253(47.6)	0(0.0)	0(0.0)
11.	Computers do not scare me at all	276(52.0	214(40.3)	36(6.8)	05(0.9)
12.	I use computer in teaching	15(2.8)	117(27.0)	279(52.6)	120(22.6)
13.	Computers are fast means of getting information	188(34.6)	337(63.5)	10(1.9)	0(0.0)
14.	I learn more about computers	183(34.6)	337(63.5)	10(1.9)	0(0.0)

Table 3 revealed that 97.7% of the respondents agreed that computers save efforts and time, 2.3% of the respondents disagreed. 99.2% of the respondents agreed that computers would helped them to organize their work, 0.8% disagreed. The result also revealed that 99.1% of the respondents agreed that computer makes subject matter interesting, 0.9% disagreed. Again, 96.6% of the respondents agreed that using computer is enjoyable, 3.4% of the respondents disagreed. Moreover, the result reveals that 98.1% of the respondents agreed that computers make them more productive, 1.1% of the respondents disagreed. The results further revealed that 99.2% of the respondents agreed that computers skills are worthwhile, 0.8% of the respondents disagreed. The result reveals that 99.6% of the respondents agreed that computers have proved to be an effective tool for learning, 0.4% disagreed. All the respondents agreed that computers enhance students learning. Again 95.9% the respondents disagreed that they do things by their hands rather than with computers, 4.1% of the respondents agreed. The result reveals that 99.4% of the respondents agreed that computer aids the process of education. Again, 92.3% of the respondents agreed that computers do not care then while 7.7% of the respondents disagreed. The result also reveals that 75.2% of the respondents have been using it in teaching. Also, 99.8% of the respondents agreed that computers are fast means of getting

information, 0.2% disagreed. Majority of the respondents agreed that they learn more about computer with 98.1% agreed and 1.9% disagreed.

Research Question 4: What are the challenges to the use of ICT in teaching learning process in tertiary institutions in Oyo State during Covid-19 pandemic?

Table 4: Analysis of Challenges to the usage of ICT in teaching learning process in tertiary institutions in Oyo State during Covid-19 pandemic

S/N	ITEMS	SA%	A%	D%	SD%
1.	Inadequate number of trained and skilled technicians	221(41.6)	248(46.7)	23(4.3)	39(7.3)
2.	Poor knowledge of ICT	182(34.3)	304(57.3)	45(8.4)	0(0.0)
3.	Inadequate numbers of computers and other ICT resources	143(27.0)	269(50.7)	102(19.1)	17(3.2)
4.	Inadequate ICT teachers	324(61.0)	206(38.9)	01(0.1)	0(0.0)
5.	Inadequate number of skilled technicians to repair damaged ICT gadgets	201(37.9)	315(59.3)	07(1.3)	08(1.5)
6.	shortage of ICT and other relevant software for classroom instruction	392(73.8)	139(26.2)	0(0.0)	0(0.0)
7.	Inadequate supply of electricity	219(41.2)	312(58.8)	0(0.0)	0(0.0)
8.	Computer education is not included in the pre-service training programme	314(59.1)	217(40.9)	0(0.0)	0(0.0)
9.	High cost of ICT gadget and installation	74(13.9)	457(86.1)	0(0.0)	0(0.0)
10.	Poor maintenance policy	233(43.9)	298(56.1)	0(0.0)	0(0.0)

From table 4, results indicated that the above listed challenges were various hindrances to the usage of ICT in higher institutions, 77.7% of the respondents agreed that there were inadequate

computers and other ICT resources, 22.3% of the respondents disagreed. 91.6% of the respondents agreed that poor knowledge of ICT was a hindrance to effective usage of ICT 8.4% disagreed. 8.4% of the respondents agreed that there were inadequate number of trained and skilled technicians, 11.6% of the respondents disagreed. 97.2% of the respondents agreed that there was inadequate number of skilled technicians to repair damaged ICT gadgets, 2.8% disagreed. All the respondents agreed that there were shortage of ICT and other relevant software for classroom instruction. All the respondents also agreed that there was poor maintenance policy. All the respondents agreed that cost of ICT gadget and installations were high and there was inadequate electricity supply.

Testing of Hypothesis

There is no significant relationship between teachers' attitude and ICT usage in teaching learning processes in tertiary institutions in Oyo State

Table 5: Pearson Product Moment Correlation Analysis of relationship between teachers' attitude and ICT usage in teaching learning processes in tertiary institutions in Oyo State

Variables	N	Mean	Standard Deviation	r	Sig.	Remark
Teacher attitude	527	71.9865	5.37365	0.43	0.00	Significant
ICT usage	527	65.0829	8.14333			

The result revealed that there was significant relationship between teacher attitude and ICT usage. The result implied that positive attitude of teacher will enhance their usage of ICT in teaching learning process. Hence the hypothesis was rejected.

Discussion

The result from table one shows that majority of these ICT facilities were inadequate in the sampled institutions. This is in line with Fakeye (2010) that majority of ICT facilities were inadequate in our institutions of learning.

Table 2 revealed that majority of sampled lecturers rarely or never used ICT in teaching learning processes. The study was in line with Hew and

Brush (2007) and Huges (2005) found that lack of specific technological skills was a common reason teachers give for not using technology. Thus, teachers' knowledge and skills were important factors in the use of ICT for teaching learning processes. Also OECD (2016) submitted that although technologies were common in our daily lives, majority of teachers in many countries do not frequently use ICT.

Result from table 3 revealed that majority of the lecturers have positive attitude to the use of ICT for teaching learning processes. The result is in support of Kopcha (2012) who submitted that the more positively teachers saw the usage of technology in teaching learning process, the more likely they are to integrate and promote it. Result from table 4 revealed the challenges encountered in the course of using ICT in teaching learning processes. The results indicated that all the respondents agreed that the listed challenges were the major barrier to the usage of ICT in higher institutions. The report is in agreement with Ologin and QAniede (2010) who also identified some of these challenges in their report. The result from table 5 indicates that a positive relationship between teacher attitudes and ICT usage will enhance their usage of ICT in teaching learning process. This work is in support of the work of Almusalam (2001) and Albirini (2006) who concluded that teacher' attitude is a major predictor of the use of ICT in instructional settings.

Conclusion

The importance of ICT in education to improve the quality of teaching and learning in our institutions of learning cannot be overemphasized. In order to achieve the educational objectives amidst dwindling economy and national insecurity, teacher's knowledge on how to use ICT in the teaching learning process has a significant impact. Therefore, for ICT to be integrated in regular classroom teaching, teachers must be trained on how to use and apply ICT on regular basis.

Recommendations

Based on the findings the following recommendations were made:

1. The government, philanthropist and all education stakeholders should join hands to equip our institutions of learning with ICT resources.

2. Nigerian government should take practical measures to develop and sustain a workable ICT policy for the nation's educational system. This will enhance effective use of ICT in teaching learning process for all levels of education.
3. Teachers should be well prepared with the new ICT tools because this will assist them to use it for their teaching.
4. Professional development must be provided for teachers in service on how to use ICT as tool to enhance teaching and learning process.
5. Local software companies should be encouraged to work together with teachers to produce software programmes suitable for different categories of learners.
6. The teachers should take the advantage of several ongoing in-service training on ICT by participating in them.
7. The government should look into how to train technicians that can repair damaged ICT resources.

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