

**ICT UTILIZATION IN MANAGING TERTIARY EDUCATION
FOR EMPOWERMENT IN THE PHASE OF COVID-19
PANDEMIC IN TARABA STATE.**

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ABSTRACT

This research examined ICT Utilization in managing tertiary education for empowerment in the phase of covid-19 pandemic in Taraba state. Specifically, the objectives of the study are to: find out the level of ICT utilization in managing Tertiary education, identify the knowledge and level of competency of lecturers in ICT utilization, find out the effects of ICT utilization and find out the challenges encountered by lecturers in managing Tertiary education using ICT during the Covid-19 pandemic in Taraba State. Four research questions guided the study. The research adopted the survey research design and questionnaire was used for the purpose of data collection. The sample for the study was made up of 100 lecturers of College of Education zing, Taraba State College of Agriculture Jalingo, Taraba state Polytechnic Suntai, and Taraba State University, Jalingo. The data collected in the study was analyzed using percentage. The study concluded that some lecturers are not competent in ICT and they cannot operate ICT devices. The study discovered that ICT utilization in managing Tertiary education in the phase of Covid-19 pandemic is of great importance and it has great potential to enhance student achievement and teacher learning, ICT help lecturers to become more knowledgeable in their discipline, ICT enable students to collect information and interact with resources, ICT increase student motivation and ICT facilitate creative and critical thinking. The challenges that lecturers face in the ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic include poor teachers' attitude towards the use of ICT, lecturers competence and confidence, limited access to ICT facilities, inadequate ICT Infrastructure, and lack of Technical Support. Recommendations were made.

Key word: ICT, Utilization, Tertiary Education, Empowerment, Covid-19 pandemic

INTRODUCTION

In recent times, there have been intense global campaigns for the introduction of Information and Communication Technology (ICT) in teaching, business and even worship due to the Covid-19 pandemic. It was on the basis of this that Abdulla Al-Hawaj & Twizell, (2008) observed that the utilization of ICT in the teaching and learning of most courses in tertiary institutions for empowerment is critical to make learners learn better and lecturers to teach well. It ensures transactional instructional communication

where the teacher (lecturer) manages the human resources, time and space to make sure that instructional conditions help in drawing student's attention to stimulation and recall stimulus thereby improving student's academic performance and empowering them in the phase of global Covid-19 pandemic.

The act of integrating and utilizing ICT into teaching for empowerment is a complex process and one may encounter a number of difficulties. There are several

factors that inhibit the utilization of ICT into classroom instruction. Some factors are school base, learner base and resource base while some are community base and teacher's personal issue. Researches identify these factors as non-manipulative and manipulative factors. Non-manipulative refers to the factors, such as age, teaching experience, computer experience. Manipulative factors are availability of ICT infrastructures, government policy and the availability of external support; attitude, phobia, interests, skill level in using computer etc.

The utilization of ICT for empowerment are indispensable tools in the transmission of knowledge and have been accepted as viable means of communication in the contemporary world in the phase of Covid-19. The utilization of ICT for empowerment facilities in this study are instructional equipment and services which make teaching and learning processes to be done electronically and provide access to a wide range of innovation, information and educational materials on the internet in order to bring the world into the classroom in the Covid-19 pandemic.

Teachers' qualification and the level of teacher's competence in the utilization of ICT for empowerment devices is very pivotal in the Covid-19 era. Effective utilization of ICT facility for instructional process reinforces the teacher's ability to cater for individual differences and fosters learners' involvement, participation and understanding, which help them in grounding their thoughts and feelings and in turns contribute to good academic performance in schools. In this current era, ICTs are recognized as means of quality assurance in curriculum management.

ICT stands to improve teaching and learning in tertiary institutions. Internet usage for teaching and learning can assist the teachers to discover new methods and simple process of teaching, while the students can construct their own understanding and be in complete control of their topics through the sharing of ideas and experiences worldwide by accessing diverse collections of information from books, magazines, newspapers, and many others.

As the Covid-19 pandemic spreads, there has been an increasing move towards teaching online as schools

shut. This has given birth to the utilization of ICT for empowerment in teaching and learning in tertiary institutions. There is lots of online training for lecturers for online delivery. Many lecturers that went through the conventional training in Nigeria were not adequately trained on online instruction delivery to their students through the use of ICT. But as the situation present itself, there are many different ways of delivering and transmitting instruction to students. It is important that a lecture should have a basic idea of the use of ICT in teaching in tertiary institutions (Guragain, 2016). Lecturers in tertiary institutions should practice making videos for their classes, practice having online hours to speak with their students, practice making a new curriculum that will teach their students what they need to know amidst the crisis the world is facing, and practice using apps and teaching their students how to use the technology they will need to continue getting an education amidst the Covid-19 pandemic. Hence the need for the assessment of ICT Utilization for managing tertiary education for empowerment in the phase of covid-19 pandemic in Taraba State.

Statement of the Problem

The current context under the threat of the pandemic as a result of Covid-19 is causing a series of transformations in the different spheres of social, political, labor, and economic life. Different governments have launched emergency policy initiatives based on the suspension of classes and the closure of educational centers to continue teaching activities from homes telemetrically through the utilization of ICT for empowerment to be able to stop the number of infections. The utilization of ICT for empowerment has become the order of the day. While utilization of ICT for empowerment has constantly been adopted and helped in the establishment of virtual universities in most western countries, only a few tertiary institutions in Nigeria completely carry out their academic activities through the utilization of ICT for empowerment in the phase of Covid-19 pandemic.

Also, most research in this area has focused on public Higher Education Institutions (HEIs) difficulties, problems and prospect of Information and Communication Technologies and issues relating to the availability of Information and Communication Technologies facilities. However, little is still known about the factors that shape the adoption and

utilization of ICT facilities for empowerment in tertiary institutions, its level of application, benefits, barriers, adoption and/or use by tertiary institutions in Nigeria. Also, this research has proven that most teachers in tertiary institutions in Nigeria and Taraba State in particular, lack the qualification and competence to teach using ICT. Conventional methods of teaching and assessments in these institutions are regularly practiced while utilization of ICT for empowerment is yet to be fully implemented (Singh and Hardaker, 2014). Although some tertiary institutions in Taraba State are trying to embrace ICT completely by committing huge resources in acquiring these facilities, they have failed to accomplish this task because of the rate of illiteracy and inadequate funding (Aboderin and Kumuyi, 2013) making its adoption and utilization rather low.

Furthermore, online teaching is what many schools and lecturers employed in lesson delivery to their students at home during the covid-19 pandemic. But, many lecturers in Nigeria complained of the rogue of teaching during Covid-19 pandemic. This is because they have not been adequately equipped for online teaching using ICT. It is very obvious to say that many lecturers in Nigeria have not undergone training on teaching using the internet and ICT. Many of them lack the methodology of transmitted knowledge through online or social media/ICT. This made the act of teaching and learning to be very cumbersome and burdensome of many lecturers in Nigeria. It is only few lecturers who cared about what their students were going through, that assigned material that mattered, and helped their students maintain some sense of normalcy while the rest of the world was falling apart due to the Covid-19 pandemic (Guragain, 2016). Teaching during Covid-19 pandemic is a new challenge for most educators because of the social distancing it has creating. This is what prompted the researcher to study the ICT Utilization for managing tertiary education for empowerment in the phase of covid-19 pandemic in Taraba State.

Aim and Objectives of the Study

The aim of the study is ICT Utilization for managing tertiary education for empowerment in the phase of covid-19 pandemic in Taraba State. Specifically, the objectives of the study are to:

1. Find out the level of ICT utilization in managing in Tertiary education in the phase of

Covid-19 pandemic in Taraba State.

2. Identify the knowledge and level of competency of lecturers in ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State.
3. Find out effects of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State.
4. Find out the challenges that lecturers face in the ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State.

Research Questions

The study will be guided by the following research questions

1. What is the level of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State?
2. What is the level of competency of lecturers in ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State?
3. What are the effects of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State?
4. What are the challenges that lecturers face in the ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State?

LITERATURE REVIEW

Concept of Information and Communication Technology (ICT)

The society has so far undergone three phases in its socio-economic development. The first phase was the agricultural revolution, the second was industrial revolution and the third phase is the current information technology revolution. According to Daniels (2002) ICTs have become within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy. However, there appears to be a misconception that ICTs generally refers to 'computers and computing related activities'. This is fortunately not the case, although computers and their application play a significant role in modern information management, other technologies and/or

systems also comprise of the phenomenon that is commonly regarded as ICTs. According to a United Nations report (1999) ICTs cover Internet service provision, telecommunications equipment and services, information technology equipment and services, media and broadcasting, libraries and documentation centres, commercial information providers, network-based information services, and other related information and communication activities.

According to UNESCO (2002) information and communication technology (ICT) may be regarded as the combination of 'Informatics technology' with other related technology, specifically communication technology. The various kinds of ICT products available and having relevance to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counseling, interactive voice response system, audiocassettes and CD ROMs etc. have been used in education for different purposes (Bhattacharya and Sharma, 2007).

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning, and research (Yusuf, 2005). A great deal of research has proven the benefits to the quality of education (Al-Ansari, 2006). ICTs have the potential to innovate, accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change (Yusuf, 2005). As Jhurree (2005) states, much has been said and reported about the impact of technology, especially computers, in education.

Initially computers were used to teach computer programming but the development of the microprocessor in the early 1970s saw the introduction of affordable microcomputers into schools at a rapid rate. Computers and applications of technology became more pervasive in society which led to a concern about the need for computing skills in everyday life. Hepp, Hinostriza, Laval and Rehbein (2004) claim in their paper "Technology in Schools: Education, ICT and the Knowledge Society" that ICTs have been utilized in education ever since their inception, but they have not always been massively present.

The 1990s was the decade of computer communications and information access, particularly with the popularity and accessibility of internet-based services such as electronic mail and the World Wide Web (www). At the same time the CD-ROM became the standard for distributing packaged software (replacing the floppy disk). As a result educators became more focused on the use of the technology to improve student learning as a rationale for investment. Any discussion about the use of computer systems in schools is built upon an understanding of the link between schools, learning and computer technology. When the potential use of computers in schools was first mooted, the predominant conception was that students would be 'taught' by computers (Mevarech & Light, 1992). In a sense it was considered that the computer would 'take over' the teacher's job in much the same way as a robot computer may take over a welder's job. Collis (1989) refers to this as "a rather grim image" where "a small child sits alone with a computer".

However, the use of information and communication technologies in the educative process has been divided into two broad categories: ICTs for Education and ICTs in Education. ICTs for education refers to the development of information and communications technology specifically for teaching/learning purposes, while the ICTs in education involves the adoption of general components of information and communication technologies in the teaching learning process.

Level of ICT Utilization in Tertiary Institutions in Nigeria in Covid 19 Pandemic

The importance and need for modern technologies in education cannot be over emphasized. When viewed curiously, it could be discerned that there is some level of ICT application in schools in Nigeria. The National Policy of Education (Federal Government of Nigeria, 2004) recognized the crucial role of ICTs into education in Nigeria. To actualize this goal, the National Policy on Education states that government will provide basic infrastructure and training at the schools. Currently, the intention of government is to provide necessary infrastructure and training for the full integration of ICT in the Nigerian tertiary institution system.

The road to the implementation of computer education in Nigeria tertiary institutions started in the

late 1980s. The plan was to establish pilot schools and diffuse computer education innovations first to the tertiary institutions, and then to secondary schools. Unfortunately, the project did not go beyond the distribution and installation of personal computer (Ogiegbaen and Iyamu, 2005). Ogiegbaen and Iyamu (2005) aver that the computer is not part of the classroom technology in more than 90% of Nigerian tertiary institutions. The implication of this is that the chalkboard and textbook continue to dominate classroom activities in most Nigerian tertiary institutions. The same low rating was scored by New Partnership for African Development (NEPAD) in its assessment of African students' experience with ICT and their proficiency.

Another laudable initiative is by Zinoc Computers, also a private consortium; Zinoc Computer is set to revolutionize ICT usage in education across the three levels of educational strata (From Primary to tertiary) in the country. First Bank and Zenith Bank have also brought in their financial Weight to ensure that Nigeria joins the rest of the developed Word in achieving a significant degree- of percapita usage of computer and the internet.

Digital Bridge Institute (DBI) has also made an appreciable contribution to the improvement of computer literacy among Nigerian academia. Perhaps realizing that efforts are being made by other organizations to provide computers and other accessories to Nigerian schools, without a corresponding initiative to develop the skills of recipients to use them, has embarked on a comprehensive programme to train and develop skills of staff in the education sectors in a train the trainer scheme, in a bid to fast track the computer skills acquisition efforts of Nigerians to meet the educational challenges of the 21st century. DBI under the adaptation scheme called ADAPT has divided the country along the 6 geopolitical zone. Trainees are drawn from tertiary institutions and their workshop are usually very intensive and comprehensive that takes the trainees through Microsoft word, Excel, PowerPoint and exposure to the internet. The hope is that upon conclusion, the trainees would become the trainers when back to their institutions.

The National Open University of Nigeria (NOUN) which was established in 2002 now operates 27 study centres across the country, and has the dream of not

only opening study centers in each of the 56 states, but also at local government areas in order to make computer based tertiary education available to all Nigerians. Each center is equipped with a laboratory/cyber cafe with a few dozen computer in a Lan Area Network (LAN) configuration.

Effects ICT Utilization in Tertiary Education in the Phase of Covid-19 Pandemic

Several studies from case studies to survey researches have been conducted about the importance of ICT and as why teachers use it. ICT can play various roles in learning and teaching processes. According to Bransford et al., (2000), several studies have reviewed the literature on ICT and learning and have concluded that it has great potential to enhance student achievement and teacher learning. Wong et al., (2006) point out that technology can play a crucial part in supporting face-to-face teaching and learning in the classroom. Many researchers and theorists assert that the use of computers can help students to become knowledgeable, reduce the amount of direct instruction given to them, and give teachers an opportunity to help those students with particular needs. According to Gillespie (2006), new technologies can be used to enable students to collect information and interact with resources, such as images and videos, and to encourage communication and collaboration. Osborne and Hennessy (2003) identify that new technologies may also help to increase student motivation, facilitate clearer thinking, and develop interpretation skills with data. BECTA (2003) indicated that the success of the integration of new technology into education varies from curriculum to curriculum, place to place, and class to class, depending on the ways in which it is applied. Here under are a few highlighted benefits of using ICT to facilitate teaching:-

Delivery of Educational Resources: ICT can be used to provide immediate up to date resources using one or more media to large numbers of educators and learners easily and relatively cheaply. Any changes made to resources are easily available to educators and students without incurring major additional distribution costs.

Access to Global Knowledge Base/Internet: Perhaps the clearest benefit to education from ICT according to World Bank report (2004) comes from ability to share knowledge, experiences with an

emerging networked global community. Students can actively search for their counter parts in other countries to develop joint research projects on a variety of topics e.g. environment or health issues. The same technology allows students and wider community access to both global and local cultural resources.

Facilitating Interaction with Resources: According to Bullock (2004) ICT provides educators with a wide range of very interesting opportunities for creating resources that allow learners high levels of interactivity. This can lead to creation of interesting and exciting interaction of learners with educational resources.

Simplify Teaching Job: Plomp et al., (2007) states that use of ICT such as videos, television and multimedia computer software that combine text, sound and colourful moving images can be used to provide challenging, authentic content that will engage students in the learning process. Moreover networked computers with internet connectivity can increase learner motivation as it combines the media richness and interactivity of other.

ICTs as Collaborative Media: Information and Communications Technology enables high-level educational collaborations among students, teachers and groups of people. Blurton (1999) explained that these collaborations can take place between individuals in widely dispersed geographical locations. It is also helpful in the development of collaborative learning, where students can work together on common tasks in remote locations (Bates, 2000b). Wang (2008) stressed that the learning environment must offer appropriate tools so that students can easily communicate and collaborate with others.

ICTs as Pedagogy Media: Digital technology allows more interactive pedagogy by supporting online learning communities (Lai, 2011). Conventional libraries are no longer merely places for storing printed materials, and accessing various digital libraries is now the new practice in tertiary institutes (Hefzallah, 2004). These new online collections contain printed works like textbooks, journals, illustrations, maps, photographs, 3D models, animations and audio files (Blurton, 1999). These technological developments and the rise of online

databanks are leading to an increase in learning outside the traditional classroom (Hefzallah, 2004). Students and teachers can use the Internet as an important informative tool for research, document searches and other academic work.

Barriers that Hinder Lecturer from using ICT in Teaching in Tertiary Institutions in Covid-19 Pandemic

The act of integrating ICT into teaching is a complex process and one that may encounter a number of difficulties. Schoepp (2015) defines barrier as any condition that makes it difficult to make progress or to achieve an objective. There are several factors that inhibit the use of ICT into classroom instruction. Some factors are school base (internal) while some are community base (external) and teacher's personal issue. Researches identify these factors as non-manipulative and manipulative factors. Non-manipulative refers to the factors, such as age, teaching experience, computer experience. Manipulative factors are availability of ICT infrastructures, government policy and the availability of external support; attitude, phobia, interests, skill level in using computer etc.

Lecturers' Attitude Towards the Use of ICT and Lecturers' ICT Knowledge and Skills: Attitude is a predisposition to respond favorably or unfavorably to an object, person, or event Ajzen (1988). To successfully initiate and implement ICT in teaching depends strongly on teachers' support and attitudes. Among the factors that influence successful integration of ICT into teaching is teacher's attitudes and beliefs towards technology (Hew, K.F & Brush, 2007) and (Keengwa, J & Onchwari, G, 2008). Attitude is an important concept in social judgments and behaviors and thus, is one of the most important concepts in decision making, Venkatesh et al., (2003). Moreover Selewyn (1999), insists that integration of ICT in teaching depends to a great extent, on teachers' attitude towards their use. Myers and Halpin (2002) assert that attitude of teachers towards ICT use is a major predictor of future classroom use.

Teacher Competence and Confidence: ICT competence is defined as being able to handle a wide range of varying technologies for various purposes. According to Prestride (2012) ICT aided teaching is the most appropriate skill required of a teacher, unfortunately, it is the least possessed by many. This

may be because it is barely been part of their training course.

Limited access to ICT facilities: Access to ICT infrastructure and resources in schools is a necessary condition to the integration of ICT in education. Inaccessibility or unavailability of ICT, a school level barrier, has been identified as a key obstacle that impedes teachers from using ICT in teaching. Shortage of resources includes different factors, such as lack of access to hardware and software, poor quality hardware and inappropriate software. Effective adoption and integration of ICT into teaching in schools depends mainly on the availability and accessibility of ICT resources such as hardware, software, etc. Obviously, if teachers cannot access ICT resources, then they will not use them.

Inadequate ICT Infrastructure: East African Countries suffer the inadequacy of technological infrastructure, such as hardware, software, limited internet access, poor bandwidth, sporadic electricity, geographical factors, such as country size, mountains, demographic factors, such as high population, increased density, and extreme poverty, HIV/AIDS, lack of teachers' participation in curriculum development and evaluation, lack of pre-service and in-service training, teachers' brain drain to the western countries, poor teachers' welfare and morale, lack of parent and community participation in schools, poor school vision, mission and leadership. Behrane (2012).

Lack of Technical Support: Without both good technical support in the classroom and whole-school resources, teachers cannot be expected to overcome the barriers preventing them from using ICT Lewis (2003). Pelgrum (2001) found that in the view of primary and secondary teachers, one of the top barriers to ICT use in education was lack of technical assistance. Technical problems were found to be a major barrier for teachers.

Factors Determining the Utilization of ICT in Tertiary Institutions in Covid-19 Pandemic

In order to ensure that ICTs is widely adopted and used in classrooms in tertiary institutions, the following practices should be taken into consideration. Successful implementation of ICT based teaching and learning depends largely on the positive interest of teachers, who eventually

determine how they exploit and implement ICT based teaching in the classroom.

Attitude towards ICT: Drent and Meelissen (2007) in their study have established that a positive ICT attitude has a direct positive influence on the innovative use of ICT by the teacher. Positive attitudes often encourage less technologically capable teachers to learn the skills necessary for the implementation of technology-based activities in the classroom. In their study Harrison and Rainer (1992) found that participants with negative attitudes towards ICT were less skilled in ICT use and were therefore less likely to accept and adapt to technology than those with positive attitudes.

Computer Self-efficacy: Research has been conducted on teacher's self-efficacy and reported to have greater effect on their use of ICT. Self-efficacy is defined as a belief in one's own abilities to perform an action or activity necessary to achieve a goal or task (Bandura, 1997). In real meaning, self-efficacy is the confidence that individual has in his/her ability to do the things that he/she strives to do. Thus teachers' confidence refers both to the teachers' perceived likelihood of success on using ICT for educational purposes and on how far the teacher perceives success as being under his or her control (Peralta & Costa, 2007). Teachers' computer self-efficacy is described as a judgment of their capability to use a computer (Compeau & Higgins, 1995).

Teacher' Working Experience: Gorder (2008) reported that teacher experience significantly correlated with the actual use of technology. Also, Baek, Jong & Kim (2008) claimed that experienced teachers are less ready to integrate ICT into their teaching. Similarly, in United States, the (U.S National Centre for Education Statistics, 2000) reported that teachers with less experience in teaching were more likely to integrate computers in their teaching than teachers with more experience in teaching.

Professional Development: Teachers' professional development is a key factor to successful integration of computers into classroom teaching. Several studies have revealed that whether beginner or experienced, ICT-related training programs develop teachers' competences in computer use (Bauer & Kenton, 2005; Franklin, 2007; Wozney et al., 2006) influences

teachers' attitudes towards computers (Hew and Brush, 2007; Keengwe and Onchwari, 2008) as well as assisting teachers reorganize the task of technology and how new technology tools are significant in student learning (Plair, 2008).

Accessibility: Access to ICT infrastructure and resources in schools is a necessary condition to the integration of ICT in education (Plomp et al., 2009). Effective adoption and integration of ICT into teaching in schools depends mainly on the availability and accessibility of ICT resources such as hardware, software, etc.

METHOD AND PROCEDURE

The research adopted the survey research design. This design according to Mailumo (1994) is more of representative sample of a small or large population which are studied in order to determine the character of the whole population which may be of interest to the researcher. This tallied with Akizuela (1998), who saw survey research as a type of research in which a group of people or items are studied by collecting and analyzing data from only few people or items, considered to be representative of the entire group. This study adopts a survey design in view of the largeness of the area under the study.

Population and Sample of the Study: The sample for the study was made up of 100 lecturers of College

of Education zing, Taraba State College of Agriculture Jalingo, Taraba state Polytechnic Suntai, and Taraba State University, Jalingo. The sample size was ideal because Awotunde and Ugodulunwa (2004) maintained that the larger the sample size, the better the representation in a survey study. Again, large sample sizes help reduce bias in selection. The sample will consist of equal male and female respondents.

Sampling Techniques: The study adopted the simple random sampling technique. The simple random sampling will be used to select 100 lecturers of College of Education zing, Taraba State College of Agriculture Jalingo, Taraba state Polytechnic Suntai, and Taraba State University, Jalingo. Later, they will be poured into a bowl. An 8 year old boy was asked to select at random 100 papers from the bowl without replacement. The selected names were noted. The use of simple random sampling will be ideal because it gives every respondent equal chance of being selected.

Instrument for Data Collection: Data for the study were obtained using a structured questionnaire. The instrument was tagged ICT Utilization in the Phase of Covid-19 Pandemic Questionnaire (ICTUCPQ). The questionnaire was designed by the researcher.

Method of Data Analysis: The percentage was used as the major statistical technique in analyzing data obtained.

RESULTS AND DISCUSSION

Results

Research Question One: What is the level of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State?

Table 1: The level of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic

S/N	ITEMS	Responses	SA	A	D	SD	Total
1.	There are ICT devices in my tertiary institution	No	75	6	5	14	100
		%	75	6	5	14	100
2.	I use ICT in my lecture delivery	No	70	8	7	15	100
		%	70	8	7	15	100
3.	My tertiary institution makes the utilization of ICT compulsory for all lecturers	No	80	10	5	5	100
		%	80	10	5	5	100
4.	My tertiary institution uses ICT in all its academic activities	No	70	10	15	5	100
		%	70	10	15	5	100
5.	All communications between students and lecturers are done using ICT	No	75	12	3	10	100
		%	75	12	3	10	100

From the table above shows the level of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic which include the fact that there are ICT devices in my tertiary institution, the use ICT in my lecture delivery, the tertiary institution makes the utilization of ICT compulsory for all lecturers, the tertiary institution uses ICT in all its academic activities and all communications between students and lecturers are done using ICT.

Research Question Two: What is the level of competency of lecturers in ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State?

Table 2: Level of competency of lecturers in ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic

S/N	ITEMS	Responses	SA	A	D	SD	Total
6.	Lecturers are not competent in ICT	No	80	5	10	5	100
		%	80	5	10	5	100
7.	Lecturers don't have the knowledge of ICT	No	65	10	10	15	100
		%	65	10	10	15	100
8.	Lecturers cannot operate ICT devices	No	70	15	6	9	100
		%	70	15	6	9	100
9.	Lecturers are not well informed with ICT equipments	No	75	10	5	10	100
		%	75	10	5	10	100
10.	Lecturers are not ICT complaints	No	60	12	13	15	100
		%	60	12	13	15	100

From the table above shows the level of competency of lecturers in ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic. It shows that lecturers are not competent in ICT, lecturers don't have the knowledge of ICT, lecturers cannot operate ICT devices, lecturers are not well informed with ICT equipments, and lecturers are not ICT complaints,.

Research Question Three: What are the effects of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State?

Table 3: Effects of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic

S/N	ITEMS	Responses	SA	A	D	SD	Total
11.	ICT has great potential to enhance student achievement and teacher learning	No	85	5	5	5	100
		%	85	5	5	5	100
12.	ICT help lecturers to become more knowledgeable in their discipline	No	60	15	10	15	100
		%	60	15	10	15	100
13.	ICT enable students to collect information and interact with resources	No	70	10	11	9	100
		%	70	10	11	9	100
14.	ICT increase student motivation	No	80	5	5	10	100
		%	80	5	5	10	100
15.	ICT facilitate creative and critical thinking	No	65	5	15	15	100
		%	65	5	15	15	100

From the table above shows the effects of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic, that ICT has great potential to enhance student achievement and teacher learning, ICT help lecturers to become more knowledgeable in their discipline, ICT enable students to collect information and interact with resources, ICT increase student motivation and ICT facilitate creative and critical thinking.

Research Question Four: What are the challenges that lecturers face in the ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic in Taraba State?

Table 4: Challenges that lecturers face in the ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic

S/N	ITEMS	Responses	SA	A	D	SD	Total
16.	Teachers' Attitude Towards the Use of ICT and Teachers' ICT Knowledge and Skills	No	60	15	10	15	100
		%	60	15	10	15	100
17.	Teacher Competence and Confidence	No	75	10	5	10	100
		%	75	10	5	10	100
18.	Limited access to ICT facilities	No	80	5	5	10	100
		%	70	15	6	9	100
19.	Inadequate ICT Infrastructure	No	75	12	10	3	100
		%	75	12	10	3	100
20.	Lack of Technical Support	No	60	15	14	11	100
		%	60	15	14	11	100

From the table above show the challenges that lecturers face in the ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic, which include poor teachers' attitude

towards the use of ICT and teachers' ICT knowledge and skills, teacher competence and confidence, limited access to ICT facilities, inadequate ICT Infrastructure, and lack of Technical Support.

Discussion

Analysis of research question one showed the level of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic which include the fact that there are ICT devices in my tertiary institution, the use ICT in my lecture delivery, the tertiary institution makes the utilization of ICT compulsory for all lecturers, the tertiary institution uses ICT in all its academic activities and all communications between students and lecturers are done using ICT. This finding is in agreement with Ogyeman (2001) who stated that Nigeria's education ministry is yet to design its ICT policy for education.

Analysis of research question two showed that the level of competency of lecturers in ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic include that lecturers are not competent in ICT, lecturers don't have the knowledge of ICT, lecturers cannot operate ICT devices, lecturers are not well informed with ICT equipments, and lecturers are not ICT complaints. This result concurs with the finding of Lau and Sim, (2008) who carried a study on for teachers' ICT competency. The respondents considered themselves to be excellent or good in use of word processing (71%), teaching courseware (63%), and presentation tools (50%). The study also found that teachers broadly agreed that use of ICT makes them more effective in their teaching (75%), more organized in their work (80%) and better able to meet the varying needs of their students (48%).

Analysis of research question three showed that effects of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic, that ICT has great potential to enhance student achievement and teacher learning, ICT help lecturers to become more knowledgeable in their discipline, ICT enable students to collect information and interact with resources, ICT increase student motivation and ICT facilitate creative and critical thinking. The findings of this study agreed with Gillespie (2006) who opined that new technologies can be used to enable students to collect information and interact with resources, such as images and videos, and to encourage communication and collaboration.

Analysis of research question four showed the challenges that lecturers face in the ICT utilization in managing in Tertiary education in the phase of Covid-

19 pandemic, which include poor teachers' attitude towards the use of ICT and teachers' ICT knowledge and skills, teacher competence and confidence, limited access to ICT facilities, inadequate ICT Infrastructure, and lack of Technical Support. This result is in consonance with the findings of Beggs (2000) who found that one of the top three barriers to teachers' use of ICT in teaching was the lack of training. Recent research in Turkey found that the main problem with implementing new ICT in education was the insufficient amount of in- service training for teachers (Özden, 2007), and Toprakci (2006) concluded that limited teacher training in ICT use in Turkish schools is an obstacle.

CONCLUSION

Results showed that:

1. There are ICT devices in my tertiary institution and lecturers use ICT in their lecture delivery.
2. The tertiary institution makes the utilization of ICT compulsory for all lecturers, they use ICT in all its academic activities and all communications between students and lecturers are done using ICT.
3. Lecturers are not competent in ICT, they don't have the knowledge of ICT, they cannot operate ICT devices, they are not well informed with ICT equipments, and they are not ICT complaints.
4. The effects of ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic include that ICT has great potential to enhance student achievement and teacher learning, ICT help lecturers to become more knowledgeable in their discipline, ICT enable students to collect information and interact with resources, ICT increase student motivation and ICT facilitate creative and critical thinking.
5. The challenges that lecturers face in the ICT utilization in managing in Tertiary education in the phase of Covid-19 pandemic include poor teachers' attitude towards the use of ICT, lecturers competence and confidence, limited access to ICT facilities, inadequate ICT Infrastructure, and lack of Technical Support.

RECOMMENDATIONS

Sequel to the findings from the study, the following are recommended:

1. Government should make available adequate finance for the procurement of ICT equipments tertiary institutions.
2. Lecturers should develop positive attitude toward the use of ICT in academic activities in tertiary institutions.
3. Government should employ the assistance of trained ICT personal in all tertiary institutions.
4. Tertiary institutions should be encouraged to perform their academic task on line.
5. Taraba State tertiary institutions administrators should be increase motivation and prompt payment of salaries.
6. There should be more funding for ICT facilities in all tertiary institutions in Nigeria.
7. Government should provide adequate infrastructure for the ICT to thrive in all tertiary institution.

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