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ASSESSMENT OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FACILITIES IN THE MANAGEMENT OF SECONDARY SCHOOLS IN NORTH-CENTRAL STATES OF NIGERIA

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Abstract

This paper examined the Assessment of Information and Communication Technology (ICT) Facilities in the Management of Secondary Schools in North- Central States of Nigeria. It also appraises the level of availability of ICT facilities in schools and the capacity of using ICT facilities for teaching and learning. The paper revealed that ICT facilities are lacking in schools and teachers and students are to a little extent exposed to the use of ICT. Moreover, the paper also revealed that perceived benefits of using ICT facilities in secondary schools in North-Central States of Nigeria. However, despite these perceived benefits, the paper revealed some of the Constraints of ICT Application in Secondary Schools in the Zone. It also proffers Strategies for Strengthening ICT usage in Secondary Schools in North-Central States of Nigeria. Conclusion were made and implication drawn

Keywords: Assessment, Information and Communication Technology (ICT), School Management, Secondary Schools, Nigerian North-Central Zone.

Introduction

Information and communication technologies (ICT) have become key tools and have had a revolution impact on how we see the world and how we live. Today the place of education and the world in general cannot be undermined. 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 education, e-government, e-medicine, e-commerce and e-banking among others. According to Bandele (2006), ICT is a revolution that involves the use of computers, internet and other telecommunication technology in every aspect of human endeavor. 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. The field of education has certainly been affected by the penetrating influence of ICT worldwide and in particular, developed countries; ICT has made a very profound and remarkable impact on the quality and quantity of teaching, learning and research in the educational organizations. It has the potentials to accelerate, enrich 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 learning to provide opportunities for connection between the school and the world. According to Aribisala (2006), ICT is increasingly playing an important role in educational organizations and in society's ability to produce access, adopt and apply information.

They are however being heralded as the tools for the post-industrial age and the foundations for a knowledge economy due to their ability to facilitate the transfer and acquisition of knowledge. Stressing the importance of the use of ICT in schools, Elujekwute (2019) states that through ICT, educational needs have been met; it changes the needs of education as well as the potential processes. Message can be communicated through the e-mail, telex or telephones particularly the mobile ones. The pervasiveness of ICT has brought about rapid teleological, social, political and economic transformation, which has eventuated in a network society organized around ICT (Asogwu, 2008). Asogwu further posits that ICT is an indispensable part of educational management as its application makes institutions more efficient and productive, thereby engendering a variety of tools to enhance and facilitate teachers pedagogical activities. For instance, e-learning is becoming one of the most common means of using ICT to provide education to students both on and off campus by means of teaching online offered via web-based systems.

Looking at the role of education in nation building and the Population explosion in the secondary schools in North-Central States of Nigeria these days, the use of ICT in the teaching and learning process becomes imperative. This is true because its adoption by the teachers will enhance effective teaching and learning. Such issues like good course organization, effective class management, content creation, self-assessment, self-study collaborative learning, task oriented activities, and effective communication between the actors of teaching and learning process and research activities will be enhanced by the use of ICT based technology. Teaching and learning have gone beyond the teacher standing in front of a group of students and disseminating information to them without the students' adequate participation (Ajayi, 2008). Ajayi further opines that with the aid of ICT, teachers can take students beyond traditional limits, ensure their adequate participation in teaching and learning process and create vital environments to experiment and explore. This new development is a strong indication that the era of teachers without ICT skills are gone. Any classroom teacher with adequate and professional skills in ICT utilization will definitely have his students perform better in classroom learning.

A cursory look at the secondary schools in North-Central States of Nigeria has shown that many teachers in the system still rely much on the traditional "chalk and talk" method of teaching rather than embracing the use of ICT. According to Okebukola (2007), computer is not part of classroom technology in over 90% of public schools in Nigeria, thus the chalkboard and textbooks continue to dominate classroom activities. This is an indication that the students are still lagging behind in the trend of changes in the world. This presupposes that there is the tendency for the teachers and students to be denied the opportunities which ICT offers in the teaching and learning activities. There is need to replace the traditional pedagogical practices that still underpin the educational system in Nigeria, hence the need for the application of ICT in Secondary Schools in North-Central States of Nigeria. The various ICT facilities used in the teaching and learning process in schools according to Ofodu (2007) include; radio, television, computers overhead projectors, optical fibers, fax machines, CD-Rom, Internet, electronic notice board, slides, digital multimedia, video VCD machine among others.

It appears some of the facilities are not sufficiently provided for teaching and learning process in the secondary schools in North-Central States of Nigeria. This perhaps account for why teachers are not making use of them in their teaching. According to Ajayi (2008), the use of these facilities, involves various method which include systematized feedback system computer-based operation/network, video conferencing and audio conferencing internet Worldwide, websites and computer assisted instruction. It must however be stressed that the effective use of the various method of the ICT in teaching and learning depends on the availability of these facilities and teachers' competence in using them. Observation has shown that there are no functional internet facilities in most of the secondary schools in North-Central States of Nigeria. This appears to hinder the extent of teachers' exposure to the use of ICT in teaching. Teachers as well as students appear not to be knowledgeable in the use of ICT because there appears not to be any official training for both the teachers and the students in the schools. It has also been observed that most secondary schools in North-Central states are affected with irregular power supply which appears to thrive in the schools. Moreover it seems the schools could not purchase computers for use because of inadequate funds. Besides, the non-inclusion of the ICT programmers' in teachers training curriculum seems to be another major challenge facing the adoption of ICT in secondary schools. Various studies have shown the multifaceted problems militating against the effective use of ICT in the teaching and learning process in schools these include: irregular power supply inadequate computer literate teachers, reluctance to change among others. The focus of this paper is on the assessment of information and communication technology (ICT) facilities on the management of secondary schools in North-Central States of Nigeria.

Concept of Information and Communication Technology (ICT)

ICT encompasses a range of new technologies and their application including all aspects of the use of computers, micro-electronic devices, and satellite and communication technology. Modern day technological devices are used in ICT to store and retrieve information needed by various facets of the society. According to UNESCO (2011), Information Communication Technology (ICT) is the range of technologies that are applied in the process of collecting, storing, editing, retrieving and transfer of information in various forms. Obanya (2005), defines ICT as a broad term that has to do with the harnessing process, the methods and the

product of electronic and communication related technologies (and other related sources in today's knowledge driven society), for enhancing the productivity, the spread and efficiency of a set of programmed activities geared towards the achievement of clearly determined goals. The various definitions considered imply that ICT involves the use of a wide range of technologies such as computers, mobile telephones, satellite, World Wide Web, among others in collection, storage, retrieval and transfer of information for human use. In the context of education, ICT involves the use of combination of technologies in generating information required for effective teaching and learning process. ICT is a broad term that has to do with the harnessing of process methods and product of electronic and communication related technologies for enhancing the productivity spread and efficiency of a set of programmed activities geared towards the achievement of clearly determined goals

According to Elujekwute (2019), ICT as the handling and processing of information (texts, images, graphs and instruction) for use, by means of electronic and communication devices such as computers, cameras, telephone. Ofodu (2007), also refer 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 definitions, ICT could therefore be defined as processing and sharing of information using all kinds of electronic device, an umbrella that includes all technologies for the manipulation and communication of information. In the classroom situation, communication process influences learner's behaviours through interaction. It is an integral component of school curriculum activities since some of the curricular activities, tasks, teachers and students undertake involve the use of communication skills both oral and written formation. For instance, in all science subjects, students record their practical experiments, observations, demonstrations in both formal and informal text or present their findings and discoveries in either oral or written reports. Therefore, to prepare students for the information age and competitiveness and communicate effectively in the 21st century, complete internet and intranet services should be made available 24 hours in all secondary schools in North-Central States of Nigeria.

ICT in education can be understood as the application of digital equipment to all aspects of teaching and learning, According to Njoku (2006), ICT in the context of education is seen as the combination of technologies for collecting, storing, processing, communicating and delivery of information related to teaching and learning processes. Njoku further identifies three categories of ICT as follows: Processed information (computer systems), disseminated information (telecommunication systems) and Represented information (New Media Consortium, 2007).

Management of Secondary Schools

Management is a comprehensive effort to direct, guide and integrates human striving which is focused towards some specific ends or aims. It involves planning activities which are aim at fulfillment of the goals of a particular organization. In educational organization, the goals are teaching and learning. Effective management will then refer to the extent to which both human and material resources in such an organization are effectively coordinated for the attainment of these goals of teaching and learning. However, it is those who actually coordinate the resources that can be referred to as educational managers, and what they do as management. Dare. (2006) defines management as the careful and systematic utilization of

human, material and financial resources for attainment of specific objectives of a given organization. Furthermore, Sanusi (2008) also defines Management as intelligent arrangement and use of scarce, materials and capital resources for the accomplishment of the objectives of any organized system. From the definition of Management highlighted above, it can be deduced that resources are very scarce and therefore, the limited ones available should be judiciously utilized and geared towards the attainment of organizational goals. Again, it could be said that in any educational organization, the major objective is to achieve educational goals. Information Communication Technology (ICT) and globalization have greatly affected the Nigerian educational system generally. No meaningful progress will be made in educational sector without adjusting to scientific innovations and discoveries. The National Policy on Education (2004) emphasizes that the philosophy of education is to be geared towards self realization of national unity, as well as towards social, cultural, economic, political, scientific and technological progress. But in the research conducted by Nworgu (2005), who discovered that education sector is trailing behind other sectors such as industrial, business, aviation and administration. This may be attributed to the fact that substantial numbers of our schools still lack ICT resource infrastructure while our teachers lack the necessary skills required for the application in our classrooms.

Information technology is an organized combination of people, hardware, communication networks and data resources that collects, transfers and disseminates information in an organization. Information dissemination is very important in schools because, it is one of the major means by which members work together. Information is any fact or set of specific decisions among alternative courses of action. The information potential of data is enhanced by refinements, which involves selection, processing, storing and reorganization of data into a useable form and transmission to the appropriate end users (Sanusi, 2008). Information Technology occupies an important position in schools. This is because it makes for smooth planning, directing, organizing, staffing and controlling within the educational organization. The ultimate aim of Information Communication Technology is therefore to develop a viable system to maximize the effective use of modem data approach to institutions management practices. It also aims at assisting management, and indeed operating personnel to produce timely and accurate information. It also answers the increasing needs of secondary schools as it allows the teachers to have access to all relevant organizational information which enables them to make quick decisions within a reasonable length of time.

Forms of Information Communication Technology (ICT) Facilities

ICT involves the use of combination of technologies in generating information. These technologies could be referred to as ICT facilities, some of which are explained as follows:

Computer

It is an electronic machine designed to process information. It performs complex tasks that can take human beings a life time to carry out some of the characteristics of computers include speed of computation and retrieval of information, accuracy of' computation and transfer of information, storage capability and automatic processing. According to Nwite (2007), the computer based information system has four phases of activity named input, processing, output and storage. In the input phase, data are captured and converted to a form that can be processed by a computer. The processing phase with manipulation and conversion of data

into an appropriate form of information and the output phase, necessary information are provided for use storage phase, processed data are stored in usable form.

Electronic Mail (e-mail)

This refers to the process of sending, storing and receiving message electronically through the computer system. The use of email was developed in the 1960's. E-mail is a faster, cheaper and safer form of sending mails across the globe. Onuma (2007), states that it enables the user to send electronic message or document through the computer system to a specific e-mail address. E-mail is faster as messages can be exchanged in few seconds or minutes unlike using postal mail which may take days, weeks or months. E-mail can be used to send audio, video and text messages. E-mail message usually contains a header that specifies the sender, recipient and subject, followed by a body that contains the text of the message. A person must have a mail box containing e-mail address before he/she can send or receive an E-mail message. Through e-mail, it is possible to communicate a message to a large number of people at the same time. This is done through a mail explorer program which forwards a copy of the message to each member on the list at the same time.

Internet

It is a large network of interconnected computers that make communication and cooperation easy. It is a collection of interconnected computer networks, linked by copper wires, fiber-optic cables and wireless connections among others. According to Olusanjo (2007), it is characterized by the use of Internet protocol, network connectivity and public interconnected network of computers scattered all over the world linked together by some links called protocols. Through the Internet, the world has been turned to a global village where information can easily be disseminated, people can easily be connected and business transactions can easily be made.

World Wide Web (www)

It is a global, interactive, graphical information system that is used over the Internet. It contains digitalized data stored in files called WEB PAGES, simply called web. WWW. is a collection of interconnecting documents and other resources linked by hyperlinks and Universal Resources Locator (URL). It can only be accessed in the internet and can be used to provide information on every facet of life, in the school system. Ajayi (2008), posits that it is used for online admission and registration of students, payment of school fees and checking of examination results. Various individuals, organizations and governments use this Internet technology with such descriptions as www.un.tlm.ng; www.ubad.edu.ng; www.teni.com, among others as their website addresses.

Electronic Notice Boards

These involve the use of communication software to allow personal computers to act as public address systems. Electronic notice boards are created to link people who have the same interest for the purpose of information dissemination from time to time.

Teleconferencing

This refers to a process whereby people conduct real-time discussion on the Internet. Here, each participant will type his or her contribution to any discussion topic in the internet and also read other people's contributions to the discussion. This is made possible with the

internet relay chat; each participant in the discussion group can enter and leave the discussion when he or she likes (Johnson, 2007).

Telephone

This is a communication device through which a conversation could be held with another person at an entirely different location from that of the initiator of the conversation. Talks are held with people far and near with the aid of telephones. GSM phones enable the users to send audio, video and text messages easily to one another within few seconds.

Close Circuit Te1evision

It is a television distribution system in which the sender and the receiver are physically linked by wire. It does not operate through the airwaves. It may be between a single camera and a receiver within the same room for image magnification. According to Jimoh (2007), it could also be a link between a studio' and several locations, It has the advantages of privacy multi-channel capacity and freedom of being set up by any one or organization channel capacity. It is used by law enforcement agencies for crime prevention and control. Commercial banks and other corporate organizations also use close circuit television to monitor people's activities in their premises for the purpose of crime prevention and control. It is also used in some tertiary institutions for teaching special elective courses

Cable Television

This is the dissemination of television programmers by wire into homes and institutions. A favorably situated high mast antenna captures signals of the television. In the alternative, a capable company can originate its own channel live or from tape of film. Ogunmilade (2008), states that Cable television facilitates people's access to high quality channels as fiber optics make it theoretically possible to transmit 1,000 channels per cable, and such channels can be encoded and made available on rented decoders. The broadcast of cable television is restricted to subscribers only.

Importance of ICT Application in Secondary School

The importance of ICT in secondary school cannot be overemphasized as it facilitates the development of education in various ways, some of which are discussed as follows:

Aids Effective Teaching and Learning

It assists the teachers to take students beyond classroom limits by creating virtual environments to experiment and explore. Effective instructional delivery by the teachers is guaranteed as ICT assists them with effective and efficient tools to take care of the individual differences of the students. Moreover, it provides teachers opportunities for cooperation with colleagues through networking and Internet services. This will facilitate cross fertilization of ideas and improve the teaching skills of the teachers. According to Al-Ansari (2006), with the Internet, it is possible to access learning materials anywhere in the world. On the other hand, the use of educational application software assists the students to work easily, make their writing easier and make them learn faster. ICT offers educational resources such as software packages and web pages, which present a fresh opportunity for teachers and students to maximize their efforts in acquisition of new skills.

Enrichment of Curriculum Contents

Curriculum contents are enriched as teachers and curriculum experts are able to get curricular materials from the Internet. These include information, messages, skills, strategies and relevant school practices not yet known by students and teachers and which cannot be found in recommended school textbooks. Such materials can easily he downloaded for the information and academic development of students. The contents of topics taught in the classroom can he improved through recent research findings in obtained through the Internet. School curriculum is also enriched through the satellite microwave, cable and broadcast television which give students access to courses that are not available in their schools. Barron (2008) posits that the Internet resources in education also aid both the personal and professional development of the teachers thereby making it easy for them to implement the school curriculum effectively.

It Enhances the Quality and Accessibility of Education

ICT increases the flexibility of delivery of education-so that learners can access knowledge anytime and from anywhere. It can influence the way students are taught and how they learn as now the processes are learner driven and not by teachers. This in turn would better prepare the learners for lifelong learning as well as to improve the quality of learning. In concert with geographical flexibility, technology-facilitated educational programs also remove many of the temporal constraints that face learners with special needs (Moore and Kearsley, 2006). Students are starting to appreciate the capability to undertake education anywhere anytime and anyplace. One of the most vital contributions of ICT in the field of education is- Easy Access to Learning. With the help of ICT students can now browse through e-books, examination papers, previous year papers can also have an easy access to resource persons, mentors, experts, researchers, professionals, and peers-all over the world. This flexibility has heightened the availability of just-in-time learning and provided learning opportunities for many more learners who previously were constrained by other commitments. According to Olorunsola (2007), wider availability of best practices and best course material in education, which can be shared by means of ICT, can foster better teaching. ICT also allows the academic institutions to reach disadvantaged groups and new international educational markets, as well as learning at anytime, teachers are also finding the capabilities of teaching at any time to be opportunistic and able to be used to advantage.

It Enhances Learning Environments

ICT present an entirely new learning environment for students, thus requiring a different skill set to be successful. Critical thinking, research and evaluation skills are growing in importance as students, have increasing volumes of information from a variety of resources to sort through (New Media Consortium, 2007). ICT is changing processes of teaching and learning by adding elements of vitality to learning environments including virtual environments for the purpose. ICT is a potentially powerful tool for offering educational opportunities. It is difficult and maybe even impossible to imagine future learning environments that are not supported, in one way or another, by Information and Communication Technologies (ICT).

It Enhances Learning Motivation

ICTs can enhance the quality of education in several ways, by increasing learner motivation and engagement, by facilitating the acquisition of basic skills, and by enhancing teacher and

learning process. ICTs are also transformational tools which, when used appropriately, can promote the shift to a learner centered environment. ICTs, especially computers and Internet technologies, enable new ways of teaching and learning rather than simply allow teachers and students to do what they have done before in a better way. ICT has an impact not only on what students should learn, but it also plays a major role on how the students should learn. Along with a shift of curricula from "content-centered to "competence-based", the mode of curricula delivery has now shifted from "teacher centered" forms of delivery to "student-centered" forms of delivery. Moore and Kearsley (2006) reports that ICT provides Motivation to Learn by using resource materials such as videos, television and multimedia computer software that combine text, sound, and colorful moving images which can be used to provide challenging and authentic content that will engage the students in the learning process. Interactive radio likewise makes use of sound effects, songs, dramatizations, comic skits, and other performance conventions to compel the students to listen and become more involved in the lessons being delivered. ICTs allow learners to explore and discover rather than merely listen and remember. The World Wide Web (www) also provides a virtual international gallery for students' work. ICT can engage and inspire students, and this has been cited as a factor influencing ready adaptors of ICT (Long, 2006).

It Enhances the Scholastic Performance

Based on the extensive usage of ICTs in education the need appeared to unravel the myth that surrounds the use of Information and Communication Technology (ICT) as an aid to teaching and learning, and the impact it has on students' academic performance. ICTs are said to help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality. However, the experience of introducing different ICTs in the classroom and other educational settings all over the world over the past several decades suggests that the full realization of the potential educational benefits of ICT. The direct link between ICT use and students' academic performance has been the focus of extensive literature during the last two decades. ICT helps students to their learning by improving the communication between them and the instructors (Simpson et al, 2008).

It Improves the Teaching Profession

The integration of ICT in teachers' training programmers will improve the teaching profession. In realization of the potentials of ICT for improvement of the teaching profession, the Teachers Registration Council of Nigeria (TRCN) dedicated the year 2006 to ICT skills acquisition, summits and campaigning aimed at preparing teachers in Nigeria to maximize the advantages of the professional development on the web. Teachers who are ICT compliant are uplifting the teaching profession as they inculcate ICT skills in their students.

It Aids Effective Management of the School System

The tasks of managing the school system involve activities such as planning, organizing, coordinating, supervision, provision of educational support services, budgeting among others. All these activities require large volume of information for decision- making. These information are easily provided by ICT. Many schools now make use of ICT facilities in registration of students, maintenance of staff and students' records, keeping of inventory list of supplies, drawing of architectural design keeping of financial records, payment of salaries,

among others. Otakhor (2006), states that this makes the management of the school system easier and effective as information are easily stored and retrieved for making good decisions.

It Aids Evaluation of Learners

Some of the evaluation functions of the teacher have been taken over by some computer programmers. Dare (2006) reports that these functions include generating and administering tests, grading and reporting, summarizing the results and providing feedback on results. The use of appropriate programmers and the scanner has now made it possible to scan, score and produce the results of multiple choice tests written by several students in a matter of minutes or hours, instead of several weeks of manual marking.

Constraints of ICT Application in Secondary Schools

In spite of the accompanying gains and the clarion call for the provision and utilization of ICT facilities in our secondary school system in North-Central States of Nigeria, there are still serious inhibiting factors encountered in the implementation of the policy at institutional and classroom level. Some of these problems arc discussed as follows:

Problem of Teaching Personnel

Trained teachers in computer science who are to teach students the practical aspects of the subject are grossly inadequate in schools in North-Central States of Nigerian. Elujekwute (2019), states that many teachers distance themselves from computer-related activities due to fears, ignorance, negative perceptions or inferiority complex. Many teachers who are trained in computer science do not have access to computers either because they cannot afford them or they feel it is not necessary. At the secondary schools, many teachers are not competent in using ICT facilities for instructional delivery as a result of lack of training or apathy to the use of such facilities. All these affect the acquisition of ICT skills by students at various levels of our educational system. If the teachers who are to impart the knowledge and skills of ICT to the students are not trained and motivated, the rate of ICT, illiteracy among the students will continue to increase.

Inadequate Funding

As a result of inadequate funding of education in Nigeria particularly in North- Central States Nigeria, ICT facilities are not readily available in secondary schools. Apart from that many schools do not have computers and even where they are available, they are grossly inadequate to serve all the students. The ratio of students per computer is very high and the level of Internet connectivity is equally low which explains the reason why many teachers and students in secondary schools do not have access to adequate internet facilities on campuses but have to patronize business centers outside their schools. The high cost and maintenance of ICT facilities coupled with shortage of funds to procure the facilities impede the acquisition of ICT skills by teachers and students in the North- Central States of Nigerian schools. The ugly situation which is traceable to poor funding is which rests directly on the shoulder of government. Nwosu (2007), opines that low level funding has resulted to low level provision of these facilities in schools as a result of inadequate budgetary allocation. ICT equipment or accessories, soft and hardware are costly. Investment in ICT educational services is also at a low level.

Poor Power Supply

The effective functioning of ICT facilities depend on stable supply of electricity, however, since there is usually epileptic supply of electricity in Nigeria, it often inhibits the usage of ICT as a result schools and business canters which operate Internet facilities in the country depend heavily on electric generators which makes the cost of maintaining such facilities exorbitant and consequently limiting people's access to them. The safety and longevity of computer hardware and other electronic gadgets being used to aid instructional delivery cannot be guaranteed in an atmosphere of unstable supply of electricity and since power supply across the country is usually epileptic, the life span of these electronic gadgets is usually short lived (Olorundare, 2006).

Low Level of Internet Connectivity

There is low level of Internet connectivity in Nigeria especially in North- Central States of Nigeria. We still utilize thin band-with, non-existing intra-regional connectivity and inefficient fixed lines inhibited by inter- exchange congestion. We depend on VSAT for our Internet connectivity, which has a much lower quantity and more expensive than land-based connection. Moreover, there are few Internet service providers in the country and they charge high fees that may not be easily affordable to many people.

High Level of Poverty

As a result of high level of poverty in Nigeria, the cost for ICT facilities is not affordable to many people. As many as people are willing to buy computer hardware and soft ware, their exorbitant prices coupled with the parlous state of the economy make them unable to buy them. Those who can afford them find the maintenance costly; Elujekwute (2019) reports that this is electric generators remain the alternative source of power in view of the epileptic supply because of electricity in the country.

Shortage of Basic Infrastructures

Basic infrastructure such as classrooms, furniture, books, laboratories and air conditioners required for effective functioning of ICT facilities are not adequate in Nigerian schools. Olusanjo (2007), reports that this inadequacy limits students' access to internet and other ICT facilities. There are instances where computers are donated to schools but could not be used due to lack of basic infrastructures for their operation. Some schools that strive to maintain ICT facilities amid inadequate infrastructures only end up closing shop not quite long as a result of breakdown of such facilities.

Low Level of Computer Literacy among Teachers

There has been consistent effort in many countries to promote an ICT teachers/students empowerment culture. The sole aim of such a venture is to extend and make available to all teachers and learners the rich the world's intellectual, cultural and scientific heritage. In Nigeria, a good number of science teachers secondary schools are far from being literate information and communications technology and, therefore, fail to enjoy maximally the benefits offered by this modern technology. As revealed studies by Akubuilo (2007), a high percentage of teachers in science subjects in Nigeria are computer illiterates. It is obvious that

such teachers will find it extremely difficult to deliver the appropriate education and training required by the information age of the 21st century for their students.

Dearth of Technical Support Staff:
The installation operation, maintenance and network administration of ICT facilities need to be handled by ICT technicians and personnel. There is shortage of ICT technicians and personnel in Nigeria. This does not make the country responsive enough to the ever growing challenges of ICT in the global arena.

Strategies for Strengthening ICT Usage in Secondary Schools
In view of the significant impact of ICT on educational development, the following strategies are suggested for strengthening its usage in secondary schools in North-Central States of Nigerian.

Training of Teaching Personnel
There should be mass training of teachers in ICT through institutions. Moreover, all employed teachers in public secondary schools at all levels should undertake mandatory training and retraining in ICT programmes in forms of seminars, conferences and workshops. This will make them ICT literate and they will be able to impact the knowledge and skills to the students. There is urgent need to review the curricular of various levels of education to reflect ICT application, communication and utilization skills.

Increased Funding of Education
Our governments should commit more funds to education so that ICT facilities will be made available in secondary schools. The budgetary allocation to education over the years is still less than 15 percent. This proportion is still far from the UNESCO (2011) recommendation of 26 percent. The federal government should strive to meet the UNESCO standard in its budgetary allocation to education in order to empower our schools in the provision of ICT facilities. State and local governments, voluntary agencies, corporate bodies philanthropists and private individuals should also be encouraged to increase their financial commitment to education so that more ICT facilities can be provided in schools.

Regular Supply of Electricity
Our governments should be more aggressive in the provision of uninterrupted electricity in the country. This will facilitate the mass usage of ICT facilities both within and outside the schools.

Poverty Alleviation
Governments at various levels should be more aggressive in pursuing policies and programmers' that can effectively alleviate poverty among Nigerians. Priority attention should be given to provision of mass employment, income re-distribution, and provision of infrastructures, good health services, and diversification of the economy among others. This will reduce the poverty level of the masses and many of them will be able to afford the cost of computer hardware and software and other ICT facilities.

Provision of More Basic Infrastructures in Schools

More basic infrastructures such as classroom, furniture, books, laboratories, air conditioners among others, which are required for effective functioning of ICT facilities, should be provided in schools through increased funding of education by the governments and other stakeholders.

Training of More Technical Support Staff:

Government should embark on mass training of ICT technicians, course developers and personnel who will handle the installation, operation, and maintenance network administration of ICT facilities. This will place the country in a better position to compete favorably in the ICT world. Government should make budgeting provisions that would facilitate the procurement of adequate ICT facilities in the targeted states. Teachers should regularly be exposed to the knowledge of ICT and they imitativeness that comes with it so they can judiciously utilize it for the benefits of the students. Students should evenly be acquired with the knowledge of ICT so they can effectively make use of it to augment their learning process thereby easing the work of the teachers.

Conclusion

We have argued and reported in this paper that Nigeria secondary schools, especially in North-Central States of Nigeria are lagging behind in the level of application of ICT in the teaching and learning process. The ICT facilities are lacking in schools as the capacity for using ICT by both teachers and students is very low despite the perceived benefit that thus innovative technology can give to schools. There are however, a lot of factors inhibiting the successful application of ICT in Secondary Schools in North- Central States of Nigeria. In order to fit into the new scientific order, it is necessary for Nigeria secondary schools and individuals alike to develop a society and culture that places a high value on information and communication technology.

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