

## **Access and Utalization of Internet for Teaching and Learning among Secondary Schools in Bauchi State Nigeria: A Study of Six (6) Selected Secondary Schools in Bauchi Metropolis**

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**Keyword:**

*Internet, Teaching, Learning, Secondary, schools.*

**Abstract**

*This study identifies access and the use of internet for teaching and learning among selected secondary schools in Bauchi State. Internet has become a useful tool for education. Access to information communication technology (ICT), the internet in particular, has provided people especially students with a foundation for meeting their information needs. Many private schools can boast of computer laboratories, but only few can pride themselves on Internet access. Another frustration is the capacity to use the Internet. Methodology adopted in this study is the survey design in which questionnaires was used for obtaining data. The target population of this study was Secondary School students in Bauchi State. Result showed that students have the capacity to use the internet which they learnt from friends and family members. However, the level of internet access in schools is poor despite some schools having computer laboratories. Students accessed the internet from their homes and cyber cafes since*

*they are denied access in their respective schools while most of the students use the internet for socialization and amusement. The research recommends that internet availability should be considered as one of the most important scientific tools in schools.*

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## **Introduction**

The field of secondary education has been affected by internet access, which has undoubtedly affected teaching, learning, and research (Yusuf, 2005). Education is a fundamental human process; a matter of values and action. The cluster of technologies called the “Internet” has the ability to complement, reinforce, and to enhance the educational process (Simon, 2008). It will take the focus of education from the institution to the student. The internet has come to befriend, dwell with, and live beyond, both, the teacher and the student. African wisdom says, "It takes an entire village to raise a child".

Information and Communication Technologies (ICTs) refer to all technologies used to communicate, create, manage, access, gather, and distribute information. These include computer hardware and software, the Internet, telephone, television, radio, and audio-visual equipments (UNESCO, 2009). The term Information and Communication Technology (ICT) is also defined as forms of technology that are used for communication purposes of transmitting, storing, creating, sharing or exchanging information {United Republic of Tanzania (URT), 2007}. It includes a vast technology range, from simple such as the radio and telephone to complex such as computer, network hardware and software as well as the associated equipments and services (URT, 2007).

It is evident that, if ICTs used appropriately to support teaching and learning in schools and colleges it can be an effective tool particularly in improving quality of content and pedagogy (Anderson, 2008). For example, many academic institutions are now using videos, interactive television, and computer programmes in the teaching and learning processes. The Internet has turned into a wide and resourceful source of information for learners and trainers around

the world (Makoye, 2003). One of the most important contributions of ICTs in education is- Easy Access to Learning. With the help of ICTs, students can now browse through e-books, sample examination and past papers. Students can also have an easy access to resource persons, mentors, experts, researchers, professionals, and peers-all over the world (Al- Amin, 2010).

Several studies throughout the world have indicated the importance of the availability of ICT infrastructures and resources in the integration of ICTs in instructions (Bingimlas 2009 and Ottesen, 2006). However, the availability of adequate ICT infrastructures and resources, while necessary, is not in itself a sufficient condition for effective use of ICT for learning in education (Brummelhuis & Kipper, 2008). However the high quality of such ICT resources might be within an institution, this may still not necessarily guarantee accessibility to ICT resources for both teachers and students (Balanskat *et al.*, 2006). On the other hand, poor organization of ICT resources, inaccessibility of internal school network outside the institution may limit teachers and students' from accessing and using ICTs. Also in some occasions, teachers have to book for the ICT classroom well in advance to allow him or her secure a slot in using the classroom due to limited resources (Afamasanga, 2009).

Studies in most developing countries, among other things as rightly expressed, show that lack of ICT infrastructures and or inadequacy of ICT resources are a major obstacle to ICT integration in education, making the student- computer ratio being very high.

### **Statement of the Research Problem**

The internet is a vast global network that links millions of computers ranging from the smallest handheld personal mobile digital assistants to the most powerful computer systems ever constructed. The power of the internet is that it allows a worldwide community comprising millions of people to communicate, access, and publish information. People are using the internet to gain access to libraries throughout the world, aid in research projects and cross-cultural studies, solve school assignments, and enhance foreign language skills, and simply exchange ideas and studies with their peers.

The internet has become a global cultural phenomenon; tens of millions of people have access to the system. It is of the same magnitude as television was

in its early years and is the most powerful current trend for societal change. According to Dowling (1995), “Participation in the internet collapses geography and time”. The cost is independent of distance and the information is accessed in real or virtual time with little delay. However, Internet is not self dependent but a network of itself. One needs computer or an enabled mobile phone to access the information and other multimedia resources through the internet. Therefore, because of the countless benefits from using the internet especially the educational value, schools now acquire computer systems with telecommunication tools to have access to the internet.

Researches such as Ukpebor (2010) and Afamasanga (2009) revealed that the level of internet access in Nigerian schools is very poor. They emphasized that majority of the schools studied do not have adequate internet or ICT facilities and infrastructure and while few who does, do not frequently allow students to have access to the technologies. Their study also indicated that Internet and ICT use by students at secondary schools is yet to be formerly recognized as a means of improving academic performances, thus informed the reason why one cannot find any of such things in Nigerian secondary school curriculum except in few states such as Lagos. Smith and Philips (2019) argued that in Nigeria, curriculum developers for secondary schools underestimate the importance of internet and ICT for learning at that level. In relation to this therefore, we can understand that what these researches are trying to emphasize is that in Nigeria, very few schools can pride themselves on the use of internet in the teaching and learning process. This means that secondary students are not taught information, computer and internet literacy skills in schools, while digital divide remains a succeeding factor in developing nations (Ukpebor, 2010).

However, many private and public secondary schools in Nigeria cannot hide or leave under any cover their claim of adequate supply of internet and ICT resources and infrastructure in their schools, as well as basing an appropriate access and utilization modes and modalities to ease very well their student’s access to such materials for teaching and learning processes. Many schools today brag their chest that they have boasted their learning processes through using internet and ICT materials and that their computer laboratories are adequately equipped with these materials to help their students in that regard. This claim is evident in most of the schools pliers that they use to advertise

admissions on which they pride themselves on internet availability and connectivity. In Bauchi state this trend is also exhibited. It is in this regard that when one examines the schools quarterly bulletin one can understand that the cost of access points and connections to the internet is a source of concern to secondary school students and private school owners respectively.

The quest of this research work is to fill the gap created by the two opposing opinions. The first opinion is one which expressed, through researches conducted {Ukpebor (2010) and Afamasanga (2009)}, that the level of internet access in Nigerian secondary schools is very poor and that majority of the schools did not have adequate internet or ICT facilities and infrastructure to help learning process and their students have very limited access to such materials. The second opinion is one which expresses the claim put by many public and private secondary schools of adequate supply of internet and ICT resources and infrastructure in their schools, as well as basing an appropriate access and utilization modes and modalities to ease very well their student's access to such materials for teaching and learning processes.

This is especially necessary because of the rapid advancement in information communication technology and a decline in the price of computers; information sources have become affordable both in print form and online (Wee, 1999). Doyle (1994) stressed that the individual of the 21<sup>st</sup> century must have the ability to access information, evaluate and use information from a variety of source. These sources include the computer and internet. As a result of this, the students can increasingly utilize the internet to do research on their own initiative, and satisfy their other forms of information needs (Smith and Philips, 1999).

### **Aim and Objectives of the Study**

Generally, the aim of this research work is to find out access and the use of internet for teaching and learning in Bauchi metropolis using two selected secondary schools. The specific objectives of the study are:

1. To find out if the students of the Secondary Schools in Bauchi have access to internet;
2. To examine the students level of exposure to the Internet;

3. To establish how the students acquire internet skills and knowledge of the Internet

### **Research Questions**

To achieve the objectives of this study, the following research questions were formulated:

1. Do the Students of the Secondary Schools in Bauchi have access to Internet?
2. What is the level of Students exposure to the Internet?
3. How do students acquire internet skills and Knowledge of the Internet?

## **LITERATURE REVIEW**

### **Introduction**

The internet is presently being used as a source of teaching and learning materials. Most private and some public secondary schools in Tanzania, Cameroun, Egypt, Sudan and some African countries have computer labs used for teaching and learning. However, in some of these countries very few computer labs are connected to the internet. Alternatively, teachers and students use their mobile phones to access Internet services for academic work. Aboderin et al, (2011) argue that the introduction of the computer into our classrooms will assist in solving educational problems and enhance students' achievement. In Turkey, for example, most secondary school students (87.5%) use the internet (TUIK, 2009), while 82% of these cannot bear the thought of daily life without access to the internet (Egitisim Career Institute, 2010). The internet, in particular, has provided people especially students with a foundation for meeting their information needs (Christopher & Gorreti, 2012). In Africa many private schools can boast of computer laboratories, but only few can pride themselves on Internet access. The internet has come to befriend, dwell with, and live beyond, both, the teacher and the student (ibid).

In Nigeria, even though majority of public and private secondary schools claimed that they have more than enough internet facilities to support teaching and learning processes, researches conducted points out to unavailability of such resources and their limited access by the students in these schools (Lawal, 2011).

However, the use of the internet has been known to have a number of advantages as for example, Oral (2004) as cited in Kutkun, (2011), maintain that providing information and communication technologies for teaching-learning processes will have some advantages: students will play a more active role, discussions of courses will contain more detail, students will become more independent, communication between students and teachers will become level and direct, students will easily process new student-based education material, student skills will increase, and the hierarchical structure between teachers and students will be more flexible. It is also known that students will also be able to access information pertaining their courses and activities from different sources quickly and without difficulty, and will be able to evaluate these sources and synthesize them (Taşpınar and Gümüş, 2004).

Sahin *et al.* (2010) examined the use of internet resources by university students during their course projects study. They argued that the use of trustworthy internet resources is of vital importance for academic study, especially in higher class courses which require an academic review of literature. Internet use for educational purpose is found by Kim (2011) to be the habit of adolescent academic achievement. A similar study conducted by Ruth and Adedotun (2015) posited that the source and access to information can influence the academic performance of secondary school students.

Notwithstanding the importance attached to internet use for academic excellence, Olatokun, (2008) maintains that in Nigeria secondary school students use the internet for leisure rather than for educational purposes. According to Olatokun (2008), students in Nigeria use the internet primarily for communication, entertainment and leisure (reading and sending e-mails, online chatting, instant messaging, playing games and downloading music videos, and reading newspapers).

A similar work by Singh *et al.* (2013), brings to fore that students are more into the use of the internet but in reality they are using it mainly for non-academic purposes like mailing, gaming and social networking. This led to losses in their study schedules. This brings to the fore the controversy among empirical studies on the influence of internet use on the academic performance of students. On this ground therefore it is imperative for Nigerian government to emphasize the provision of internet resources and the teaching of its skills for learning in

secondary schools. The government must insist on this to be real rather than a mere claim.

In another development, the activities done by secondary school students on the internet have been scaled by scholars such as Akin-Adaeamola (2014) who examined the pattern of the usage of the internet by secondary school students in Nigeria and found out that the topmost activity done by secondary school students is chatting, followed by downloading, watching videos online, surfing the web, using the internet to study for school work, looking for other websites such as sports websites, reading news online, games websites and lastly online shopping. Statistically 40% of students spend most of their time chatting on social media daily while 14.4% of students use the internet for academic purpose daily (Akin-Adaeamola, 2014). This agrees with the findings of Bragdon and Dowler (2016) that there is a particular interest given that college administrators, faculty, parents, colleges' students and others support the advantage of using technology in higher education, but the reality is that this technology is often being used for non-academic purposes. It is acknowledged that these mentioned patterns of usage of internet by students can be geared towards academic accomplishments if they are properly handled especially when students are taught and oriented in that relation.

Despite great concerns over excessive internet use, Siraj *et al.* (2015) concluded that high internet usage brings better academic results as students get the opportunity to enter the information world. It is reported that addiction to internet is a good protector for student's social skills and academic achievement (Mami and Hatami-Zad, 2014). A relationship between internet addiction and academic performance showed that the average internet addiction level of male students, vocational school students and verbal field students were determined to be higher than more academically successful students (Turel and Toraman, 2015). This supports the idea that control use of internet can have positive influence on student's academic performance (Torres-Diaz *et al.*, 2016; Ellore *et al.*, 2014; Kakkar, 2014). Moreover, it is necessary that students are taught how to use computer facilities to search for valid information relating to their academic work (Mami and Hatami-Zad, 2014; Aitokhuehi *et al.*, 2014). As a result, it is necessary that government and stakeholders make available computer sets with internet facilities to all secondary schools for students and

teachers to use in the teaching and learning process to enhance academic performance (Aitokhuehi *et al.*, 2014).

But all this is not without challenges. Olatokun (2008) noted that the greatest obstacles to the full exploitation of the internet are inadequate access, inherent risks and problems such as pornography, scams among others. Though evidence showed that students have interest in internet resources than other sources, they have been challenged (Sahin *et al.*, 2010). Therefore, it is necessary that internet access is made available at all hours and instructors or lectures should refer students to educational websites for more relevant information (Osunnade, 2003). It has been found that internet access is low among senior high school students. Apart from access, it is disheartening to note that some students cannot even operate a computer despite the number of years spent in secondary school (Samuel, 2010).

According to Ruth and Adedotun (2015), information sources that are mostly available to Nigerian students are their teachers and lesson notes while library and internet facilities are the least available to them. Meanwhile, the internet can be used for knowledge acquisition by serving as an alternative to outdated books (Osunnade, 2003). However, access to a computer and internet connection contributes to students' academic performance (Yesilyurt *et al.* 2014). There is a significant difference in the academic performance of students with internet access and those without internet access. Taking into account the positive and negative impacts of the internet, Yesilyurt *et al.* (2014) opined that the positive influence outweighs the negative impacts.

The importance of ICT is quite evidence from the educational perspective. Though the chalkboard, textbooks, radio/television and film have been used for educational purpose over the years, none has quite impacted on the educational process like the computer (Aduwa-Ogiegbaen and Iyamu, 2005). Works by Shavinina (2001) states that the main purpose of ICT consists just in the development of human mental resources, which allow people to both successfully apply the existing knowledge and produce new knowledge. With the rapid growth of the internet, many educational institutions began to use internet as a new medium to assist the teaching, research and many activities. The push to provide internet technology in schools has been successful in recent years. According to Goldman *et al.* (1999), most schools have computer

laboratories and computers in their classrooms. Although, internet services are the latest technology in the educational system, there are still many factors that still impede internet access within and outside the school environment. Hardware and software pose problems as the technical support may not be there. Teachers may lack the time and the motivation to learn technology skills that may hamper the interest in teaching related skills to students like information literacy and retrieval skills. Placement of computers in schools for equitable access, technical support, effective goals for technology use, and new roles for teachers and sustained funding for technology are some of the factors impeding internet access in schools.

### **Theoretical Framework**

The 'Technological Determinism theory' provides the context that best explains the variables observable in the research.

Technological determinism is a [reductionist theory](#) that assumes that a society's [technology determines](#) the development of its social structure and cultural values. Technological determinism tries to understand how technology has had an impact on human action and thought. Changes in technology are the primary source for changes in society. The term is believed to have originated from [Thorstein Veblen](#) (1857–1929), an American sociologist and economist. The most radical technological determinist in the United States in the 20th century was most likely [Clarence Ayres](#) who was a follower of [Thorstein Veblen](#) and [John Dewey](#). [William Ogburn](#) was also known for his radical technological determinism.

The first major elaboration of a technological determinist view of socioeconomic development came from the German philosopher and economist [Karl Marx](#), who argued that changes in technology, and specifically [productive technology](#), are the primary influence on human social relations and organizational structure, and that social relations and cultural practices ultimately revolve around the technological and economic base of a given society. Marx's position has become embedded in contemporary society, where the idea that fast-changing technologies alter human lives is pervasive. Although many authors attribute a technologically determined view of human history to Marx's insights, not all Marxists are technological determinists, and

some authors question the extent to which Marx himself was a determinist. Furthermore, there are multiple forms of technological determinism.

The term is believed to have been coined by Thorstein Veblen (1857–1929), an American social scientist. Veblen's contemporary, popular historian Charles A. Beard provided this apt determinist image, "Technology marches in seven-league boots from one ruthless, revolutionary conquest to another, tearing down old factories and industries, flinging up new processes with terrifying rapidity." As to the meaning, it is described as the ascription to machines of "powers" that they do not have. Veblen, for instance, asserted that "the machine throws out anthropomorphic habits of thought." There is also the case of Karl Marx who expected that the construction of the railway in India would dissolve the caste system. The general idea, according to Robert Heilbroner, is that technology, by way of its machines, can cause historical change by changing the material conditions of human existence.

One of the most radical technological determinists was a man named Clarence Ayres, who was a follower of Veblen's theory in the 20th century. Ayres is best known for developing economic philosophies, but he also worked closely with Veblen who coined the technological determinism theory. He often times talked about the struggle between technology and ceremonial structure. One of his most notable theories involved the concept of "technological drag" where he explains technology as a self-generating process and institutions as ceremonial and this notion creates a technological over-determinism in the process.

Technological determinism is a reductionist theory that aims to provide a causative link between technology and a society's nature. It tries to explain as to whom or what could have a controlling power in human affairs. The theory questions the degree to which human thought or action is influenced by technological factors. The term 'technological determinism' was coined by Thorstein Veblen and this theory revolves around the proposition that technology in any given society defines its nature. Technology is viewed as the driving force of culture in a society and it determines its course of history.

Karl Marx believed that technological progress lead to newer ways of production in a society and this ultimately influenced the cultural, political and economic aspects of a society, thereby inevitably changing society itself. He explained this statement with the example of how a feudal society that used a

hand mill slowly changed into an industrial capitalist society with the introduction of the steam mill.

Technological determinism seeks to show technical developments, media, or technology as a whole, as the key mover in history and social change. It is a theory subscribed by "hyper globalists" who claim that as a consequence of the wide availability of technology, accelerated globalization is inevitable. Therefore, technological development and innovation become the principal motor of social, economic or political change. Strict adherents to technological determinism do not believe the influence of technology differs based on how much a technology is or can be used. Instead of considering technology as part of a larger spectrum of human activity, technological determinism sees technology as the basis for all human activity.

Technological determinism has been summarized as 'The belief in technology as a key governing force in society' Merritt Roe Smith (1940). 'The idea that technological development determines social change is that it changes the way people think and how they interact with others and can be described as 'a three-word logical proposition: "Technology determines history"' Rosalind Williams (1946). It is, 'the belief that social progress is driven by technological innovation, which in turn follows an "inevitable" course.' This 'idea of progress' or 'doctrine of progress' is centralised around the idea that social problems can be solved by technological advancement, and this is the way that society moves forward. Technological determinists believe that "“you can't stop progress', which means that we are unable to control technology". This suggests that we are somewhat powerless and society allows technology to drive social changes because, "Societies fail to be aware of the alternatives to the values embedded in it [technology]" Merritt Roe Smith (1940).

Technological determinism has been defined as an approach that identifies technology, or technological advances, as the central causal element in processes of social change. As a technology is stabilized, its design tends to dictate users' behaviors, consequently diminishing human agency. This stance however ignores the social and cultural circumstances in which the technology was developed. Sociologist Claude Fischer (1992) characterized the most prominent forms of technological determinism as "billiard ball" approaches, in

which technology is seen as an external force introduced into a social situation, producing a series of ricochet effects.

Rather than acknowledging that a society or culture interacts with and even shapes the technologies that are used, a technological determinist view holds that "the uses made of technology are largely determined by the structure of the technology itself, that is, that its functions follow from its form" Neil Postman (1992). However, this is not to be confused with Daniel Chandler's "inevitability thesis", which states that once a technology is introduced into a culture that what follows is the inevitable development of that technology.

## **RESEARCH METHODOLOGY**

### **Introduction**

This chapter will focus on, research method, population of the study, sample and sampling techniques, procedures for data collection, research instrument and data analysis. Black and Champion (2014), postulate that, methodology explicit the study design and constitutes the "how to do it" phase. Their assertion includes the population to be studied; the types of sampling plan to be followed, the size of the sample to be drawn and the type of instrument used.

### **Research Design**

This study will adopt the survey research design. This is to enable the researcher obtain detailed information needed to make this study worthwhile. The survey research method will be used because it is the most appropriate research method in measuring public opinion, attitudes and orientations, which are dominant among a large population at a particular period. Ohaja (2003, p.11) confirms that, survey is appropriate when studying the characteristics of a sample through questioning that enables the researcher to make generalizations concerning the population of interest. Consequently, this research design will enable the researcher to examine the demographic characteristics of the respondents, their attitudes, intentions and views as well as the psychographic questions concerning the access and use of internet for teaching. Survey method uses the questionnaire to elicit relevant information from the respondents. The survey to be adopted in this study will be quantitative.

## **Population of the Study**

One important goal of scientific research is to describe the nature of the population – a group or class of subject, concept or phenomena. Identifying characteristics which members of the universe have in common and which will identify each unit as being a member of a particular group, (Osuala, 2001). Accordingly, the population of this study would comprise of staff and students of the two selected secondary schools in Bauchi state. As of the time of this study, the population of staff in Harmony High school is 17 while the students are 1462; the staff in Government Day Secondary School Kafin Madaki is 26 while the students are 2831. The entire population therefore is 4,336.

## **Sampling Design**

### ***Sampling Technique***

Sampling is a process of selecting a given number or any portion of that population for the purpose of obtaining information for generalization about the large population Tejumaiye (2003:47). In selecting the sample for this study, Census will be conducted on the staff of the two selected schools because their size is manageable while random sampling technique will be adopted on the students to complete the sample size. According to this method, which belongs to the category of a probability sampling techniques, sample members will be selected on the basis of probability because each member stands a chance of being selected. The school register will serve as sampling frame for the study (Ojo 2007).

### ***Sample Size Procedure***

Sample size according to Otuka, Azare, and Bamidele (2004:64), is the number of observation used for calculating estimates of a given population. Yamane (1967:886) provides a simplified formula to calculate sample size with 95% confidence level and 0.05 precision. The formula is thus:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = Sample size, e = Level of significance

$N = \text{Population}, 1 = \text{Constant}$

In line with the above formula, after calculation, a total of 366 copies of questionnaires were distributed to the target sample in order to elicit response with regards to the study.

### **Method/Instrument of Data Collection**

The instrument for data collection used in this study was questionnaire. Ohaja, (2003) confirms that the questionnaire is an instrument used to collect data for survey, which meant primarily for literate respondents and can be administered by the researcher in person. The questionnaire comprises two distinct sections. Section A contains demographic characteristics of the respondents like age, gender, marital status, educational qualification etc while section B contains psychographic questions structured to provide answers to the research questions. The instrument contains close-ended Questions carefully formulated to answer the research questions of this study. The instrument will be designed to provide a frame of reference in order to improve response specificity as postulated by Clason & Dormody (2012, p.31). The researcher will distribute the questionnaires to the sample of the study and upon completion of questionnaire filling; the researcher will retrieve all copies for analysis.

### **Method of Data Analysis**

Data to be obtained from questionnaire was analysed quantitatively using simple frequency counts and percentages.

### **Discussion of Results**

In discussing the result, the research questions were used.

#### **Research Question One: Do the Students of the Secondary Schools in Bauchi have access to Internet?**

In response to this question, the study revealed that there is unavailability of computers in the secondary schools laboratories in Bauchi state, and where they are prevalent with labs the Computers are insufficient and inadequate to take care of the students, also majority of the students have very limited access to them.

This has gone in line with the studies of Ukpebor (2010) and Afamasanga (2009) which revealed that the level of internet access in Nigerian secondary schools is very poor. They emphasized that majority of the secondary schools do not have adequate internet or ICT facilities and infrastructure and while few who does, do not frequently allow students to have access to the technologies. Their study also indicated that Internet and ICT use by students at secondary schools is yet to be formerly recognized as a means of improving academic performances, thus informed the reason why one cannot find any of such things in Nigerian secondary school curriculum except in few states such as Lagos. The findings also proved beyond reasonable the claim of Smith and Philips (2019) who argued that in Nigeria, curriculum developers for secondary schools underestimate the importance of internet and ICT for learning at that level. In relation to this therefore, we can understand that what these researches are trying to emphasize is that in Nigeria, very few schools can pride themselves on the use of internet in the teaching and learning process. This means that secondary school students are hardly taught information, computer and internet literacy skills in schools, while digital divide remains a succeeding factor in developing nations (Ukpebor, 2010).

**Research Question Two: What is the level of Student's exposure to the Internet in secondary schools of Bauchi state?**

To address this question, the findings of the study that computer training in Secondary school of Bauchi state is never frequent and internet facilities are more or less absent in almost all the secondary schools in Bauchi.

This also confirms the argument of Lawal, (2011) who argued that In Nigeria, even though majority of public and private secondary schools claimed that they have more than enough computers and internet facilities to support teaching and learning processes, researches conducted points out to unavailability of such resources and their limited access by the students in these schools. He further lamented that exposure to such resources by secondary school students has become a yardstick of worry to all citizens (Lawal, 2011).

In line with this finding, Aboderin et al, (2011) argues that Alternatively, teachers and students use their mobile phones to access Internet services for academic work, primarily because the internet facilities are not adequately

provided by most secondary schools in Nigeria. In this regard also Akin-Adaeamola (2014) who examined the pattern of the usage of the internet by secondary school students in Nigeria found out that the topmost activity done by secondary school students is chatting, followed by downloading, watching videos online, surfing the web, using the internet to study for school work, looking for other websites such as sports websites, reading news online, games websites and lastly online shopping. Statistically 40% of students spend most of their time chatting on social media daily while 14.4% of students use the internet for academic purpose daily (Akin-Adaeamola, 2014).

This points out to the fact that if the students were given proper training in their respective schools their pattern of using internet would have been geared towards using it for academic purpose rather than socialization as manifested in their attitude of chatting and downloading videos for amusement.

### **Research Question Three: How do students acquire internet skills and Knowledge of the Internet?**

Here the findings revealed that majority of Students in Nigerian secondary schools are self taught on internet skills, and they more often accessed internet from private Cyber café and private computer institutes.

In line with this we can understand that this self taught was what informed the adverse attitude of the students for using internet for amusement rather than for academic purpose. This confirms the expression of Akin-Adaeamola (2014) who asserts that Statistically 40% of students spend most of their time chatting on social media daily while 14.4% of students use the internet for academic purpose daily (Akin-Adaeamola, 2014). This agrees with the findings of Bragdon and Dowler (2016) that there is a particular interest given that college administrators, faculty, parents, colleges' students and others support the advantage of using technology in higher education, but the reality is that this technology is often being used for non-academic purposes. It is acknowledged that these mentioned patterns of usage of internet by students can be geared towards academic accomplishments if they are properly handled especially when students are taught and oriented in that relation.

## **SUMMARY, CONCLUSION AND RECOMMENDATION**

### **Summary**

In relation to the research questions, the analyzed data fully showed that the availability and use of computers and internet is very poor. Many schools may boast of computer laboratory but only a few can pride themselves on the internet

access. This is not far from Goldman et al (1999), who claimed that most schools have not computer laboratories and many that have computers in the classrooms were constraints to have efficient internet services and latest technology. In the educational system, there are still many factors that still impede internet access within and outside the school environment. However, most of the schools who could boast of computers in their schools only had outdated computers from which a few were functioning. It is highly imperative that schools across the city should endeavor to acquire computers for practical and also internet access so as to empower the student on educational pursuit. More so, few schools with computers connected to the internet do not allow the students to have required access to the system when they are in need. This is against the assertion that students increasingly utilize the internet to do research on their own initiative, and satisfy their other forms of information needs (Smith and Philips, 1999).

The study reveals that many of the students have the capacity to use the internet, and these internet skills are majorly learnt from friends against the teachers who only encourage them on its use through assignments and other school works that requires the use of Internet. Formal skills are acquired through courses in institutions where the skills are taught, while informal skills can be acquired through friends, self-taught or personal arrangement with people who are experts in that particular field of study. However, the research has revealed that students learn these skills more from friends who should not be unexpected as studies on internet usage by Ojoko and Asaolu (2005) revealing that 67.9% of the students acquired skills through teaching by friends, 39.3% through self-teaching while 20.7% acquired their skills by reading of books.

### **Conclusion**

Some of the secondary schools surveyed in this work have computers in their laboratories but only a few are connected to the internet. Also, students have the capacity to use the internet, and these internet skills are majorly learnt from friends against the teachers who only encourage them on its use through assignments and other school works that requires the use of internet. The level of internet access in schools is very poor. This is because the majority of the schools studied do not have access to the internet and while few who does, do

not frequently allow students to have access to the technology. Students access the internet from their homes and cyber cafes since they are denied access in their respective schools. Notwithstanding, the major system used in this access is internet enabled mobile phones and laptops/personal computers.

The research has shown that students significantly make use of internet on educational activities. This may not be far fetch from Seif kashani (2003) assertion that the internet facilitates, classifies and enables the exchange of information, knowledge and news. The information can vary from local news to business or education developments to health, and therefore, help enhance the standard of living of its users or viewers.

The general implication of this study is that ministry of education and other regulating bodies should key into the information age where internet is considered as an inevitable tool in the upbringing of children in secondary schools. This should not be unconnected with the implementation of standards for all secondary schools in the acquisition of computers and internet accessibility for such schools to be accredited for operating.

### **Recommendations**

From the result of the findings in the study, the research recommends the following:

1. Schools across the country irrespective of being public or private should acquire more computers with the latest specifications and multimedia kit should be installed so that the users can use Internet telephony, videoconferencing, chatting and other useful services of the Internet.
2. Curriculum developers and other policy makers should include Internet/information retrieval skills in the school syllabus/curriculum.
3. Capacity building (Internet skills acquisition) on the part of the teachers should be given adequate attention. More efficient technical staff should be appointed and they should always be present in the Internet section for expert advice.
4. While schools are teaching the students on how the Internet can improve them in all phases of life, they should be aware of the standards and ethics of using the Internet.

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