

## **Correlational Studies Between Secondary School Teachers' Access to and Utilization of Internet Facilities for Instruction in Ilorin, Nigeria**

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### **ABSTRACT**

The use of different search engines enables university lecturers to accomplish the stated objectives of higher education institutions because they provide access to accurate and reliable information easily. The objectives of this study were to: identify Internet facilities available for teachers; determine whether teachers can access the Internet facilities; determine whether teachers utilize the Internet facilities; and investigate the relationship between teachers' access and utilization of Internet facilities to teach in Ilorin, an industrial and education center and the state capital and largest town in Kwara State. The population of the study comprised 251 respondents randomly selected from eighteen secondary schools in Ilorin, Nigeria and utilized a structured questionnaire. The research questions were analysed using mean scores, while the t-test statistic was used to test two hypotheses. The findings of the study revealed a significant positive relationship between teachers' access to and utilization of Internet facilities for instruction. This implies that teachers who have access to Internet facilities use Internet facilities for classroom instruction more than their counterparts. The study concluded that teachers effectively utilize accessible Internet facilities for instruction. It was recommended that the government and schools should make provision for Internet facilities in secondary schools to enhance the effectiveness of instruction.

**Keywords:** *Correlation; Access; Utilization; Internet Facilities; Instruction.*

### **INTRODUCTION**

Effective teaching requires a careful and selective application of learning theories and materials to meet the various conditions of a given learning situation. The teacher is central in the entire educational program to the extent that his training makes or mars the end product of his job as a teacher. Owolabi, Oyewole & Oke (2013) investigated the role of information and communication technologies (ICT) in Nigeria and asserted that teachers are crucial within the teaching and learning process. To place Nigerian teachers in the context of global competition and promote the quality of education, there is a need for appropriately planned and deployed use of computers by teachers for instructional purposes in schools. In Nigeria, teacher education has been bedeviled by challenges in regard to the modern-day use of technology to impart knowledge in the teaching and learning process.

Justina, Faben & Michael (2018) conducted a study on the adequacy and utilization of ICT resources for quality instructional delivery in business education in universities in South-West Nigeria. The study deduced that ICT has initiated a transition from analog to digital operations in all aspects of human endeavour making it possible for many activities to be carried out speedily, easily and accurately. The use of ICT may enhance professional growth speedily and lecturers who use the computer system to work may gain quicker access to study materials through the Internet. Similarly, the use of the Internet to access journals, periodicals, magazines, inaugural lectures, and conference papers may help lecturers to quickly grow on the job (Effiong & Effanga, 2018). Internet facilities allow for use of mechanisms to record information, for example, magnetic disc, tape, optical disc CD, DVD, flash memory drive and paper record. It also includes broadcasting streams such as radio, television, and technology for communication through voice and sound or image,

microphone, camera, loudspeaker, telephone or cellular phone. It involves a wide variety of computing hardware, PCs, server mainframe and network storage (Wima, & Lawler, 2014).

The enormous growth in Internet connectivity in conjunction with the development of other electronic communication technologies has resulted in changes in many spheres of society. The Internet has become a key element in what is seen as the globalization of society and the development of nation boundaries, that has no single owner and that is not regulated or controlled by any single national or international legal framework. Similarly, ICT in education encompasses all the contemporary digital tools such as computers and accessories, and the Internet that can be used in education to fulfill its goals (Abdulrahman & Soetan, 2017). ICT encourages students to improve their literacy and numeracy skills and helps to recognize their existing abilities. It also helps with both independent and collaborative learning experiences as learners identify areas where they need assistance and support. In the same vein, learners can complete their education from any location as long as they have access to the ICT resources (Amosa, Ogunlade, Ogunlade, & Obielodan, 2017). The attainment of the skills needed could be possible by embracing the use of information and communication technologies.

The World Wide Web, file transfer protocol (FTP), e-mail, telnet, Usenet, mailing list, Newsgroup, Yahoo, Google, Altavista, E-books, E-journals, Facebook, 2go and Twitter among others, can be used to assist and enhance teaching and research in the school. With facilities, such as search engines a teacher can obtain up-to-date information, know what is happening in his/her field of teaching somewhere around the globe, and share information with colleagues using the mailing list facility of the Internet.

ICT presents opportunities for access to a large quantity of information, the size of which goes beyond anyone's imagination, through the use of search engines like Google, Bing and Yahoo among others (Gavali, 2015). Lavanya and Santharooban (2018) reported that slow Internet connectivity, limited time, lack of awareness of online information resources, virus and other malware pop-ups, information overload, inaccessibility to important online resources, unreliable information on the Internet and lack of searching/browsing skills, were among the barriers to access and use of online resources. Search engines enable researchers to access information that might be restricted to the user due to geographical location or finances, access to more current information, provision of extensive links to additional resources to related content and help in locating information of relevance on a particular subject by using various search methods (Ogbole, 2017).

A teacher who is away from their desk, or away from school, can access their emails, access their data using cloud computing, or open a remote desktop session on their office PC using a secure Virtual Private Network (VPN) connection on the Internet. The application of ICTs in universities made it possible to work in distance learning environments and achieve closer collaboration between different university lecturers and even students, to share ideas, information about conferences and participate in lectures online from different universities and countries. These developments paved the way for a new teaching approach where there is an unparalleled ability to spread knowledge and disseminate information (Emmanuel & Ngozi, 2014). It has also been observed that ICT in education makes lifelong learning easier and contributes to individual development by enhancing digital skills and providing individuals with skills that they might need in the future, thereby increasing employability and productivity (Haelermans, 2017).

There are several institutions of learning that utilize ICT for teaching and learning in Ilorin, including the University of Ilorin, Kwara state University, Rheomics College, Effective international College, and Flora College among others. There has been tremendous improvement in the use of ICT. For example, the University of Ilorin utilize computer-based testing for students' examination and most lecturers have adopted Google Classroom for instructional purposes. Okorie (2019) noted that

there was a significant relationship among secondary school teachers' perceived ease of use, perceived usefulness, and perceived satisfaction on the utilization of electronic media for teaching basic technology in Ilorin. Habib et al., (2015) have also noted the usefulness of electronic media afforded by the Internet, in advancing digital communication among fellow students and lecturers. A study by Ameen, Adeniji, and Abdullahi (2019) established that while teachers and students in Ilorin utilized ICT tools for teaching and learning respectively, they were not skilled in utilizing ICT tools and recommended the organization of seminars and workshops for teachers on the benefits and how to incorporate ICT tools into teaching activities. They also noted that students should be encouraged to familiarize themselves with ICT tools to increase their level of competence for use.

According to COMSIT (2019), making ICT functional and user-friendly are still challenges for developing countries and input from executives in large technology companies to advise and interact with the ICT staff at universities in the developing countries would be useful. A study by Soetan, Ogunlade, Fakomogbon, & Bolaji (2014) showed that ICT tools were available in early childhood schools in the Ilorin metropolis and were being utilized by teachers. The authors recommended expending more effort on provisions for availability and utilization of ICT tools in Ilorin. It has also been noted that the percentages of computers and cellphone usage are high when compared to others in terms of availability of ICT tools in Ilorin (McKena, 2019). On the other hand, Olokoba, Abdullahi & Omosidi (2014) showed that many schools in Kwara State did not have enough ICT tools and teachers did not use the ICT tools in their instructional activities.

## **LITERATURE REVIEW**

The relationship or connection between teachers' access and their utilization of Internet facilities for instruction has been discussed in the literature. Bola & Ogunlade (2012) investigated the accessibility and utilization of Internet service by graduate students at the University of Lagos, Nigeria. The results established that students did not have as much access to Internet service as the staff and proximity to cybercafé and the possibility of obtaining valid information from Internet sources were their major motivating factors for surfing the Internet. The study also found that the respondents strongly agreed that the purposes for their surfing the Internet were to register for courses, enroll for exams, gather information for literature review and send and receive mails, amongst other purposes. Dede, Salzman & Loftin (2013) established that limited access to technology in secondary schools may contribute to a lack of technology usage in schools. Soetan, Ogunlade, Fakomogbon, & Bolaji (2014) recommended more provisions for the availability of ICT tools for teaching at the early childhood education level was needed.

Habib, Enite, & Aworo, (2015) in an empirical study of the accessibility and utilization of Internet service in Nigerian libraries, most of the participants asserted that the Internet was accessible to them while the participants strongly agreed that the main reasons for which staff used the Internet in Nigerian libraries were research purposes, current awareness services/update of knowledge and to develop personal competencies. Nwogu (2016) noted that Professor S. A. Onasanya of the Department of Educational Technology, University of Ilorin, Nigeria, who delivered a paper entitled, 'Educating for the next generation' stated that teaching in the 21st century had undergone a typical shift and that education must prepare pupils especially in Ilorin for success in a fast-changing and inter-connected world. Furthermore, Apuke & Iyendo (2017) noted that the Internet is a technology that has reshaped tertiary educational practice in terms of improving academic learning. It also revealed that lack of search skills, information overload, power outage, irrelevant information, difficulties in the navigation of the website, inaccessibility of some sites and unavailability/inaccessibility of the Internet services were some of the challenges faced by the staff in Nigeria libraries. Olokoba, Abdullahi & Omosidi (2014) earlier established that the unavailability of ICT facilities would continue to hinder teachers from using the resources.

Oso, & Adesua, (2017) assessed the availability and utilization of Internet facilities among undergraduate students at colleges of education in Nigeria and recorded low utilization of Internet facilities. Oberiri, & Timothy (2019) established in their study that the absence of electronic library resources for easy access to journals from the scientific database, and inefficient cybercafé and Internet facilities within their university settings were the main issues discouraging the utilization of the Internet within their institutions. However, it was stated that undergraduate students still strive to find ways through self-organization, resilience, and resourcefulness to make use of the Internet to facilitate their studies. Thus, there is a link between students' access to Internet facilities and their utilization of such technologies for learning. Ivwighreghweta & Igere (2014) in an earlier study investigated the impact of the Internet on academic performance in selected tertiary institutions in Nigeria and found that most of the students were computer literate and accessed relevant academic materials through the Internet. These studies established positive correlations between access and utilization of technology for learning in Kwara State. Shonola, Joy, Oyelere & Suhonen. (2016) in a study of two Universities in South-West Nigeria found that the students used their portable devices to exchange education-related messages and academic files with classmates, search the Internet and library databases for academic materials, practice online quizzes or tests and hold discussions with classmates among other activities.

### **STATEMENT OF THE PROBLEM**

Various challenges are facing the effective implementation of ICT policy, including dysfunctional telephone lines, and low levels of Internet connectivity. Emmanuel (2013) whose observations after a survey was carried out on 75 public schools in twelve states including Kwara State, Nigeria showed that none of the schools surveyed had a computer laboratory. The Ministry of Education and other government agencies still rely heavily on the paper-based system in their daily activities. The numerous benefits of using the Internet for instruction cannot be overemphasized, and so, there is a need to examine if these Internet facilities are easily accessible and utilized by secondary school teachers to improve the quality of their teaching activities.

Lack of adequate Internet bandwidth, an insufficient number of computers, expensive procurement for hardware and software in developing countries, lack of technical support, lack of suitable administrative support, lack of re-training on ICT facilities and lack of knowledge and skills for utilizing ICTs for research were identified as obstacles to the utilization of ICT facilities (Kunda, Chember & Mukupa, 2018). Poor telecommunication systems, an unreliable electrical supply, lack of Internet services providers in some parts of the country, and poor funding of the secondary school system are major problems militating against the use of Internet facilities.

Although studies such as that by Shehu, Urhefe & Promise (2015), examined the availability of Internet facilities among teachers and students for teaching and learning in either secondary schools or universities in Nigeria, none of these studies focused on the correlation between access and utilization of Internet facilities in Ilorin, Nigeria. To fill the identified gaps, this study, therefore, assessed the relationship between access to and utilization of Internet facilities for instruction among secondary school teachers in Ilorin, Nigeria.

### **Purpose of the Study**

The main purpose of this study was to assess the access to and utilization of Internet facilities among secondary school teachers in Ilorin, Nigeria. Specifically, the study focused on:

- I. Internet facilities available for secondary school teachers;
- II. whether secondary school teachers can access Internet facilities;
- III. whether teachers utilize the Internet facilities available in secondary schools in Ilorin;

- IV. what relationship exists between teachers' access and their utilization of Internet facilities to teach in secondary schools in Ilorin.

### **Research Questions**

To help carry out the research the following research questions were raised:

1. Are there Internet facilities in secondary schools in Ilorin?
2. Are secondary school teachers in Ilorin able to access Internet facilities in their schools?
3. Do secondary school teachers in Ilorin utilize the information from the Internet for instruction in their schools?
4. What relationship exists between teachers' access and their utilization of Internet facilities to teach in secondary schools in Ilorin?

### **Research Hypothesis**

The following hypothesis was tested in this study:

**Ho<sub>1</sub>:** there is no significant relationship between teacher's access to and utilization of Internet facilities.

### **Scope of the Study**

This study focused on the relationship between access to and utilization of Internet facilities for instruction among secondary school teachers in Ilorin, Nigeria. The Internet facilities discussed in this study include a computer and an e-library, which can be used to enhance learning and instruction in general. A descriptive research type was applied in the study to source, process and analyze the information collected using a structured questionnaire.

The location scope of this study was in Ilorin, Nigeria. Over two hundred and fifty teachers were sampled using purposive sampling based on the availability of teachers in both private and public schools at the time of visit. The sample was restricted to secondary school teachers. The study was conducted among the representative samples of the population using the questionnaire.

### **METHODOLOGY**

This study employed a descriptive survey method. It involved use of the questionnaire to collect necessary information on secondary school teachers' access to and utilization of Internet facilities. The population for the study consisted of all secondary school teachers in Ilorin, Nigeria and purposive sampling was used to randomly select the sample of secondary school teachers based on their availability. A structured questionnaire in two sections – Section A and Section B - was used to elicit information from the respondents. Section A comprised questions on the biodata of the respondents while Section B consisted of fifteen items on availability, access, and utilization of Internet facilities among secondary school teachers. The items consisted of a mix of Yes and No response modes, and Likert scale response modes - Strongly Agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed (SD).

The instrument was validated for face validity and content validity by the researcher's supervisor and three other lecturers in the Department of Educational Technology at the University of Ilorin. The various suggestions after the validation were used to modify the instrument. To ascertain the consistency of the instrument, the instrument was pilot tested on twenty-five teachers in Ogbomoso, Oyo State which does not consist of part of the study sample. The internal consistency of the instrument at 0.79 was tested using Cronbach alpha.

After obtaining a letter of introduction from the department, permission was sought from the school authorities before the instruments were administered by a research assistant from each of the schools in the study. The research assistants were recruited with the help of school heads of each secondary school. The questionnaires were distributed in print form at the respondents' schools within Ilorin, Nigeria for completion at a convenient time. Data collected through the questionnaire were subjected to analysis using descriptive and inferential statistics via SPSS Version 25. Descriptive statistics (percentage, count and mean) were used for analysis of the research questions, while inferential statistics and multiple regression analysis was used for hypothesis testing.

## **RESULTS**

### **Demographic Table**

The distribution of secondary school teachers involved in the study of access to and utilization of Internet facilities for instruction showed a difference in the distribution along gender lines. The results in Table 1 show that across all the schools, 119 (47.4%) of the respondents were males while 132 (52.6%) were females.

*Table 1: Percentage Distribution of Respondents by Gender*

<b>Gender</b>	<b>Frequency</b>	<b>%</b>
Male	119	47.4
Female	132	52.6
Total	251	100

### **Analysis of Research Questions**

#### *Research Question 1: Are there Internet facilities in secondary schools in Ilorin?*

The responses on the availability of Internet facilities in secondary schools are presented in Table 2 below. 31.5% of the respondents indicated that there was an e-library in their school and just under 30% agreed to the statement that teachers are allowed to use the e-library at any time. 59% of the respondents agreed that the school provides other means for teachers to access information online while just over 54% of respondents agreed that the government supplies computers and its accessories to the school for helping teachers enhance their instruction skills. However, most respondents agreed that there are not sufficient Internet centers in Nigerian secondary schools.

Overall, the responses suggest that schools have made limited provision for Internet facilities. 45.8% of respondents indicated that the government does not supply computers and its accessories to the school for helping teachers enhance their instruction skills, and the highest percentage of respondents indicated that the availability of an e-library and sufficient Internet centers in the school was low.

**Table 2:** Teachers' Response towards the Availability of Internet Facilities in Secondary Schools

S/N	Availability of Internet Facilities in Secondary Schools	Yes	No
1	There is an e-library in the school.	79 (31.5%)	172(68.5%)
2	Teachers are allowed to use the e-library at any time.	75 (29.9%)	176(70.1%)
3	The school provides other means for teachers to access information online.	148 (59.0%)	103(41.0%)
4	The government supplies computers and its accessories to the school for helping teachers enhance their instruction skills.	136 (54.2%)	115(45.8%)
5	There are sufficient Internet centers in schools.	70 (27.9%)	181(72.1%)

*Research Question 2: Are secondary school teachers in Ilorin able to access Internet facilities in their schools?*

The data in Table 3 shows the responses of the secondary school teachers in Ilorin on their access to Internet facilities. The findings revealed that 41.2% of the respondents agreed to the statement that teachers have been allowed teach with the Internet in their classroom practice while 58.8% disagreed with the statement. Also, it was revealed via the study that the majority of the respondents do not have access to Internet facilities thereby making the information very difficult to source from the Internet.

**Table 3:** Teachers' Response on the Access of Internet Facilities by Secondary School Teachers in Ilorin

	Access to Internet Facilities in Secondary Schools	Yes	No
1	Teachers have been allowed to teach with the Internet in their classroom practice.	103(41.2%)	148(58.8%)
2	Information is very difficult to source from the Internet, so I don't like using it.	84(33.5%)	167(66.5%)
3	I use the Internet to communicate socially than for instruction.	221(88.0%)	30(12.0%)
4	There is little access to the Internet in school.	211(84.0%)	40(16.0%)
5	The cost of accessing the Internet is too expensive.	220(87.7%)	31(12.3%)

Further, the data shows that most of the respondents (88.0%) use the Internet to communicate socially than for instruction, even as there is little access to the Internet at the school. Most of the respondents (87.7%) agreed that the cost of accessing the Internet is too expensive.

*Research Question 3: Do secondary school teachers in Ilorin utilize the information from the Internet for instruction in their schools?*

The data in Table 4 below shows that most of the respondents agreed that they can operate the computer very well and run various applications on the computer and they know the functions of all the buttons in the keyboard.

**Table 4: Teachers' Response towards the Utilization of Internet Facilities by Secondary School Teachers in Ilorin**

	<b>Utilization of Internet Facilities by Secondary School Teachers in Ilorin</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1	I can operate the computer very well.	89 (35%)	78 (31%)	57 (23%)	27 (11%)
2	I can run various applications on the computer.	172 (69%)	37 (15%)	27 (11%)	15 (6%)
3	I know the functions of all the buttons in the keyboard.	128 (51%)	8 (3%)	51 (20%)	54 (22%)
4	Teachers lack sufficient knowledge of computer input devices.	24 (9%)	35 (14%)	33 (13%)	159 (63%)
5	I use the Internet to prepare lesson plan.	36 (14%)	38 (15%)	79 (32%)	98 (39%)
	<b>Grand Mean</b>				

Further the data shows that most of the respondents indicated that teachers have sufficient knowledge of computer input devices but disagreed that teachers use the Internet to prepare their lesson plans.

**Hypothesis Testing**

*Ho<sub>1</sub>: there is no significant relationship between teacher's access to and utilization of Internet facilities.*

In other to test for the relationship between secondary school teachers' access to and their utilization of Internet facilities, the study multiple correlation analysis. The results are shown in tables 5, 6, and 7 below.

**Table 5: Model Summary on Utilization**

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.794 <sup>a</sup>	.630	.628	.15520

a. Predictors: (Constant), Utilization



The results in Table 5 for the adjusted R square (.63) indicates a good fit of the regression model and the independent variable of access accounts for .63% variance in the dependent variable (utilization).

The results on the analysis of variance (ANOVA) for the model are shown in Table 6 below.

**Table 6:** ANOVA for Independent Variable on Utilization

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.799	1	11.799	489.814	.000 <sup>b</sup>
	Residual	6.937	250	.024		
	Total	18.736	251			

a. Dependent Variable: Access

b. Predictors: (Constant), Utilization

As shown in Table 6 above, the result of the analysis of variance (ANOVA) on the independent variable of utilization,  $F(1, 288) = 489.814$ ,  $p < 0.05$ . This indicates a statistically significant relationship since the p-value is less than 0.05.

**Table 7:** Coefficient of Independent Variables on Utilization

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.103	.024		4.371	.000
	Utilization	.840	.038	.794	22.132	.000

a. Dependent Variable: Access

The standardized coefficient shown in Table 7 above indicates that the independent variable, access has a strong positive influence on the utilization of Internet facilities for teaching. Beta ( $B=0.794$ , 0.00) shows that the statistical relationship value was less than 0.05.

As indicated in Table 8 below, the Pearson correlation was 0.794 and the p-value was 0.000 indicating that a statistically significant positive relationship exists between teachers' access to and utilization of Internet facilities. This means that the greater teachers' access to Internet facilities, the greater their utilization of such accessible Internet facilities.

**Table 8: Pearson Correlation between Access and Utilization of Internet Resources**

Variables		Availability	Utilization
Access	Pearson Correlation	1	.794**
	Sig. (2-tailed)		.000
	N	290	290
Utilization	Pearson Correlation	.794**	1
	Sig. (2-tailed)	.000	
	N	290	290

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### SUMMARY OF FINDINGS

The findings are summarized below as follows:

1. Schools make limited provision for Internet facilities, likewise, the government does not supply computers and its accessories to the school for helping teachers enhance their instruction skills.
2. Most of the teacher respondents use the Internet to communicate socially than for instruction.
3. Many teachers admitted that the cost of accessing the Internet is too expensive and that there is little access to the Internet in the school.
4. Most of the teachers can operate the computer very well and can run various applications, but although many teachers have sufficient knowledge of computer input devices, they do not use the Internet to prepare a lesson plan.
5. There was a significant positive relationship between teacher’s access to and utilization of Internet facilities.

### DISCUSSION

Research question one sought to determine the Internet facilities that are available in secondary schools in Ilorin. The results obtained indicated that schools have limited provision for Internet facilities, while the government does not supply an adequate number of computers and accessories to the schools for helping teachers enhance their instruction skills. Responses of the participants on the availability of e-library and sufficient Internet centers in the school indicated limitations as many teachers do not have access to e-library. This finding is in support of Okorie (2019) who investigated the secondary school teachers’ perception of the utilization of electronic media for teaching basic technology in the Ilorin Metropolis and deduced that the unavailability of the electronic media affects its utilization thereby affecting performance. Further, the findings align with Kunda, Chember & Mukupa (2018) who assessed the factors that influence Zambian higher education lecturers’ attitude towards integrating ICTs in teaching and research, as inadequate Internet bandwidth, insufficient number of available computers, the expense associated with procurement of hardware and software in the secondary school in developing countries. An earlier study on the Impact of ICT on the Management and Performance of Secondary School Teachers in Kwara State, Nigeria by Olokoba, Abdullahi & Omosidi (2014), although focused on the availability of Internet facilities, established that radio, satellite, interactive CDs, telephones, multimedia projectors, video players, closed circuit televisions, screens, functional computers, Internet-connected computers, and standby generators were not available to most schools in Kwara state. Later, Nwogu (2016) noted the lack of human resources who are not only computer

literate but able to communicate effectively with pupils, and the preponderance of technical and power problems in schools. Ibrahim, (2018) investigated the perception of colleges of education students on the utilization of mobile technologies for learning in North-Central, Nigeria and concluded that android phones are the most available of the ICT facilities available that are used by students in North-Central part of Nigeria.

Whether secondary school teachers in Ilorin can access Internet facilities for instruction was examined in research question two. The results obtained indicated that most teachers use the Internet to communicate socially than for instruction, while many teachers admitted that accessing the Internet is too expensive and that there is little access to the Internet in the school. The studies reviewed suggest that the Internet is available across Africa but there is limited access arising from cost and unavailability of the Internet in remote areas with inadequate infrastructure make it non-existent for a vast majority of persons. This is viewed in contrast to the finding by Amosa, Ogunlade, Ogunlade & Obielodan (2017) in their study on students' learning autonomy and facilitating conditions on the utilization of blended learning among pre-service teachers in University of Ilorin. The researchers noted that learners can complete their education from any location if they have access to the ICT resources. However, Ameen, Adeniji & Abdullahi (2019) concluded that teachers and students in Ilorin were not skilled in utilizing ICT tools and that the gender of both teachers and students in Ilorin does not have any influence on the teaching and learning of mathematics with the use of ICT tools.

The results also showed that information is not difficult to source from the Internet by secondary school teachers, but teachers are not allowed to teach with the Internet in their classroom practice. Research question three sought to find if secondary school teachers in Ilorin utilize Internet facilities for instruction. The mean value showed that the teachers can operate the computer very well, know the functions of all the buttons on the keyboard, can run various applications on the computer and have sufficient knowledge of computer input devices, but they do not use the Internet to prepare a lesson plan. This finding of computer knowledge and use is supported by Soetan, Ogunlade, Fakomogbon & Bolaji (2014) who stated that most frequently used ICT tools in Ilorin are the computer and cell phone with 25% and 23.5% of respondents acknowledging their utilization, however, other ICT tools like television, puppets, audio CD/radio, electronic toys, digital camera, and video were used at 15.8%, 12.7%, 9.2%, 8.1%, 7.7% and 6.2% respectively. However, as shown by Kunda, Chember & Mukupa (2018) the lack of technical support and suitable administrative support, lack of re-training on ICT facilities and lack of knowledge and skills for utilizing ICTs for research were obstacles to the utilization of ICT facilities. Also, Rhodes (2019) concluded that regular application of technologies can make a vital contribution to institutional competitiveness, thereby improving the learning and teaching experience and meeting students' growing expectations. The study by Ameen, Adeniji, and Abdullahi (2019) also found that mathematics teachers and students in Ilorin rarely utilized ICT tools for learning.

The hypothesis tested in this study established a significant positive relationship between teacher access to and utilization of Internet facilities. Support for this finding is noted in the study by Evoh (2017) who established that access to ICT tools influences the usage of such tools in the teaching and learning process. Further, Lavanya & Santharooban (2018) reported issues that impact access to and use of online resources, such as slow Internet connectivity, lack of awareness of online information resources, virus and other malware pop-ups, information overload, inaccessibility of important online resources, unreliable information on the Internet, and the lack of searching/browsing skills. Further, Onojah, Olumorin, Adegbija & Babalola (2019) established that there is a relationship between teachers' and students' access to and utilization of social media in Ilorin.

## **LIMITATIONS OF THE STUDY**

The study focused on correlational studies between secondary school teachers' access to and utilization of Internet facilities for instruction in Ilorin, Nigeria. The findings of this study may therefore not be generalizable to other secondary school teachers outside Ilorin, or to lecturers in Nigerian higher institutions. The study also focused on variables such as availability, access and utilization, but did not examine the impact of attitude, perception, and age. Notwithstanding the limitations, the findings of this study are useful particularly in the context of correlational studies between secondary school teachers' access to and utilization of Internet facilities for instruction in Ilorin, Nigeria.

## **CONCLUSION**

Based on the findings of this study, we can conclude that some Internet facilities were available to secondary school teachers in Ilorin and they have access to the available Internet facilities. Teachers utilize the Internet facilities available in secondary schools in Ilorin and there is a positive relationship between teachers' access to and their utilization of Internet facilities for teaching and learning in secondary schools in Ilorin. Thus, the implication is that if Internet facilities are made available and accessible to teachers, they will utilize it thereby enhancing students' learning which in return improves academic performance. For further research in this area, it is recommended that support be provided to repeat this study in other states in Nigerian schools. Further studies should also be conducted in the context of lecturers in the tertiary education sector. Other constructs such as readiness, self-efficacy, attitude, and motivation towards the use of Internet facilities could also be investigated.

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