

# Internet Literacy and Research Study among Final Year Mathematics Undergraduates in Ignatius Ajuru University of Education

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## Abstract

In this study, the authors evaluated role of Internet literacy on research study among final year mathematics undergraduates in Ignatius Ajuru University of Education. To start, the study x-rayed the extent to which students have access to Internet facilities. Secondly, highlight the relationship between Internet access and students' performance in mathematics research; thirdly, the ways students' use of the Internet can influence their research abilities, and fourthly, the problems associated with students' use of Internet. The empirical side of this study included the collection of data from final year students of Ignatius Ajuru University of Education through a structured questionnaire. The instrument used in this study was validated by experts in measurement and evaluation of instrument from Ignatius Ajuru University of Education. The internal consistency of the instrument was observed by calculating Cronbach alpha, which gave .887. Statistical Package for the Social Sciences (SPSS) version 23 was employed and multiple statistical analyses (mean, standard deviation and cross tabulation) were carried out. Chi-square ( $X^2$ ) was used to determine the relationship between variables. The study found relationships with all the dimensions of the variables tested. The suggestive part revealed the study's findings. The more Ignatius Ajuru University and other institutions of higher learning associate with Internet facilities and ensure literacy in the use of ICT infrastructures, the more their quality of teaching, learning and research activities will improve. Institutional leaders should ensure that ICT facilities are constantly made available, Internet connectivity should be strong and students should be encouraged to carry out their academic work using the Internet, because Internet provides up-to-date information for research studies.

**Keywords:** Internet Literacy, Research Study, Final Year, Mathematics, Undergraduates, Tertiary Institutions, Rivers State, Nigeria.

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## INTRODUCTION

Internet has revolutionised the world and it has impacted on the way economic, political, social and educational issues are run. Internet is an electronic communication that links computer facilities and network around the world. Adomi (2008) defined Internet as an integration of computer networks interconnected globally through backbone networks. The Internet connects

millions of computers together universally and creates the opportunity for computer users to communicate as long as they are connected together.

The Internet is always on to accommodate many people whose lives are saturated with digital technology such that more time are spent online than offline, this may be as a result of office demands, especially among the working class while the youths spend most of their time online socialising and of course carrying out some academic activities. In fact, it is often noted that younger generations are not able to discuss the Internet as a discrete entity because it permeates them. Since young people are digital natives, online practices are like oxygen, water, or electricity that sustains the modern life. According to Tapscott (2009), technology to the youth is like the air they breathe for survival. Thus, most discussion about the Internet and education is like discussing about contemporary education. The Internet is a global element of education such that its widespread educational significance will continue to increase as much as educational related applications were discovered.

There are various ways to access the Internet since it is decentralised unlike online services. The wide range of information on the Internet makes students and other Internet users to access information easily. However, there are skills, knowledge and behaviours an Internet user must acquire in order to access online information effectively. All users of the Internet facilities are expected to have a high level skill for them to utilize the service/systems effectively (Igun, 2005). Johnson (2007) is of the view that ‘abilities to find, use, manage, evaluate and convey information efficiently and effectively must be consciously developed.

### **Statement of the Problem**

Many students are turning to the Internet as a major source for information gathering in order to carry out research. An examination into the researches done by some past undergraduate mathematics students of Ignatius Ajuru University of Education, Rivers State revealed that such researches fall below the standard of an average mathematics undergraduate. As a result, the purpose of this study is to:

- Determine availability of Internet facility;
- Determine if students have access to Internet facility;
- Determine the efficacy of Internet usage on students’ research abilities; and
- Determine the problems students encountered in using the Internet.

### **Research Questions**

- To what extent do students have access to Internet facilities?
- Is there any relationship between Internet access and students’ performance?
- In what ways can students’ use of the Internet influence their research abilities?
- What are the problems students encountered during the use of Internet?

### **Hypotheses**

- There is no significant relationship between Internet facilities and students’ performance in research.

- There is no significant relationship between Internet access and students' performance in research.
- There is no significant relationship between students' use of Internet and their research abilities.
- There is no significant relationship between the problems students encountered during the use of Internet and their research abilities

## **LITERATURE REVIEW**

### **Access to Internet and Internet Facility in Nigeria**

For students to make best use of the technological breakthrough, acquiring knowledge by Internet has taken a vital place in their lives. For students to keep pace with time Internet facilities have to be provided and access to it should not be difficult. According to Omagbemi, Akintola and Olayiwola (2004), Internet connectivity is a necessity, not a luxury. The Internet provides a variety of facilities, including social networking, instant messaging, email, tweeting and video conferencing. These facilities create the possibility for people to be in touch with each other in a well-organized way. The Internet also offers blogging services and websites that organizations, institutions, consortium, etc. use to advance their operations around the globe.

As affordable and up-to-date information are accessible on the Internet, the conventional library is gradually becoming part history. Learning becomes more significant and interesting when an environment to access the needed information is created. The global free flow of information was brought by the Internet (Chigbu & Dim, 2012). It is interesting to note that one could access any type of information on nearly every topic using the Internet.

Globally, Internet facilities have impacted on educational methodology. Nevertheless, this uprising is not prevalent and has to be boosted to reach a large proportion of the populace. Because of the complexity of the Nigerian society, there are many factors that affect the use and integration of the Internet, it is therefore necessary to employ an integrated approach to guarantee the successful improvement, access and integration of Internet in Nigeria especially in her educational system.

Internet grants access to a large wealth of information and tools that make research easy (Oketunji, 2004). Internet creates ample opportunity for the conduct of remote classes, permit access to distant libraries and provides enabling environment for innovative and mutual learning experiences.

### **Use of Internet by Mathematics Students in Nigeria**

It is obviously becoming difficult to talk about the contemporary society without making reference to the Internet. These days it is difficult to think the unimaginable, life without the existence of the Internet (James 2010). According to Merret (2015) so many people are not aware of Internet potential or may not be able to use it because there is limited or lack of useful content in their local language. There are so many people who could not use the Internet; this is common among Internet migrants from developing countries, even when the facilities are available to them in any form. There is a very serious need for Internet literacy especially for migrants and natives who were not easily exposed to Internet facilities.

Internet literacy is an advanced form of basic literacy and it has to do with the ability to work with Internet services. The skill for locating information on websites, competence to send and receive e-mails, use of other online services and Internet options like Internet social networks, instant messaging, etc and options for e-business solutions needs to be consciously acquired through learning.

Although conscious efforts was put in place to ensure that Internet are provided and used in the Nigerian educational system, the takeoff level is still low (Adomi & Kpangban, 2010). Consequently, mathematics students in Nigeria are yet to fully use the Internet in their studies and everyday life as it is being practiced in the developed countries.

### **Internet Usage on Mathematics Students' Research Abilities in Nigeria**

One of the major technological advancements of the late 20th century is arguably the Internet. However, irrespective of the added advantages of this tool to research, teaching and learning, a number of challenges still bedevil Internet connectivity and utilization in the Nigerian University system

The appearance of Internet in tertiary institutions in Nigeria was used as a means for easy gathering, communicating and sharing of information among researchers. The education sector today is still one of the major contributors to the Internet. Despite some drawbacks, Internet has the following advantages among others: it is comparatively fast, it is available any time you want, and it accessible even when you use your computer system. More students are carrying out their research completely on the Internet. Even though this is a welcome development it is worthy of note at this juncture that the Internet does not make every information available. Most colleges of education, polytechnics and universities in Nigeria have established their existence on the Internet; it is now possible for researchers to have contact with current and past research publications. Students and potential students alike can also access materials on their courses, projects, research and their admission requirements.

The World Wide Web also creates easy access to books, journals, newspapers, magazines, and archives which support research students in their research endeavours. Also available now are hundreds of serials published through the Internet. A study carried out by Jagboro (2003) showed that there is a low level of use of the Internet by undergraduate research students. It was abundantly clear that the low level of Internet use was attributed to low connectivity level and high charges at cybercafé. Considering the vast academic resources on the Internet and its worth to research, teaching and learning it is expedient for Higher Institutions in Nigeria to ensure guaranteed right to use the Internet as a means of promoting journals and books collections. This could be done through the provision of multiple access points in the University at the Unit, Departmental and Faculty levels. It is believed that this would generate a more cheering environment for academic researchers to use the Internet.

### **Problems with the Use of Internet in Nigeria**

In almost the whole of sub-Saharan African countries', rudimentary Internet facilities and infrastructures are inadequate. Ololube (2006) observed that the lack of electricity to power the ICT materials, poor telecom facilities and access, and insufficient funds in general has all constituted major setbacks in students' ability to effectively use the Internet in Nigeria. Nigeria spends less than 11% of its annual budget on education in general and the money spent on ICT

and Internet facilities is nothing to be proud of. In Nigeria, poverty has also been a major obstacle to the purchase of Internet facilities and access to it.

According to Ololube and Egbezor (2009), more than 85% of the population live below the poverty line of 2 Dollar per day, as a result, an average parent (middle-income earner) does not have basic technological and communication gadgets at home to facilitate students learning. The cost of ICT gadgets in Nigeria is trice the monthly wage of an average parent. As such, computer related facilities remain less useful for most Nigerian homes. Thus, Internet facilities are still a luxury in Nigerian institutions of higher education, as well as in offices. Because of this trend, many Nigerian students do not have the opportunity to develop the skills to use them, and has made the integration of necessary Internet facilities (e-mail, world-wide-web) (Hadden & Voss, 2006) difficult in tertiary institutions in Rivers State.

The goal of ICT is to provide comprehensive knowledge and skills for practitioners. ICT knowledge and skills are essential for today's student because they allow students to stay current with the computer and telecommunications technologies used in school and beyond the confines of the school (Ifinedo, 2005). Nigeria tends not to have the required ICT infrastructural facilities and support like the developed countries. Several cities and rural areas in Nigeria are yet to access electricity and some are still experiencing fluctuations in electricity supply. In addition, most Nigerians do not have regular access to ICT facilities including computers, e-mail, and Internet connectivity (Ololube, Ubogu & Egbezor, 2007).

Furthermore, never in the history of human being have there been so many people with access to computers, digital networks, and electronic communication technologies that aid learning. Internet access and facilities, attitude and anxiety offer conflicting thinking. Researchers (e.g., Ololube et al., 2013) support the idea that increasing ICT experience decrease attitude and anxiety. Studies (Afari-Kumah & Tanye, 2009; Mac-Ikemenjima, 2005; Ololube, 2007) found that students with little or no Internet experience have more anxiety than those students that have experience. Their study revealed that increased levels of Internet experience and balance of weekly computer usage were both related to reduced level of Internet/computer related anxiety.

## **METHODOLOGY**

### **Research design**

The purpose of this study determined the design of the study. The research design employed in this study was an expressive, empirical and suggestive approach, which was aimed to determine if Internet literacy influence research study among final year mathematics undergraduates in tertiary institutions in Rivers State, using Ignatius Ajuru University as a case study. Firstly, the study x-rayed the extent to which students have access to Internet facilities. Secondly, highlight the relationship between Internet access and students' performance in research in mathematics; thirdly, the ways students' use of the Internet can influence their research abilities, and fourthly, the problems associated with students' use of Internet. The empirical side of this study included the collection of data from final year students of Ignatius Ajuru University of Education through a structured questionnaire. The suggestive part revealed the study's findings. Data for this study was collected in June 2017.

## Sample and Procedure

This study's sample consisted of all final year undergraduate mathematics students of Ignatius Ajuru University of Education, Port Harcourt, Nigeria. The data for the study were collected in June 2017. The twenty five final year mathematics students constituted the population, as such, twenty five (25) questionnaires were distributed, while twenty two (22) was retrieved, which represents 88% of the entire population. Thus twenty two (22) students constituted the sample size.

## Measurement Instrument

A self-structured questionnaire was used for data gathering, which was directed at finding out the extent to which students have access to Internet facilities; the relationship between Internet access and students' performance on research in mathematics; the ways students' use of the Internet can influence their research abilities; and the problems associated with the use of Internet. The questionnaire consisted of 20 items, which were stated in line with the research hypotheses (see table 1). The items on the survey used a 4-point Likert scale ranging from 1=totally disagree (TD) to 4=totally agree (TA).

Section one of the instrument included items of final year undergraduate mathematics students' demographic information. Section two talked about the extent to which students have access to Internet facilities, and how it can influence their research study. This is followed by the relationship between Internet access and students' performance on research in mathematics. The next section consisted of the ways students' use of the Internet influence their research abilities in mathematics. This section examined students' perception of how Internet use can influence their research abilities in mathematics. Section four investigated the problems associated with the use of Internet. This section was designed to examine students' perception of the problems that probably hinder their ability to access and use the Internet in a proactive way.

Table 1: Dimensions of Internet literacy on research study

<b>Internet facilities</b>	
1	There is sufficient Internet browsing facilities for research study in your university
2	There is active Internet connectivity for research study in your university
3	Internet facilities like social networking, instant messaging, email, and tweeting assist in research study in your university
4	Internet facilities provide up-to-date information for research studies
5	Internet facilities have impacted on research studies in your university
<b>Access to Internet</b>	
6	For students to keep pace with their research study, access to Internet is important
7	Access to Internet connection is a necessity for research study
8	Access to Internet offers websites that are relevant to research studies
9	My university provides easy access to Internet to aid research studies
10	Access and integration of Internet are especially good for educational research.
<b>Internet use</b>	
11	I would find Internet useful in my studies
12	Internet use is compatible with my learning style
13	The use of Internet will increase my chances of getting my research work done

14	The use of Internet is good for my academic growth generally
15	Ease in the use of Internet means ease in gathering, communicating and sharing of information among researchers
<b>Problems/challenges in the use of Internet</b>	
16	Rudimentary Internet facilities and infrastructures are inadequate
17	Poverty is a major obstacle to the use of internet for research works
18	I do not have comprehensive knowledge and skills in the use of Internet for my research work
19	I am nervous anytime I find myself using the Internet for my research
20	My Internet inexperience makes me more uneasy than those students that have experience

### Validity and Reliability of Instrument

The instrument used in this study was validated by experts in measurement and evaluation of instrument from Ignatius Ajuru University of Education, and the instrument was administered to 15 persons outside the population and the sample used in the study. The reliability of the items in the instrument, which comprised of each of the dimensions under study were examined to ensure that the items individually and collectively measure what they intend to measure, and the internal consistency was observed by calculating Cronbach alpha, which gave .887. As such, the instrument was pronounced to be reliable.

### Data Analysis

The statistical analyses used in this study were carried out using the Statistical Package for the Social Sciences (SPSS) version 23. Descriptive statistics (mean, standard deviation and cross tabulation) were carried out. Chi-square ( $X^2$ ) was used to determine the relationship between variables.

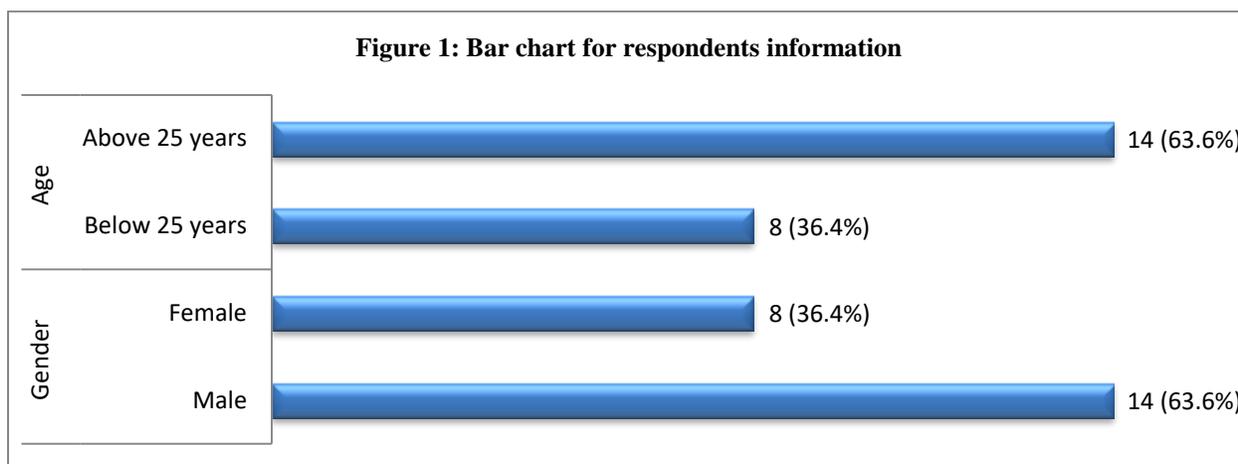
The mean ( $\bar{x}$ ) scores were used to determine the acceptance or rejection of the rating items. To make precise decisions on the results obtained, the mean responses were computed on the basis of a 4-point Likert scale, thus,  $1+2+3+4=10$ , thus,  $10 \div 4=2.5$ . From the computation, any mean scores that are more than 2.5 indicates that the null hypotheses will be rejected, while the mean scores that are less than 2.5 will be accepted. The Chi-square analysis was set at  $p < .05$  significance level.

## RESULTS AND DISCUSSION

Descriptive statistics of respondents' information (Table 2 and Figure 1) reveal that 14 (63.6%) were male while 8 (36.4%) were female. The information on age revealed that 14 (63.6%) were above 25 years while 8 (36.4%) were below 25 years.

Table 2: Descriptive Statistics of Respondents Information

Respondent Information		Frequency (N)	Percentage (%)
Gender	Male	14	63.6
	Female	8	36.4
Age	Below 25 years	8	36.4
	Above 25 years	14	63.6



### **Research Question One/Hypothesis One: Internet Facilities**

The facts from the data presented in Table 3 condensed students cross tabulation, mean scores, and chi-square ( $\chi^2$ ) analyses of the five items on students answer to the availability of Internet facilities. The study revealed that final year students of mathematics at the Ignatius Ajuru University of Education agreed that there are insufficient Internet browsing facilities for research study in the university (mean = 2.5455, SD = .96250). They neither agreed nor disagreed that there is active Internet connectivity for research study in the university (mean = 2.5000, SD, .80178) and agreed that Internet facilities like social networking, instant messaging, email, and tweeting assist in research study in their university (mean = 2.7273, SD = .76730). They were also of the opinion that Internet facilities provide up-to-date information for research studies (mean = 3.0455, SD = .78542), and equally agreed that Internet facilities have impacted on research studies in your university (mean = 3.2273, SD = .68534). The results in Table 3 showed that all the mean scores are above 2.5, and all the chi-square results showed that significant relationships exist in all the items (15.273, .000; 8.909, .031; 10.727, .013; 10.636, .011; and 14.455, .001) respectively. Thus, hypothesis one, which states that ‘there is no significant relationship between Internet facilities and students’ performance was rejected. Therefore, the results revealed that there are significant relationships between Internet facilities and students’ performance in their research.

### **Research Question Two/Hypothesis Two: Access to Internet**

The information in table 4 recaps students rating of items on access to Internet. Their opinions depicts that for students to keep pace with their research study, access to Internet is important (mean = 3.8182, SD = .89477;  $\chi^2 = 8.909$ , significant at .003), and they hold that access to Internet connection is a necessity for research study (mean = 3.6818, SD = .77673;  $\chi^2 = 9.909$ , Significant at .018). Similarly they agreed that access to Internet offers websites that are relevant to research studies (mean = 3.4091, SD = .66613;  $\chi^2 = 6.091$ , Significant at .048). They were also of the view that university provides easy access to Internet to aid research studies (mean = 2.9545, SD = .78542;  $\chi^2 = 11.818$ , Significant at .008). To them, access and integration of Internet are especially good for educational research (mean = 3.4091, SD = .73414;  $\chi^2 = 5.549$ ,

Significant at .042). The results in table 4 shows that all the mean scores are above 2.5 and all the chi-square results showed that there are significant relationships between Internet access and students' performance in research. As a result, hypothesis 2 was rejected.

### **Research Question Three/Hypothesis Three: Internet Use**

Data in Table 5 summarizes final year mathematics students' perception on the relationship between Internet access and students' performance in research. The students perceived that they find Internet useful in their studies (mean = 3.5909, SD = .73414;  $\chi^2 = 13.727$ , Significant at .001), and perceived that Internet use is compatible with their learning style (mean = 3.2273, SD = .86914;  $\chi^2 = 10.818$ , Significant at .014). They also opined that the use of Internet will increase their chances of getting their research work done (mean = 3.5909, SD = .73414;  $\chi^2 = 13.727$ , Significant at .001). They stated that the use of Internet is good for their academic growth generally (mean = 3.6364, SD = .72673;  $\chi^2 = 16.455$ , Significant at .000). Equally they were of the view that the ease in the use of Internet means ease in gathering, communicating and sharing of information among researchers (mean = 3.3636, SD = .72663;  $\chi^2 = 8.273$ , Significant at .016). The results in table 5 shows that all the mean scores are above 2.5, and all the chi-square results showed that significant relationships between students use of Internet and their research abilities. Hence, hypothesis 3 was rejected.

### **Research Question Four/Hypothesis Four: Problems/Challenges in the Use of Internet**

The numerical presentation in table 6 summarizes students view on items on the problems/challenges in the use of Internet. Respondents were of the opinion that the rudimentary Internet facilities and infrastructures are inadequate (mean = 2.9545, SD = .95005;  $\chi^2 = 13.273$  and significant at .003). They were also of the opinion that poverty is a major obstacle to the use of internet for research works (mean = 3.7727, SD = .92036;  $\chi^2 = 15.364$  and significant at .000), as much as they argued that they do not have comprehensive knowledge and skills in the use of Internet for research work (mean = 2.7100, SD = .82353;  $\chi^2 = 5.545$  and significant at .048). They hold that they are nervous anytime they find themselves using the Internet for research (mean = 3.6818, SD = .94548;  $\chi^2 = 14.727$  and significant at .002). They are of the view that their Internet inexperience makes them more uneasy than those students that have experience (mean = 2.6909, SD = .90880;  $\chi^2 = 5.909$  and significant at .049). The result presented in Table 6 shows that all the mean scores are above 2.5 and all the chi-squares display significant relationships between the problems students encountered during the use of Internet and their research abilities. Consequently, hypothesis 4 was rejected.

Table 3: Students answer to items on Internet facilities

	<b>1. Internet facilities</b>										
	TD	D	A	TA	Mean	SD	( $\chi^2$ )	Df.	Sig.		
1	4 (18.2%)	10 (45.5%)	5 (22.7%)	3 (13.6%)	2.5455	.96250	15.273	3	.000		
2	2 (9.1%)	9 (40.9%)	9 (40.9%)	2 (9.1%)	2.5000	.80178	8.909	3	.031		
3	1 (4.5%)	7 (31.8%)	11 (50.0%)	3 (13.6%)	2.7273	.76730	10.727	3	.013		
4	-	6 (27.3%)	9 (40.9%)	7 (31.8%)	3.0455	.78542	10.636	2	.011		
5	-	3 (13.6%)	11 (50.0%)	8 (36.4%)	3.2273	.68534	14.455	2	.001		

Table 4: Students answer to items on access to Internet

	<b>1. Access to Internet</b>										<b>Sig.</b>
	<b>TD</b>	<b>D</b>	<b>A</b>	<b>TA</b>	<b>Mean</b>	<b>SD</b>	$(\chi^2)$	<b>Df.</b>			
6	-	-	4 (18.2%)	18 (81.8%)	3.8182	.89477	8.909	1			.003
7	-	-	7 (31.8%)	15 (68.2%)	3.6818	.77673	9.909	1			.018
8	-	2 (9.1%)	9 (40.9%)	11 (50.0%)	3.4091	.66613	6.091	2			.048
9	1 (4.5%)	4 (18.2%)	12 (54.5%)	5 (22.7%)	2.9545	.78542	11.818	3			.008
10	-	3 (13.6%)	7 (31.8%)	12 (54.5%)	3.4091	.73414	5.549	2			.042

Table 5: Students answer to items on Internet use

1. Internet use		TD	D	A	TA	Mean	SD	( $\chi^2$ )	Df.	Sig.
11	I would find Internet useful in my studies	1 (4.5%)	-	6 (27.3%)	15 (68.2%)	3.5909	.73414	13.727	2	.001
12	Internet use is compatible with my learning style	-	6 (27.3%)	5 (22.7%)	11 (50.0%)	3.2273	.86914	10.818	2	.014
13	The use of Internet will increase my chances of getting my research work done	1 (4.5%)	-	6 (27.3%)	15 (68.2%)	3.5909	.73414	13.727	2	.001
14	The use of Internet is good for my academic growth generally	1 (4.5%)	-	5 (22.7%)	16 (72.7%)	3.6364	.72673	16.455	2	.000
15	Ease in the use of Internet means ease in gathering, communicating and sharing of information among researchers	1 (4.5%)	-	11 (50.0%)	10 (45.5%)	3.3636	.72663	8.273	2	.016

Table 6: Students answer to items on problems/challenges in the use of Internet

	1. Problems/challenges in the use of Internet	TD	D	A	TA	Mean	SD	( $\chi^2$ )	Df.	Sig.
16	Rudimentary Internet facilities and infrastructures are inadequate	2 (9.1%)	4 (18.2%)	9 (40.9%)	7 (31.8%)	2.9545	.95005	13.273	3	.003
17	Poverty is a major obstacle to the use of internet for research works	3 (13.6%)	5 (22.7%)	8 (36.4%)	6 (27.3%)	3.7727	.92036	15.364	3	.000
18	I do not have comprehensive knowledge and skills in the use of Internet for my research work	2 (9.1%)	6 (27.3%)	5 (22.7%)	9 (40.9%)	2.7100	.82353	5.545	3	.048
19	I am nervous anytime I find myself using the Internet for my research	1 (4.5%)	4 (18.2%)	4 (18.2%)	13 (59.1%)	3.6818	.94548	14.727	3	.002
20	My Internet inexperience makes me more uneasy than those students that have experience	2 (9.1%)	8 (36.4%)	8 (36.4%)	4 (18.2%)	2.6909	.90880	5.909	3	.049

## CONCLUSION

This research article has presented researchers, institutional heads and policy makers with basic knowledge about the relationships between Internet literacy and research study among final year mathematics undergraduates of Ignatius Ajuru University of Education. It provided an initial evaluation of the Internet facilities, access to it, the use of it, and the problems and challenges students encounter during the use of Internet in their research work. As an expressive, empirical and a suggestive study, with a primary limitation of the concerns of its generalizability, the study sampled the viewpoint of only final year students of mathematics option. The study did not measure the opinion of the rest of the students in Ignatius Ajuru University of Education, Port Harcourt, Nigeria.

The research approach adopted gave backing to the study's problems, purpose, research questions and hypotheses, which exposed that there are significant relationship between Internet facilities and students' performance in research, Internet access and students' performance in research, students' use of Internet and their research abilities and the problems students encounter during the use of Internet and their research abilities.

It is suggestive of the fact that Internet facilities, access to it, the use of it and the problems associated with the use of it should be addressed as a matter of urgency. Evidences from the literature reviewed revealed significant relationships between the four dimensions (Internet facilities, access, use and problems) under study.

The more Ignatius Ajuru University and other institutions of higher learning associate with Internet facilities and ensure literacy in the use of ICT infrastructures, the more their quality of teaching, learning and research activities will improve. Institutional leaders should ensure that ICT facilities are constantly made available, Internet connectivity should be strong and students should be encouraged to carry out their academic work using the Internet, because Internet provides up-to-date information for research studies. Thus, the Internet is a major provider of resource materials.

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