

# **Gender Factors in Internet Usage by Teachers in Public Secondary Schools in Abia State, Nigeria**

By

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## **Abstract**

The study investigated the gender factors in internet usage by public secondary school teachers in Abia State. Two research questions were postulated and a null hypothesis formulated was tested at 0.05 level of significance. The descriptive survey design was adopted in this study. The population of the study was two thousand and twenty (2,020) comprises of one thousand and fifteen (1,015) female and one thousand and five (1,005) male teachers. Using purposive random sampling, a sample size of 231 teachers were selected and used as respondents to the study. The structured questionnaire titled internet as a resource media for teachers in public secondary schools in Abia State (IRMFTFSS). The instrument consist of four sections on a 4-point rating scale of strongly agreed (SA), Agreed (A), strongly disagreed (SD) and Disagreed (D) weighing 4, 3, 2, 1 respectively. The reliability index of the instrument was established using PPMC to correlate response of 30 respondents from Imo State. The reliability co-efficient value of obtain for the instrument were 0.76 showing that the instrument was reliable. The instrument was validated by two experts in the field of educational measurement and evaluation. Thereafter, the instrument was revised according to the expert comments with the necessary modification effected in the final copy. The researchers administered 231 copies of the questionnaire, 200 correctly completed copies were retrieved accounting for about 91% return rate. The descriptive statistics mean was employed to analyze the research questions. The mean of 2.50 and above was used as the range for which an item is considered accepted, while the mean score below 2.50 were rejected. The study findings were that both male and female teachers level of computer literacy and awareness is low. And there is no statistical difference in the opinion of the respondents about their gender in internet usage in public secondary schools. Thus it was recommended that government should install computer systems in public secondary schools, create room for training. And that the public secondary school teachers should be provided with individual computer like laptops or desktops with interconnectivity so that they can be used during teaching.

**Key Words:** Gender, Internet, Secondary School, Teachers and ICTs

## **Introduction**

The Internet is an incredible tool which is very useful for educational purposes. The internet is now a global means of information sharing information which teachers and students have been using since the advancement of modern technology such as easy communication, online entertainment as well as gaining or receiving information in any field of life. Considering the uses of the internet other than educational, it is mostly used in part for social and entertainment purposes (Thomas & Amaechi, 2017). However, it is obvious that the Internet provides not only

social connection and entertainment but also academic and overall information of the world as well. Therefore, it can be said that the Internet is the source of spreading information quickly to a large audience and of going beyond the limitation of time and space (Asubiojo & Ajayi, 2017). Hence the accessibility of internet services in many public places such as schools, universities, libraries, and colleges are of immense important. Yet they are still characterized by frequent breakdown of systems, slow internet connectivity, inadequate computers, unreliable power supply and inadequate computers (Sife, 2013). Furthermore, internet based information is an effective resource for teachers in secondary schools in Nigeria. Agbatogman (2013) maintain that ICT usage in the learning environment provides unrestricted access to information for teachers and learners irrespective of location and time (any place and any time) ensuring high quality of content delivery. However there seem to be a shortfall in access to internet by teachers because of poverty. Also, lack of proper training on the use of the internet for instructional delivery is another major reason for this limited access and use of internet resources in teaching. In order to actualize the enviable task of teaching, the teacher makes adequate preparation and planning which includes; statement of objectives, selection of content, learning experience and selection of instructional media etc. Abubakar (2017) the teacher use the internet to surf for information and learning resources which helps learners to acquire facts, skills or opinion to develop cognitive processes therefore its importance cannot be over emphasized. The internet provides an array of powerful applications in every aspect of human endeavor which may help in transforming the isolated teaching & learning process in Abia State. Applications with educational uses are; Electronic teaching (e-learning), electronic mail (e-mail), information base and information retrieval.

Teachers can use the internet to enhance their knowledge (computer based instructions), teach

the students (computer assisted instructions) and also interact with other teachers around the globe. According to Moila & Makgato (2014), the use of ICT in education is simply the use of ICT tools, which includes browsing of internet in search of information for lesson preparation, emailing to communicate with students and fellow teachers, downloading and storing of data for educational purposes, using power point to prepare presentation, using interactive whiteboards and many more activities.

Teachers should understand that the internet offers these services and even more so that they can take full advantage of it, since it plays a vital role in teaching, research and learning processes.

If the teachers are aware of the uses of the internet and have access to its facilities, it will help them solve some of the problems they face in teaching. A study by Aworanti (2016), stated that poor ICT competency among teachers is one of the main factors that hinders the use of internet in Nigeria educational system. In Nigeria, most of the teachers lack the skills and knowledge needed for the successful and productive use of ICT gadgets in teaching. Without the skills, knowledge and competency on the use of ICT materials, the implementation of any ICT related instruction becomes a problem in secondary schools. Also in a study by Viatonu, Olagunju and Adesanya (2013) they reported that male teachers use the internet more than their female counterparts in private colleges and secondary schools. It could also be applicable in the public schools that gender could be a factor that influences use of the internet for teaching in secondary schools in Abia State.

Research studies have shown that the benefits of ICT in education, the use of ICT in Abia state, Nigeria is low (Ejinkeonye & Usoroh, 2016). It is against the prevailing circumstances that this study was carried out to tackle the problem of teachers' unawareness for internet use as a source of teaching materials and ascertain the level of computer literacy among teachers in secondary

schools in the state. Hence the problem of this study was to unravel what gender differences influences the level of preparedness of the teachers towards adoption of internet facilities for teaching in Abia State secondary schools.

### **Purpose of the Study**

The purpose of this study was to investigate the gender factors in internet usage among public secondary school teachers in Abia State.

Specifically, the study sought to find out:

- i. the level of computer literacy among the teachers by their gender in Abia State
- ii. the extent of awareness of the internet among the teachers by their gender in Abia State

### **Research Questions**

The following research questions were postulated to guide the study.

1. What is the level of computer literacy of male and female teachers in public secondary schools in Abia State?
2. What is the level of Awareness on Internet use of male and female teachers in public secondary schools in Abia State?

### **Hypothesis**

There is no significant difference between male and female teachers mean ratings with regards to their level of computer literacy in secondary schools in Abia State at 0.05 level of significance.

### **Method and Materials**

Descriptive survey research design was adopted in this study. The population of the study is two thousand and twenty (2,020) comprises of one thousand and fifteen (1,015) female and one thousand and five (1,005) male teachers. Using purposive random sampling, a sample size of 231 teachers was drawn from seventeen public secondary schools formed the population in Abia-

South LGA of Abia State. The instrument used for collection of data was a structured questionnaire titled internet as a resource media for teachers in public secondary schools in Abia State. (IRMFTFSS) The instrument consist of four sections on a 4-point rating scale of strongly agreed (SA), Agreed (A), strongly disagreed (SD) and Disagreed (D) weighing 4, 3, 2, 1 respectively.

The reliability index of the instrument was established using PPMC to correlate response of 30 respondents from Imo State. The instruments were administered to different sets of respondents for the study in two different occasions within two weeks interval. The two sets of scores for each, instrument were correlated respectively using person product moment correlation co-efficient (r) (PPMC) formula. The reliability co-efficient value of .76 was obtained for the instrument, showing that the instrument was reliable. The instrument was validated by two experts in the field of educational measurement and evaluation. Thereafter, the instrument was revised according to the expect comments with the necessary modification effected in the final copy.

The researchers administered 231 copies of the questionnaire, 200 correctly completed copies were retrieved accounting for about 91% return rate.

The descriptive statistics mean was employed to analyze the research questions. The mean of 2.50 and above was used as the range for which an item is considered accepted, while the mean score below 2.50 were rejected.

## **Result and Discussion**

### **Research Question 1**

What is the level of computer literacy of male and female teachers in public secondary schools in Abia State?

Table1.

**Mean Ratings of Male and Female Teachers with regards to their Level of Computer Literacy in Teaching and Learning in public Secondary Schools.**

S/ No	Items statements	Male Total Score	Female total score	Male $\bar{X}$ (n-110)	Female $\bar{X}$ (n-90)	Remark
1	There is low level of computer literacy among public secondary school teachers in Abia State.	235	185	2.13	2.05	Disagree
2	There is high level of computer literacy among public secondary teachers in Abia State	209	205	1.99	2.28	Disagree
3	Computer literacy is moderate among public secondary school teachers in Abia State	333	275	3.02	3.06	Agree
4	There is no computer literacy among public secondary school teachers in Abia State	244	190	2.21	2.11	Disagree
	<b>Grand mean Average</b>			<b>2.34</b>	<b>2.37</b>	<b>Disagree</b>

Data in table 1 showed that the both respondents, in items 1, 2 and 4 are having mean scores (2.13 & 2.05; 1.99 & 2.28; 2.21 & 2.11) respectively, which is below the cut-off point of 2.50 and were disagree, while in item 3 the both had mean of (3.02 & 3.06) which were above 2.50 and it is agreed. Their grand mean of 2.34 and 2.37 also indicated that both the male and female teachers' level of computer literacy with regards to internet as a resource media was low. From the data above it is established that public secondary school teachers in Abia State has low level of computer literacy.

#### Research Question 2

What is the level of Awareness on Internet use of male and female teachers in public secondary schools in Abia State?

Table 2

<b>Mean Ratings of Male and Female Teachers on their Awareness of Internet use as teaching media</b>						
<b>S/No</b>	<b>Items Statements</b>	<b>Male Total Score</b>	<b>Female total score</b>	<b>Male <math>\bar{X}</math> (n-110)</b>	<b>Female <math>\bar{X}</math> (n-90)</b>	<b>Remarks</b>
5	Every public secondary school teachers in the state is aware of internet.	245	213	2.22	2.36	Disagree
6	Every public secondary school teachers in gets information from the internet.	251	195	2.28	2.16	Disagree
7	Some public secondary school teachers are aware of internet and can assess it in Aba-South L.G.A Aba	316	304	2.87	3.39	Agree
8	Every public secondary school teachers in Aba-South L.G.A can assess the internet	223	172	2.02	1.91	Disagree
<b>Grand Mean Average</b>				<b>2.35</b>	<b>2.46</b>	<b>Disagree</b>

Data in Table 2 indicates that both respondents, had mean in items 5(2.22, 2.36), 6(2.28, 2.16) and 8(2.02, 1.91) which is below cut-off point of 2.50 and are regarded as disagree, while in item 7 they had varying mean (2.87, 3.39) for male and female respectively. The grand mean values of 2.35, 2.46 is below the cut-off point of 2.50 indicating that both male and female teachers disagreed to the items on awareness of internet use as a tool for resource media.

### Hypothesis

There is no significant difference between male and female teachers mean ratings with regards to their level of computer literacy in secondary schools in Abia State.

Table 3

**Z-test Analysis of Significant Difference between the Mean Responses of Male and Female Teachers regarding their level of Internet Usage**

<b>Gender</b>	<b>N</b>	<b><math>\bar{X}</math></b>	<b>SD</b>	<b>df</b>	<b>z-cal</b>	<b>z-crit</b>	<b>Decision</b>
Male	110	2.40	.40				
Female	90	2.43	.37	198	1.05	1.96	Rejected

Analysis of data in table 3 showed that the z-cal (1.05) is less than the z-critical (1.96) df=198, at .05 level of significance for a two-tail test; hence the null hypothesis is accepted. This means that there is no statistical significant difference between the mean response of male and female teachers in the level of computer literacy in public secondary schools in Abia State.

### **Discussion of Findings**

Analysis of data on research question one revealed that the teachers in public secondary school in Abia State do not vary in their opinion with regard to gender about their level of computer literacy. The result of the study indicated agreed with the findings of Thomas & Amaechi (2017) who reported that, respondents disagree to the use of some ICT facilities across gender.

The results in table 2 also revealed that the level of teachers awareness on the internet use does vary according to gender, as both male and female teachers rated the items variables alike, and was low and that also affected the teaching and learning methods in the school as it was observed in research question two. The finding is in line with the outcome of the research studies by Ejinkeonye & Usoroh (2016) which reported that the benefits of ICT in education, the use of ICT in Abia state, Nigeria is low

### **Conclusion**

Based on the results of this study therefore, it could be affirmed that there is low level of computer literacy and awareness among public secondary school teachers in Abia State.

The low level of computer and ICT penetration in these schools may be due to unavailability of the gadgets in the schools or the teachers' willingness to keep pace with trend of things.



## Recommendation

1. The government should install computer systems in public secondary schools in Abia State to enhance teacher's effectiveness in the classroom.
2. The government should create room for training; opportunities should be given to the teachers in order to encourage teacher computer appreciation training.
3. The public secondary school teachers should be provided with individual computer like laptops or desktops with interconnectivity so that they can be used during teaching and learning process.

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