Accessibility and Internet Usage by Teachers in Public Secondary School in Abia State, Nigeria

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Abstract
The study investigated the accessibility and 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 that were 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 0.87 was obtained which indicated 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. The study findings were that both male and female teacher's 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: Internet, Accessibility, Usage, Secondary School, Teachers and ICTs

Introduction

The Internet is the most useful technology of modern times which helps us not only in our daily lives but also in professional lives. For educational purposes, it is widely used to gather information and to do research or add to the knowledge of various subjects. It is no doubt that in this modern era everyone prefers Google for their queries, problems or doubts. Popular search

engines like Yahoo, Google, etc. are the topmost choice of people as these offers an easy and instant reach to the vast amount of information in just a few seconds. It contains a wealth of knowledge that can be searched at any time. According to Thomas, & Amaechi, (2017) the internet has introduced improvements in technology, communication, and online entertainment. In the education sector, the internet is a very veritable tool that cannot be undermined, owing to the fact that the internet in education to the students' means that it makes them easier to research things, and relearn the content taught in the school (Thomas, & Amaechi, 2017). According to Okolije (2016), accessibility of ICT is the ability of teachers and students to possess or hire ICT materials and take advantage of the available ICT services.

Secondary school is the bridge between the primary school and Tertiary education. In the secondary schools, the internet is used by teachers as a learning resource which helps learners to acquire facts, skills or opinion to develop cognitive processes therefore its importance cannot he over emphasized. Most public secondary schools in rural areas, precisely Aba-South Local Government Area of Abia State generally lack instructional materials for teaching. According to Alibi (2004), you hardly get materials like audio visual aids, software programs, diadems, etc in the school shelves. No libraries for the teachers to use when preparing their lessons and where there is a library the books are outdated for use in this age of modern knowledge, information and technology explosion.

Empirical studies have proven the relationship between accessibility and the use of ICTs in educational (Jude & Dankaro, 2012 and Abubakar, 2016) they have stated that lack of ICT accessibility always prevent the adoption and integration of internet enabled devices in teaching and learning in Nigeria. As a result, teachers' accessibility of internet in secondary schools should be examined. The use of ICT in teaching will only be possible if there is accessibility of

ICT materials. Obviously, if teachers do not have access to ICT resources, they will not be able use ICT in teaching.

However, there are now many resource materials on the internet which teachers can use to confront the above challenges for effective teaching particularly in the areas of content, graphic instructional materials and techniques for improvisation. The internet is a worldwide computer network connecting many individual networks around the world. These individual networks can be found in military and government agencies, educational institutions, nongovernmental organizations, industrial and financial co-operations of all sizes and enterprises (Ejinkeonye & Usoroh, 2016). The public information stored in the multitude of computer networks can easily be accessed from any part of the world once you are connected to the internet.

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 Aba-South L.G.A. 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. They can also learn how to improvise instructional materials and this is what public schools teachers in Aba-South local government area lack. 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. Hence this research is to find out the internet use among public secondary school teachers in Abia State and to study the new

pedagogical opportunities that the internet offers and how they are taking advantage of it.

Teachers are however expected to teach and achieve set goals and objectives despite the challenge they face. Experts recognize this problem and have suggested that Teacher Education Institutions should ensure that teachers are well prepared to use the internet tools and provide resource materials for teaching knowing full well that teachers who are not aware of the pedagogical uses of internet will continue to face difficult challenges in teaching. The provision of resource material for teaching is the prevailing situation in public secondary schools in Aba-South local government and Abia State as a whole.

It will definitely solve the problem of teachers' unawareness for internet use as a source of teaching materials; it will solve the problem of computer literacy among teachers in secondary schools in the state and in the country at large. The study is also indeed a good instrument that will encourage government to make internet facilities accessible for secondary schools teachers in country. And lastly the study will solve the problem of inadequate resource material vis-avis teaching aids among teaching staff in our secondary schools in the states.

Purpose of the Study

The purpose of this study is to investigate internet use by teachers in public secondary schools in Abia State. Specifically, the study sought to:

  i.   Find out if the teachers in public secondary schools have access to internet facilities in Abia State.

  ii. Find out if the teachers in public secondary schools use the internet as a resource medium in Abia State

Research Questions

The following research questions were postulated to guide the research.

1   What is the level of accessibility of internet facilities to the teachers in public secondary schools in Abia State?

2   To what extent do the teachers in public secondary schools use the internet as a resource medium in Abia State?

Hypotheses

The following null hypotheses are formulated to be tested at 0.05 level of significance.

Ho: There is no significant difference between the mean scores of male and female teachers in public secondary schools in Abia State as regards to use of internet for teaching in schools.

Methods and Materials

Descriptive survey design was adopted in this study. The population of the study is two thousand and twenty (2,020) teachers which comprises of one thousand and fifteen (1,015) female and one thousand and five (1,005) male teachers. Using the stratified random sampling technique a total of two hundred and ten (210) teachers were selected from five (5) different schools. Among them are hundred and ten (110) male teachers and one hundred (100) female teachers respectively.

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 0.87 was obtained which

indicated 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. The z-test statistics at .05 level of significance was used to test the null hypothesis was accepted if the z-calculated is less than the z-critical. A null hypothesis was rejected if the z-calculated is greater than the z-critical

Results and discussion

Research Question

How accessible are internet facilities to the teachers in Aba-South local government area of Abia – State?

Table 1

Mean Ratings of the Responses to Male and Female Teachers regarding their Accessibility towards Internet Facilities in their Schools.

S/N	**Items** Statement	**Male Total Score**	**Female total score**	**Male $\overline{X}$ (n-110)**	**Female $\overline{X}$ (n-90)**	**Remarks**
1	There is no accessible of internet facilities to all the public secondary school teachers in Abia State.	292	293	2.65	3.25	Agree
2	Every secondary school teachers goes to cyber cafe to browse	225	142	2.04	1.57	Disagree
3	Internet facilities are available to all public secondary school teachers in Abia State.	251	187	2.28	2.07	Disagree

S/No	Items statement	Male Total Score	Female total score	Male $\overline{X}$	Female $\overline{X}$	Remarks
4	There is availability of internet facilities to the teachers in public secondary school in Abia State	338	269	3.07	2.98	Agree
	Grand Mean Average			2.51	2.47	Disagree

Data in table 1 showed that the respondents in items 1 and 4 are having mean 2.65 & 3.25; and 3.07 & 2.98, for both male and female respondents respectively which is above the cut-off point of 2.50, while in items 2 & 3, they have mean values (2.04, 1.57) and (2.28, 2.07) respectively for male and female respondents, which is below the cut-off point. The grand mean value of 2.51 & 2.47 for both gender of respondents indicate that they all disagree to the item statements. Meaning that there is low level of teachers' accessibility to internet facilities in public secondary schools in Abia State.

Research Question 2

To what extent do the teachers use the Internet as a resource medium in Secondary Schools in Aba-South Local Government Area.

Table 2

Mean Rating of the Responses of Male and Female Teachers on the Extent of Utilization of Internet in Secondary School in Aba-South Local Government Area.

S/No	Items statement	Male Total Score	Female total score	Male $\overline{X}$ (n-110)	Female $\overline{X}$ (n-90)	Remarks
5	Every public secondary school teachers source materials from the internet	262	187	2.38	2.07	Disagree
6	Some public secondary school teachers source teaching materials from the internet.	292	285	2.65	3.16	Agree
7	Some public secondary school teachers do not get materials from internet.	295	269	2.68	2.89	Agree

8	Every public secondary school teachers relied on internet for teaching materials.	225	177	2.04	1.96	Disagree
				2.44	2.52	Dis/Agree

Data in table 2 showed that the respondents in items 5 and 8 had mean values below 2.50 and were disagree, while items 6 and 7 were above 2.50 and were agree. The varying grand mean values of 2.44 and 2.52 reveals that male teachers rated the items low than their female counterparts with regards to the use of internet as a resource medium in Abia State.

Hypothesis

Table 3

Z-test Analysis of Significant Different between the Mean of Male and Female Teachers with regards to the use of Internet as a Resource Medium.

Gender	No. of teachers		SD	Df	z-cal	z-crit	Decision
Male	110	2.40	0.40				
Female	90	2.43	0.37	198	1.05	1.96	Rejected

Analysis of data showed that the mean scores for both male and female teachers recorded 2.40 and 2.43. However, the table further revealed that the z-cal of (1.05) is less than the z-crit of (1.96) at .05 level of significance in view of this fact, the rejection of the null hypothesis is confirmed which state that there is no significant difference in the mean of male and female teachers on the use of internet as a resource medium for teachers in secondary schools in Aba-South local government area of Abia State.

Discussion of findings

The accessibility of internet by teachers in secondary schools in Abia State was also low. The study revealed that existing school facilities were not used for the good of all, and as a result

many teachers had no access to internet to enhance their teaching patterns. This finding is in agreement with Jude & Dankaro, 2012 and Abubakar, 2016) they have stated that lack of ICT accessibility always prevent the adoption and integration of internet enabled devices in teaching and learning in Nigeria. It also affirmed the position of Thomas & Amaechi, (2017) who posits that internet is veritable tool that enhances teaching and learning.

The study found that internet usage by schools teachers was perceived low in Abia State. The study affirmed that poor funding and inadequate supply of modern facilities such as laptops and desk tops computers has an adverse effect on the academic works of teachers and students. This finding is in agreement with Sife (2013) who also found that the rate of internet usage is low in Tanzania. It also agree with Moila, & Makgato, (2014) that female teachers use ict more than their male counter parts.

The result that there was no significant difference in the opinion of male and female teachers. This result shows that their views are the same about the use of internet as a resource medium and how it can help teachers to achieve some level of teaching effectiveness in secondary schools.

Conclusion

Based on findings of this study gender is not responsible for teachers access and internet use among public secondary school teachers in Abia State.

Recommendation

1. Computer and Internet facilities should be installed in public secondary schools in Abia State to enhance teacher's effectiveness in the classroom.

2. Opportunities for training and retraining of teachers should be given to the teachers in order to encourage teacher computer appreciation and internet usage.

3.   Personal computer (PCs) like laptops or desktops with interconnectivity should be

        provided for public secondary school teachers that they can be used during teaching and

        learning process.

References

Abubakar, D (2017). Relationship Of User Education, Computer Literacy And Information And Communication Technology Accessibility And Use Of E- Resources By Postgraduate Students In Nigerian University Libraries. *Library Philosophy And Practice. Retrieved On 10th June, 2017 From* Https://Digitalcommons.Unl.Edu/Libphilprac/1555/

Asubiojo, R. O., & Ajayi, J. A. (2017). The Role Of Information And Communication Technology In Enhancing Instructional Effectiveness In Teachers' Education In Nigeria. *KIU Journal Of Social Sciences, 3(2),* 289-295.

Aworanti, O. A. (2016). Information and Communications Technology (ICT) In Nigeria Educational Assessment System - Emerging Challenges. *Universal Journal of Educational Research, 4(6),* 1351-1356.

Ejinkeonye, U. B., & Usoroh, C. I. (2016). Enhancing The Utilization Of Information Communication Technology (ICT) Among Home Economics Lecturers In South Eastern Nigeria. *Journal Of Education And Practice, 7(9),* 34-39.

Moila, O., & Makgato, M. (2014). Teachers And Learners Level Of Computer Literacy To Enhance Education In Classroom: A Case Study Of Six Public Secondary Schools In Atteridgeville Township In South Africa. *Mediterranean Journal Of Social Sciences, 5(23),* 1017-1023.

Sife, A. S, (2013). "Internet use behaviour of cybercafé users in Morogoro Municipality, Tanzania". *Annals of Library and Information Studies, 6 (1),* 41-50.

Thomas, C. G., & Amaechi, J. O. (2017). Demographic Differences in Postgraduate Students' Attitudes and Use of ICT Facilities in Rivers State University of Science and Technology, Port Harcourt. *International Journal of Scientific Research Engineering & Technology (IJSRET), 6 (1),* 53-58.