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ASSESSMENT OF COMPUTER LITERACY AMONG PUBLIC SECONDARY SCHOOL ENGLISH LANGUAGE TEACHERS IN BENIN METROPOLIS, NIGERIA

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Abstract:
Information and Communication Technology (ICT) has increasingly become part of human existence in today's contemporary society. There is no doubt that ICT has come to stay. In fact, it is obvious that man cannot do without it in this 21st century. Effectiveness in the educational system to a large extent depends on ICT. It is on the basis of this knowledge that this researcher decided to carry out an assessment of computer literacy competency of English language teachers in Benin metropolis. Three research questions guided this study. The descriptive survey was used for the study. The population for the study consisted of 302 English language teachers in Benin metropolis. A total of 151 teachers were randomly selected from the population. An instrument titled English Language Teachers' Computer Literacy Questionnaire (ELTCLQ) was used to collect data for the study. The simple percentage was used to analyse the data. Based on the analysis, findings were made, amongst which is that the level of computer literacy among secondary school English language teachers is very low. As a result of the findings, it was recommended among others, that teachers should practice the use of ICT in their day to day teaching/ learning activities.

Keywords: computer, literacy, secondary school, English language, teachers

1. Introduction

Gone are the days when the teacher was the sole possessor of knowledge. However, with the emergence of information and communication technology the teacher is no longer the sole possessor of knowledge. The advent of information and communication technology has transformed the world into a global village. Information and communication technology have become very important in everyday life of every facet of the world. For

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instance, policy makers, academics, the military and the general public make use of information and communication technology. In fact, to show how important information and communication technology is to the world of academics, in the recent lockdown of the world as a result of the coronavirus pandemic, academic conferences were held via the use of information and communication technology. Outside the academic world, seminars, conferences, meetings are held in every part of the world through information and communication technology. According to Techopedia (2019), Information and Communication Technology (ICT) can be defined as all the technology used to handle telecommunications, broadcast media, intelligent building management systems, audiovisuals processing and transmission systems and network-based control and monitoring functions. According to Ajayi (2009) ICT can be defined as a technological means of collecting (inputting/gathering), collating (processing/analyzing) and conveying (computing/transferring) information via technology. Still on the definition of ICT, it was defined by TechTerms.com as technologies that provide information through telecommunications. These include the internet, wireless networks, cell phones and other communication mediums. From the foregoing, it is clear that ICT is a medium for communication. For teachers to effectively implement the English Language curriculum they need a medium of communication. It is on this ground that Salami and Enijuni (2016) described ICT as interaction between the user and the data. To these scholars therefore, information and communication technology is an umbrella term that includes a communicative device for teaching and learning. Such devices could be computer systems, communication devices, telecommunication, telephones, satellites, telex, facsimile, internet, email, fax, video text and document delivery, electronic copiers, radio, television etc.

Recently, precisely in 2020, as a result of the coronavirus, pupils and students commenced learning online in some countries around the world. To buttress this point, Bhatkhande (2020) declared in his report that online learning giant BYJU'S has seen nearly 6 million new students joining its learning application during the month of March 2020 alone. Thus, the same reporter declared as school remain shut, e-learning platforms see unprecedented surge in demand with many students and schools moving to online learning. It is important to note that online learning is done by means of information and communication technology. This is a pointer to the fact that that information and communication technology is very fundamental to teaching and learning. Therefore, the effective implementation of any curriculum cannot be divorced from information and communication technology. According to Oyelakan (2016) information and communication technology in education has revolutionized the way of researching, teaching and learning. According to Yusuf (2009) in Oyelekan (2016) the potentials of information and communication technology (ICT) to improve the quality of instruction, transform the school, improve the school management, increase access to education and improve teacher education among others, have been emphasized in several studies (Kirschner and Woperies, 2003; Kazu & Yavulzalp, 2008).

Despite the seemingly importance of information and communication technology (ICT) studies have shown that some teachers are still not inclined to the use of information and communication Technology. For instance, Ibhafidon, Aguele and Alufohai (2012) in their study on the assessment of teachers' computer literacy in Edo state revealed that most teachers in the primary schools were not computer literate. The study found that only 37.8% of the teachers were computer literate while the other 62.2% were not computer literate. In the study carried out in Ibadan south west L.G.A of Oyo state-Nigeria by Fakeye (2010), it was revealed that the level of knowledge of ICT possessed by English language teachers was poor and as such they rarely used ICT to teach English language. The study also showed that male teachers demonstrated a higher level of knowledge than their female counterparts. Meeliseen (2005), also opined that girls seem to have lower self-efficiency compared to boys, especially in more complex computer tasks. The study of Bhebbe and Maphosa (2016) carried out in South Africa on teachers' computer literacy and utilization of ICTs in teaching and learning at primary schools, it was concluded that there is low level of utilization of ICTs in teaching and learning at primary schools. An interesting study was carried out on teacher gender and ICT by Gerbhardt, Thomas, Ainley and Hilman in (2019). In the study the researchers did an analysis of the reports done by the International Computer and Information Literacy Study (ICILS) 2013 teacher questionnaire which provided a rich resource of data on teacher characteristics in relation to computer information literacy and technology by gender. Analyses of female and male teachers' experiences, dispositions, and uses of ICT indicated that any differences are small and inconsistent across countries. In fact, their findings revealed that females and male teachers' in the secondary schools do not appear to differ greatly in the extent of their pedagogical use of ICT. In the study of Correos (2014), which was carried out in five municipalities of Surigan del sur division of Philippine, it was declared that English Language teachers were aware and competent in the use of most information and communication Technology resources, and skills. Thus, they posited that the teachers' ICT literacy was moderate. In the area of teachers' use of ICT, Nwosu, Sharfe and Nurzatul (2018) carried out a study in Aba. In the study, 234 teachers were selected from 20 secondary schools. The study found that the level of teachers' ICT acceptance and use in Aba North district was low. According to Stephen (2013), secondary school teachers in Akwa Ibom state, Nigeria did not use ICT in teaching because they were not competent in the use of ICT.

However, the study of Enu, Nkum, Ninsen and Diabor (2018) revealed that teachers' ICT skills were at the moderate level. The study also revealed that teachers use ICT for general and personal reasons such as chatting and communication with friends on WhatsApp, Facebook and other social pleasures instead of applying it to classroom teaching. Going by the several literatures the researcher in this study intends to assess teachers' literacy level and utilization of Information and Communication Technology in Benin metropolis.

2. Research Questions

The following research questions guided the study:

1) What is the level of computer literacy among secondary school English language teachers in Benin Metropolis?
2) What is the level of computer usage among secondary school English language teachers in Benin Metropolis?
3) What is the difference in the level of computer literacy between male and female secondary school English language teachers in Benin Metropolis?

2.1 Hypothesis

One hypothesis was formulated for this study:

H_{01}: There is no significant difference in the level of computer literacy between male and female secondary school English language teachers in Benin metropolis.

3. Research Method

The study adopted a descriptive survey research. The population comprised 302 English language teachers in public junior and secondary schools in Benin Metropolis. Sample size of 151 English language teachers was randomly selected from the total population.

The instrument used to collect data for the study was a questionnaire titled English Language Teachers' Computer Literacy Questionnaire (ELTCLQ). The questionnaire which was developed by the researcher consists of three sections. Section A consists of 4 items which were used to collect the demographic data of the teachers. Section B was used to ascertain the level of teachers' computer literacy, in this section the five-point Likert scale was used to indicate the level of computer literacy. Section consists of 8 items. The eight items were used to ascertain the general level of computer use in teaching and learning of English language. This section applied the four-point Likert scale.

The instrument was validated by two experts. One from the department of Computer Science and one from the department of Curriculum and Instruction, both from the Ambrose Alli University, Ekpoma. The experts validated the instruments based on the appropriateness of each item. Appropriate suggestions were made to improve the quality of the questionnaire. The instrument had a construct validity of 0.74. The test retest reliability method was carried out two weeks after the first test and the test retest on teachers, English Language Teachers' Computer Literacy to verify the computer literacy or computer level amongst teachers?

ELTCLQ yielded a reliability of 0.74, which is significant.

4. Results

Research Question 1: What is the level of computer literacy among secondary school English language teachers in Benin metropolis?

Table 1: Level of computer literacy among secondary school English language teachers in Benin metropolis

S/N	General use of computer	Expected Average	Observed Average	Remark
1	Basic computer competencies, basic computer functions	5.00	5.06	High
2	Operating system (operating windows etc.) without help	5.00	5.66	High
3	Software applications- MS-Office, MS Word, Excel, internet and email, Power point, database and data entry, graphics and drawing, desktop publishing, video production and editing	5.00	2.62	Low
4	Use of internet for teaching and learning English language materials	5.00	3.56	Low
5	Using and producing video for classroom presentation	5.00	1.96	Low
6	File management for teachers, for creating folders, moving files, renaming files, for classroom assignments and documents.	5.00	5.96	High
7	Use of ICT for drill and practice	5.00	2.25	Low
8	Download and print documents	5.00	4.26	Low
	xn	5.00	3.91	Low

Table 1 dealt with the level of computer literacy among secondary school English language teachers in Benin metropolis. The result of the table revealed that the English language teachers only reported high levels of basic computer skills and operating system. This clearly indicates that the level of computer literacy among secondary school English language teachers is low as their average observed mean score of 3.59 is low as against the benchmark average of 5.0

Research Question 2: What is the level of computer usage among secondary school English language teachers in Benin metropolis?

The result in Table 2 shows that English language teachers only reported a high use of ICT for accessing the internet in order to gather information on lessons. From the table, it can also be observed that the average observed mean score of 2.378 is low as against the benchmark of 3.0. It can therefore be concluded that the level of computer usage among secondary school English language teachers in the Benin metropolis is low.

Table 2: Level of computer usage among secondary school English language teachers in Benin metropolis

S/N	General use of computer	Expected Average	Observed Average	Remark
1	Use of ICT for the preparation of lesson plans	3.00	2.80	Low
2	Use online communication tools such as e-mail to facilitate communication between teachers and students/teacher and teacher	3.00	1.00	Low
3	Accessing the internet in order to find and gather information on lesson	3.00	3.36	High
4	Using overhead projector in teaching and learning of English language	3.00	1.26	Low
5	Use of online database to access English language-based content online	3.00	2.28	Low
6	Using computers for enrichment activities in the class (videos and simulations, models etc.)	3.00	3.12	High
7	Recording assessments marks and grades	3.00	2.22	Low
8	Use of Microsoft word package on the computer	3.00	2.98	Low
	xn	3.00	2.378	Low

Research Question 3: What is the difference in the level of computer literacy between male and female secondary school English language teachers in the Benin metropolis?

Table 3: Level of computer literacy between male and female secondary school English language teachers in the Benin metropolis

	Level of expertise	Gender									
		Male					Female				
		Very good	Good	Average	Weak	Poor	Very good	Good	Average	Weak	Poor
1	Basic computer competency	41 (58%)	15 (22%)	0	14 (20%)	0	13 (16%)	27 (33%)	41 (51%)	0	0
2	Operating systems	41 (58%)	15 (22%)	0	14 (20%)	0	13 (16%)	27 (33%)	41 (51%)	0	0
3	Software applications	0	0	15 (22%)	41 (58%)	14 (20%)	0	13 (16%)	13 (16%)	41 (51%)	14 (17%)
4	Browse the internet for teaching and learning of English language materials	0	0	14 (20%)	41 (58%)	15 (22%)	0	13 (16%)	13 (16%)	41 (51%)	14 (17%)
5	Using ICT for producing audio/video presentation in the classroom	15 (22%)	0	0	0	55 (78%)	0	0	0	41 (51%)	40 (49%)
6	File management	0	0	0	15 (22%)	55 (78%)	0	28 (35%)	40 (49%)	13 (16%)	0
7	Use of ICT for drill and practice	0	15 (22%)	0	0	55 (78%)	0	0	40 (49%)	13 (16%)	28 (35%)
8	Use of internet	0	0	29 (42%)	41 (58%)	0	0	28 (35%)	40 (49%)	0	13 (16%)

The result on Table 3 found that there is a variation in the level of computer competency between female and male English language teachers in Benin metropolis. For instance, in the area of basic computer competencies and operating systems, 58% of the male teachers performed very good, and 22% performed good. On the other hand, 41% of males and 51% of females performed very good, good and average in the same basic computer competencies and operating systems. In software application only 22% of the male reported an average level of competency while the remaining 78% were poor. One the part of the females, 33% were either good or average while the remaining 67% performed at either the level of poor or weak competency. In the area of browsing the internet for teaching and learning of English language materials, 20% of the male teachers recorded an average level of competency while 80% reported that they were either weak or poor. For the females, 32% were either good or average while the remaining 68% were either weak or poor. In the area of using ICT for producing audio/video presentations in the classroom, 22% of the male teachers performed very well while the remaining 78% did very poorly. On the part of the females, 100% performed either weak or poor. With respect to file management 78% of the males were in average performance competency while the remaining 22% of the males were weak. For the females, 84% of them reported either good or average while the remaining 16% were at the weak level. On the use of ICT for drill and practice in English language, 22% of the male teachers reported good while the remaining 78% reported poor. Still on the same task, 49% of the female teachers report average while the remaining 51% of them reported either weak or poor. On the use of the internet for teaching/learning by the English language teachers, 42% of the male teachers reported an average level of competency while the remaining 58% were weak. On the other hand, 84% of the female teachers reported as either good or average while the remaining 16% reported as poor. Going by these analyses the researcher concluded that there is no clear difference in the level of computer literacy between male and female English language teachers in the Benin metropolis. Both male and female English language teachers are competent in their different areas of expertise.

Table 4: t-test analysis of the level of computer literacy between male and female secondary school English language teachers in Benin metropolis

Sex of Teachers	N	Mean	SD	df	t-cal	Sig. Value	Remark
Male	70	2.7329	.82548	149	.458	.647	Not Significant
Female	81	2.7822	.53745				

Table 4 shows the t-test analysis of the level of computer literacy between male and female secondary English language teachers in Benin metropolis. The calculated value of .458 was significant at 0.05 level of significance. Therefore, the null hypothesis was retained. The conclusion therefore is that there is no significant difference in the level of computer literacy between male and female secondary school English language teachers in Benin metropolis.

5. Discussion

The study revealed that the level of computer literacy among secondary school English language teachers is very low. The findings agree with Fakeye (2010) and Nurzatu (2018) but are contrary to Correos (2014) who declared that English language teachers are aware and competent in the use of ICT resources. The result of this study is also contrary to the findings of Enu, Nkum, Ninsin and Diabor (2018) who declared that teachers' ICT skills were at the moderate level.

The data analysis on the level of computer usage among English language teachers revealed that the level of computer usage was quite low. This shows that teachers do not adequately make use of ICT in the teaching and learning process. The problem of lack of competence contributes to this problem. The findings agree with Rhebbe and Maphosa (2016) and Stephen (2013). It is, however, contrary to the findings of Correos (2014) who declared that English language teachers were competent in the use of most Information technology resources.

The study also found that there is no difference in the level of computer literacy between male and female secondary school English language teachers in Benin metropolis. Therefore, it can be said that male and female teachers are the same in terms of computer literacy. The findings agree with Jegede (2007) who found no significant gender influence in the teachers' computer literacy. Still in support of the finding of this study is the study of Gebhardt, Thomas, Ainley and Hilman (2019) who declared explicitly that female and male teachers in secondary schools do not appear to differ greatly in the extent of their pedagogical use of ICT. On the contrary however, Kong, Chai, Tan, Hasbee and Ting (2014) declared that male teachers have a significantly higher computer self-efficacy than their female counterparts. On the other hand, another study contrary to the finding of this study declared that female teachers applied ICT more than male teachers (Adams, 2008). In line with the findings of this study, this researcher wishes to state that the non-difference in the computer competency of both male and female English language teachers could be as a result of the fact that most of the teachers are digital immigrants who are struggling with acquiring the skills of computer competency.

5.1 Recommendations

Having carried out a thorough assessment of computer literacy among secondary school teachers in English language, the following suggestions are made.

1) Teachers should as a matter of urgency practice the use of ICT in their day to day teaching/learning activities.
2) Teachers should realize that ICT has come to stay and therefore embrace its use.
3) Teachers that are not literate in ICT should enroll in computer or ICT training outlets closest to them on a part-time basis.
4) The government should make computer literacy a prerequisite to employing English language teachers.

5) The Ministry of Education in conjunction with the state government should carry out in-service training from time to time on teachers.
6) The Ministry of education should visit schools from time to time to find out how teachers are applying the use of ICT in their teaching/learning activities.
7) Since most teachers in the public school are digital immigrants(i.e. teachers born before the year 2000) they should employ the services of digital natives (children born from the year 2000 and beyond) to teach learn the use of ICT.

About the Author

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