ICT Literacy Level Assessment Among Junior Secondary School Students in Gbonyin Local Government Area of Ekiti State

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Abstract: The paper examined Information and Communication Technology (ICT) as a tool that has taken over the global economy. Most things if not all require ICT to be performed. The education sector is not left out of this as Information and Communication Technology (ICT) has improved the method of teaching and learning; it has made teaching and learning less difficult, interesting, and interactive. This advancement in technology has equally bridged the digital divide between information rich and poor society. This study examined the level of ICT literacy among the Junior Secondary School Students in Gbonyin Local Government Area in Ekiti State using descriptive survey design. Questionnaires were used as instrument for data collection on JSS 1, 2 and 3 students from twenty-eight ICT teachers. Five research questions were used to guide the work and it was found that computer facilities and accessories were not available in most schools and without competent and qualified teachers to handle students ICT literacy needs. It was recommended that there should be a rethink on the part of proprietors to employ, train and retrain ICT teachers to ensure ICT literacy among the local government JSS students.

***Key words*: Assessment, ICT, ICT Literacy Level, Junior Secondary School Students.**

I. INTRODUCTION

According to Adomi and Kpangban (2010) and Al-Ansi et al., (2019) it is evident that ICT has the potentials of increasing relevance and quality of education in developing countries and the field of education has been affected by ICT, which have indisputably affected teaching, learning, and research. Scholars have proven through their works the many benefits of ICT to the quality of education (Yusuf, 2005). Also, computer literacy is the ability to use computers to perform a variety of tasks and is becoming fundamental to the learning process (Osuji, 2009 and Al-Ansi et al., 2021). ICT and computer literacy is the ability to handle varieties of computer applications for various purposes. For instance, Albrini (2004) and Garad et al., (2021) considers computer literacy as educators' belief about their computer knowledge and skills.

Due to the fact that state governments in Nigeria needed to fully implement the National Policy on Computer Education in Nigeria's policy, they introduced computer literacy education across secondary schools in Nigeria in 1997 (Bada et al., 2009, and Adomi & Kpangban, 2010). The reasons for this are: to introduce the use of computer in teaching, to make the present generation appreciate the use of computer, to make both students and teachers appreciate the benefits of computer to the education sector, and to expose both students and teachers to an unlimited body of knowledge (Dawes, 2001 and Al Ansi & Al-Ansi, 2020). Similarly, in the Federal Government of Nigeria's bid to fully implement the use of computer across schools, the National Policy on Information Technology was introduced in 2001 to relate the message of ICT literacy to secondary schools in the rural areas such as in Gbonyin Local Government Area in Ekiti State. Hence, with such policies in place, steps have been taken to improve the use of Information and Communication Technology (ICT) in both teaching and learning from the primary to the tertiary institutions.

However, the situation in junior secondary schools across the country has not really improved as we still witness cases of schools without computer laboratories and those without competent teachers amidst other factors. The ICT literacy education is really lacking across junior secondary schools, though some private schools are trying to provide few ICT facilities for learning, and these are related to the submissions of Rogers and Shoemaker (1971). In a study carried out by Onwumere (2012) it was revealed that the Nigeria National Computer Policy of 1987 is currently obtainable across secondary schools in Nigeria and more practiced in Federal Unity with few private schools. These schools are located in the urban areas which means that more schools in the urban areas practice ICT literacy education compared to schools in the rural areas. Furthermore, the study carried out by Kingsley and Otabor, (2016) to determine the level of ICT literacy revealed that private secondary schools have access to and use computers in teaching and learning compared to public schools. Bearing the current state of ICT literacy in the urban areas, the need to study the level of ICT literacy among junior secondary school in rural areas generate many questions like: Is computer literacy taught in rural areas? Is computer science taught in Junior Secondary Schools? Are schools in the rural areas implementing the National Policy on Education?

Research Questions

The following research questions were answered in the study:

1. Are there competent teachers of ICT facilities in Gbonyin Local Government JSS?
2. What are the factors that affect ICT literacy among Junior Secondary Schools in Gbonyin Local Government Ekiti State?
3. What are the ways of improving ICT literacy among Junior Secondary Schools in Gbonyin Local Government?
4. What is the extent of ICT literacy among Junior Secondary Schools in Gbonyin Local Government?
5. What are the ways of improving ICT literacy in Ekiti State?

II. METHODOLOGY

*Research Design***:** The research was a descriptive survey design. The target population were all Junior Secondary School Students in Gbonyin local government Ekiti State.

*Population and Selection of Respondents***:** Simple random sampling technique were used to select 28 ICT education teachers from the 14 secondary schools in the area. Also, structured questionnaire was used and divided into sections in line with the research questions for the study.

*Research Instruments***:** The instrument for this study was face validated by experts in the field of measurement and evaluation. Their recommendations and corrections were taken care of in the instrument. The approved instrument was trial tested, and the pretest result shows a Cronbach Alpha score of 0.07 showing that shows the instrument is reliable and can measure the objectives effectively.

*Analysis of Data***:** The questionnaire was a four-point rating scale (Likert scale), starting from strongly agreed (SA), agreed (A), disagreed (d), and strongly disagreed (SD). The score rating method was used to analyse the primary sources of data based on the 2.5 acceptance region format.

III. RESULTS

Table 1. Demographic Information of the Respondents

Gender	Frequency	%	Valid %	Cumulative %
Male	14	50.0	50.0	50.0
Female	14	50.0	50.0	100.0
Total	28	100.0	100.0	
Age				
26-40years	16	57.1	57.1	57.1
41-60years	12	42.9	42.9	100.0
Total	28	100.0	100.0	
Teachers ICT Literacy				
Yes	28	100.0	100.0	100.0
Total	28	100.0	100.0	

From the results shown in table 1, it was revealed that the respondents for this study were equally distributed between gender, as male represented 50 percent of the respondents, and female 50 percent of the respondent. This was to ensure gender sensitivity in the concluding responses as there ought to be divergent views of both genders. Also, based on responses in table 1, it was revealed that about 57.1 percent of the respondents for this study were between the ages of 26 and 40 years, while about 43 percent were between the ages of 41 and 60 years. All the respondents for this study were ICT literacy education teachers in Gbonyin Local Government, Ekiti State. This means that teachers in Gbonyin Local Government used ICT as medium of instruction during teaching and learning process.

*Research Question one***:** How competent are teachers of ICT literacy education in Gbonyin Local Government Area JSS?

Table 2. Teachers' ICT literacy in Gbonyin Local Government Area

S/N	Statement	N	Mean	Std. Deviation
1	teachers of ICT literacy are very competent	28	2.5714	.50395
2	Most teachers of ICT literacy have educational qualification	28	3.5714	.50395
3	Teachers of ICT literacy here are all computer literate	28	2.5429	.35635
	Valid N (listwise)	28		

From the responses on the table 2 and based on the mean score of each of the responses, it was revealed that teachers used ICT during teaching and learning process and were competent with relevant educational qualifications. This was based on the fact that the mean scores for all the items in the questions were all above 2.5.

*Research Question Two***:** What are the factors affecting ICT literacy among junior secondary schools in Gbonyin LGA, Ekiti State?

Table 3. Factors affecting ICT literacy competency among junior secondary schools in Gbonyin LGA

S/N	Statement	N	Mean	Std. Deviation
1	Lack of qualified teachers	28	1.5357	.50787
2	lack of facilities	28	2.5357	.18898
3	lack of instructional materials	28	2.9643	.18898
4	poor funding	28	3.0357	.99934
5	lack of interest on the part of the students	28	2.5032	.74333
6	Junior secondary schools in Gbonyin are not well equipped	28	2.8343	.32443
	Valid N (listwise)	28		

From table 3, it could be inferred from the respondents that some of the factors affecting computer literacy among junior secondary schools in Gbonyin LGA include: lack of facilities; lack of instructional materials; poor funding and lack of interest on the path of the students. This means that junior secondary schools in Gbonyin LGA are not well equipped.

*Research Question Three***:** What are the ways to improve ICT literacy among junior secondary schools in Gbonyin LGA?

Table 4. The ways to improve ICT literacy among junior secondary schools in Gbonyin LGA

S/N	Statement	N	Mean	Std. Deviation
1	by provision of ICT facilities to the schools for practices	28	2.5357	.50787
2	making the learning environment conducive	28	2.6357	.54486
3	training and re-training of ICT literacy education teachers	28	2.1643	.18898
4	provision of instructional material	28	3.0357	.99934
5	proper of funding of education by the government	28	2.6323	.54434
6	making all the exams in the school ICT based	28	2.8324	.43222\s
	Valid N (listwise)	28		

From the report on table 4, it was revealed that some of the ways to improve ICT literacy among junior secondary school students in Gbonyin LGA include provision of ICT facilities to the schools for student practices; making the learning environment conducive for learning; provision of instructional material; proper funding of education by the government and by conducting all the examinations in secondary schools through computer based.

*Research Question Four***:** What is the extent of ICT literacy education among junior secondary schools in Gbonyin LGA?

Table 5. Responses of the respondents on the extent of ICT literacy education of the junior secondary school students in Gbonyin LGA

S/N	Statement	N	Mean	Std. Deviation
1	Most junior secondary school students are literate in ICT	28	1.5357	.10787
2	Most junior secondary schools' students operate and own ICT facilities privately	28	2.0157	.18898
3	There is no relationship between ICT literacy and students' academic performance	28	2.9643	.65898
	Valid N (listwise)	28		

The table 5 revealed the responses of the respondents on the extent of ICT literacy level of junior secondary school students in Gbonyin LGA which indicated that the generality of the respondents disagreed with the assertion that most junior secondary school students were ICT literate and that most junior secondary school students operate and own ICT facilities. They however, agreed that there was no relationship between ICT literacy and students' academic performance with a mean score of 2.9.

IV. DISCUSSIONS

This study on the assessment of ICT literacy education level among junior secondary school students in Gbonyin local government Ekiti State was set to address five objectives and the following findings were made. For instance, it was shown that teachers of ICT literacy are competent. Also, the result shows that they have the relevant educational qualifications to teach and that they are all ICT literate. Factors affecting ICT literacy among junior secondary schools in the area include and not limited to lack of facilities, lack of instructional materials, poor funding, and lack of interest on the path of the students. Furthermore, the respondents disagreed with the assertion that most junior secondary school students are ICT literate and that most junior secondary school students operate and own ICT facilities.

V. CONCLUSIONS

The findings of this study suggest further to show the need to look into ICT literacy education in secondary schools, especially junior secondary schools in rural and semi-urban areas of Ekiti State. Considering the ICT dominated society we live in, there is need for every individual to be ICT literate. Hence, much needs to be done to improve the ICT literacy education of students in Gbonyin local government area and Nigeria as a whole.

VI. RECOMMENDATIONS

a) Proprietors of schools especially government should provide schools with enough ICT facilities to aid the teaching of ICT literacy education. Theory should be matched with practice; schools should have ICT laboratories where students will be made to see, touch and practice what has been taught in the classroom.

b) Conducive learning environment should be provided for schools in Gbonyin LGA, facilities like electricity to power the ICT facilities should be on stand-by mode, internet facilities should be available at low cost to encourage research by both students and teachers.

c) That test and end of term examinations in junior secondary schools should be 'ICT based'. The government can pass this into law, as this will help increase the level of ICT literacy education among students in Ekiti State and Nigeria as a whole.

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