Examining The Role of Information and Communication Technology (ICT) In Enhancing Language Learning and Education: A Critical Analysis

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Abstract- *This study examined the role of Information and Communication Technology (ICT) in enhancing language learning and education in secondary schools in Ihitte/Uboma Local Government Area of Imo State. The researcher posed two research questions to guide the study. The study design was descriptive survey design. The sample of the study was 400 students from senior secondary schools in Ihitte/Uboma LGA. Two instruments were used in data collection namely: Availability of ICT Facilities Rating Scales (AICTRS) and PROFOMA Achievement Record for SSII Students (PARS). The instruments were validated by experts in the Language Education Department of Imo State University through a pilot study using Pearson Product Moment Correlation Statistics. A reliability coefficient of 0.77 was assigned to AICTRS. The PROFOMA was certified by school authorities in the selected senior secondary schools. The research questions were answered by adopting descriptive statistics which implied calculating the pooled mean and standard deviations. The findings of the study was that there were no sufficient ICT facilities in secondary schools in Ihitte/Uboma Local Government Area of Imo State and that the academic performance of the students may improve if ICT facilities are used in the teaching and learning of language subjects as English language. The implication of the findings is that massive failures recorded in West African Senior School Certificate Examinations among candidates in English Language could have been as a result of the absence of the use of ICT facilities in the learning process. Based on the findings and implications of the study, the researcher recommended that government should supply sufficient Information and Communication Technology materials to secondary schools in Ihitte/Uboma Local Government Area of Imo State.*

Indexed Terms- English, Information, Communication, Technology, Learning, Education, Role.

I. INTRODUCTION

Enhancement and development in our educational system today could be attributed to the fact that information and communication technology has been a vital force in our national educational policies. The integration of ICT at the various levels of learning in Nigeria's educational system and its widespread application call for necessary commendations. The implementation of the use of Information and Communication Technology especially at the secondary and tertiary institutions desires regular review to dictate pitfalls that may lower outcomes objectively assessed as goals. Importantly, education is globally recognized as one of the fields that require proper equipment. The advancement of Information and Communication Technology has caught the attention of stakeholders in education. It is considered as an effective tool for teaching and learning and is better positioned to tackle the challenges of learning in

the 21st century than the traditional teaching method (Bibire and Akinboboye, 2015).

The usefulness of Information Communication Technology may include improving the attitude of secondary school students towards language education. ICT is an electronic or computerized device, assisted by humans and interactive materials that can be used for a wide range of teaching and learning. It is seen as a combination of three terms. Information that can be communicated and understood and technology is the process of using scientific materials and human resources in order to meet human needs or purpose.

ICT devices include: internet, cellular and digital phone, MPs, Ipads, powerful personal computers, social networking and more (Ajileye and Nwoga, 2013). The significance of ICT includes also, facilitating independent study and teamwork; enhancing inspection and supervision in task engagements; facilitating effective teaching and learning. According to Suleman; Yanusa, and Jacob in Bibire (2015), ICT is an instrument for accomplishing one's goals efficiently and effectively.

The National Policy on Education (2004) in accepting education as an instrument of change has advocated setting up educational resource centres where emphasis is laid on audio-visual aids. Audio-visual development centres were widely solicited by the Federal Ministry of Education for secondary schools. It therefore shows that in 21st century Pedagogy, a teaching plan is incomplete without showing comprehensively: the audio-visual aid to be used and followership of students in relation to motor activities of sight, touch and evaluation. ICT aid can serve as a window to environments that students may never have the opportunity to visit (Hussainu and Muhammed, 2022). Through the internet, a spotlight of foreign cultures may be harnessed by learners. A moment in history, a science concept and intellectual exploration may be embarked on by students. Howard Gardner, an educational psychologist, recognizes visual experience as the most common effective learning style.

Instructional television is an emerging instructional medium adopted in developed nations for educational purposes. The enormous presence of ICT facilities in western countries is because of its relevance in advancing knowledge among students. In the hands of a good instructor, ICT facilitates improves cognitive skills and language proficiency.

Language proficiency is very important in instructional pedagogy. Students tend to encounter learning difficulties in language education as a result of several factors. These factors include the way the language is taught (Chukwuka, 2022); use of two languages i.e. mother tongue in the lower classes of primary schools and English Language as pupils climb the ladder (Basic IV upwards); poor grasp of the language of instruction in Nigeria- English Language. Another problem as identified by Salami in Clifford (2010) is the use of translation method in teaching. A low level of proficiency in the language of instruction would impact ordinarily the performance of students in other subjects. Proficiency and competence in the use of language promotes apt understanding of instructions given, encourages practice and more and facilitates motivation. Mastery or competence in reading and writing, phonetics, vocabulary, syntax and grammar are good indicators of proper usage and development of a particular language of instruction example, English Language.

In the Nigerian educational system, almost all the areas of English Language which is the officially adopted language of instruction in secondary schools present difficulties to students. Performance in Phonetics, i.e. the oral aspect is very poor. It is fairly easy in Nigeria to identify the ethnic origin of a student by the way he/she vocalizes English words. In the Nigeria context, English Language is spoken via the sounds of the mother tongue. Oluwole in Gurjiya (2019) reported that 75 percent of Yoruba students admitted that their mother tongue hindered their learning of English Language. The students were of the opinion that their competence in English Language could be improved if good teaching methods, such as the use of ICT (television, radio) were adopted. The absence of ICT facilities in secondary schools for use in teaching languages may stand as an indictment of teachers and the educational authorities.

It is common among Izon students who have difficulties in vocalizing the letter "J" as in "John" or "Just" to pronounce "John" as "Zohn" and "Suleja" as "Suleza". This is an inhibitory transfer of learning problem, where a previous learning creates difficulties

for subsequent learning (Clifford, 2010). It is similar to Urhobo students that have difficulties in pronouncing letter "L". They usually substitute 'n" for "L" to the level that "London" is pronounced "Nondon". Igbos in Anambra have similar problems in pronunciation where "Lagos" is pronounced "Regos" etcetera. Outside Nigeria, the Hindus of India substitute "V" for "W" so that "When" is pronounced "Ven" (Wikipedia, 2023). How then could these challenges in learning language be curbed or completely eradicated?

Hassana, Umar and Auwal (2019) advocated the help of multiplicity of professionals (multi-disciplinary approach), such as making use of assistive technology: word prediction, speech-to-text and text-to-speech software. It is important therefore to adapt the appropriate instructional materials and technology to meet language students' unique needs in language education. Indiana Department of Education (2017) revealed that using visuals, stories and hands-on activities will allow a better understanding of grammar and phonics challenges by positioning students for an in-depth understanding of the concept and context of discussion

Rote teaching has been discouraged in language classes, rather technology such as speech to-text and digital manipulatives come in handy. Onukwufor (2016) suggested the use of recorded lectures through handsets/cellular phones, which will make learning easier and practice more efficient. In European countries such as Poland and Germany where English Language is a second language, language laboratories furnished with modern technological facilities are practically in place. The effect is that a polish or a German studying English in his country acquires proficiency similar to the native Englishman. A greater percentage of the language teachers in Nigeria, according to Clifford (2010), have never been exposed to a language laboratory. A vicious circle thus obtains which presents little or no proficiency on the part of the language teacher, thus rendering students underachievers in the particular language.

Educated by the above discourse, would the adoption of modern Information and Communication Technology (ICT) enhance language learning and education among secondary school students in Imo State? To what extent are language laboratories available for use in secondary schools in Imo State?

II. PURPOSE OF THE STUDY

The purpose of the study is to determine the place of Information and Communication Technology in enhancing language learning and education.

Specifically, the study seeks to:

1. Ascertain the extent of language laboratories availability and use in secondary school

2. Determine if the adoption of ICT facilities will enhance achievement

Research Questions

1. To what extent are language laboratories available to use in secondary schools?

2. Would the adoption of ICT facilities in teaching language enhance achievement of students in English Language in secondary schools?

III. METHODOLOGY

The study adopted a descriptive survey design. The sample of the study was (400) four hundred secondary school students from eleven Senior Secondary Schools in Ihitte/Uboma Local Government Area of Imo State. Multistage simple random sampling was adopted in selecting the sample size. The instruments for this study were: Availability of ICT facilities Rating Scale (AICTRS); PROFOMA Achievement Record of SSII Students (PARS) in English Language for an academic year. The instruments had two sections; sections A contained demographic data of the respondents such as gender, parents socio-economic status and class. Section B contained questions on availability of ICT facilities in Senior Secondary Schools in Ihitte/Uboma LGA and the nature of the facilities if available. The instruments were scored on a four point scale of Strongly Agree = 4; Agree = 3; Disagree = 2; and Strongly Disagree = 1. The instruments were subjected to pilot testing of reliability and it was found to have a reliability index of 0.77. Pearson Product Moment Correlation Statistical tool was used for the pilot test. 2.5 points and above were accepted as mark of availability and below showed paucity of ICT materials. Upon the permission of school authorities, the instruments were administered by the researcher with the assistance of two trained teachers who

volunteered. Mean and standard deviation were used to answer the research questions.

Research Question One: To what extent are language laboratories available for use in Senior Secondary Schools in Ihitte/Uboma Local Government Area?

Table 1: Descriptive analysis on the availability and use of ICT facilities

S/N	Item Question	N	X̄	S.D
1	Computers in my school are enough for students	400	2.47	1.03
2	I have opportunity of using power point facilities during classroom presentation	400	2.01	1.04
3	We have enough projectors in our laboratory	400	2.07	1.07
4	I use my smart phone to record lectures for practice at home	400	2.42	1.26
5	We use electronic materials during language classes	400	2.31	1.14
6	We have language laboratory in my school	400	2.00	1.03
7	Electronic printers are available in my school	400	2.04	1.06
8	We study language subjects in our school laboratory	400	2.21	1.13
9	We have grounded language teachers	400	2.39	1.17
10	We are given assignments that will require the use of smart phones at home	400	2.19	1.09

	Pooled mean & Std. Dev.		2.211	

In table 1, none of the ten item questions had a mean (X) that was up to 2.5 or above. This suggests the non-availability of Information and Communication Technology facilities in secondary schools in Ihitte/Uboma Local Government Area. Availability and usage were completely given negative responses. Students responded that they had no opportunity of using power point; projectors were not adequately available, most students had no smart phone to record lectures, there were no language laboratories, electronic printers were absent and rote method of teaching was adopted in teaching language subjects in secondary schools in Ihitte/Uboma Local Government Area of Imo State. The standard deviation represented an even distribution of responses from students. Hence, virtually all students had similar opinion of the situation of ICT facilities in secondary schools in Ihitte/Uboma LGA.

Research Question Two: Would the adoption of ICT facilities in teaching language subjects enhance achievement of students in English Language in secondary schools in Ihitte/Uboma Local Government Area?

Table 2: Descriptive analysis on the impact of ICT facilities in enhancing English Language achievement of secondary school students in Ihitte/Uboma Local Government Area.

S/N	Item Questions	N	X̄	S.D
1	I will do better in English Language if I have opportunity of recording teachers and practicing at home.	400	2.63	1.04
2	I have problems in oral English because I lack facilities to record my teacher's text and rehearse at home.	400	2.81	1.12

3	Having access to websites where I can practice English language comprehension privately will improve my scores.	400	2.94	1.18
4	I will improve my proficiency in grammar with power point presentation.	400	2.52	1.40
5	Listening to good speakers through internet websites will improve my understanding rapidly.	400	2.71	1.34
6	We have poorly motivated English language teachers.	400	2.60	1.20
7	I score below the average in English language assessment termly.	400	2.54	1.31
8	The best student in English Language has access to computers and smartphones.	400	2.70	1.32
9	Students will improve greatly with well-equipped English language laboratory.	400	2.61	1.37
10	Modern English language learning requires ICT facilities immensely.	400	2.51	1.22
	Pooled mean & Std. Dev.		2.66	

In Table 2, the respondents agreed that their achievement in English language will greatly improve if Information and Communication Technology facilities are made available to them. Most students confessed to not having smartphones to embark on private study at home. Many longed for recording aids to enable them record their teachers' lessons at home for better understanding. Students who happen to do well in English language assessment text had access to personal ICT aids. The pooled mean represented a positive response suggesting that non-availability and use of ICT facilities resulted in the poor performances of students in English Language in secondary schools in Ihitte/Uboma Local Government Area of Imo State.

IV. DISCUSSION

Availability of Information and Communication Technology

The result of the present study was that Information and Communication Technology aids were not available in good numbers. The result means that students had no access to ICT facilities while studying English language and that teachers were also not privileged to use ICT facilities in their teaching. The reason for this result may be because of possible poor funding of public secondary schools in Imo State. Public secondary schools are owned by the government hence instructional materials as ICT facilities should be made available by the government for use in public secondary schools. Few secondary schools that had some could not meet the needs of students because the numbers of ICT facilities was inadequate. Responses from students equally presented a gloomy picture on classroom teachers' incompetence in using the available facilities suggesting the need for training and re-training exercise for language teachers, through sensitization programmes and conferences. The result of the present study aligned with Clifford (2010) whose study revealed that second language instructions given to students presented challenges because of the non-availability of ICT facilities. In a similar study, findings from Hussaini and Muhammad (2022) revealed that non availability of ICT facilities faulted the programme designed to improve Social Studies Education in secondary schools in Niger State.

The result of the study was that students' poor achievement in English language was as a result of the non-availability of Information and Communication Technology facilities in secondary schools in Ihitte/Uboma Local Government Area. This result means that students actually performed poorly in English language assessment tests conducted in their

schools. The reason for this result may be because of an obvious deficiency in the use of Information and Communication Technology facilities among students and inadequate provision of ICT facilities in schools in the local government area. This may have prevented them from having access to study materials at home or learning from other peoples work through the internet. The present result aligned to Hassana, Umar and Auwal (2019) whose findings revealed that the use of technology improved the academic performance of students diagnosed with learning disabilities. It could therefore be concluded that ICT facilities when adequately implemented may enhance the achievement of students in language education.

CONCLUSION

In view of the answered research questions towards the role of ICT in enhancing language learning and education in secondary schools in Imo State; English language proficiency and academic achievement of students will definitely improve when ICT is used in the teaching and learning of English language.

RECOMMENDATIONS

From the findings of the study, it is recommended that government should work towards making available more ICT facilities in secondary schools in Imo State. It is also important to make the training and retraining of teachers of English language and other subjects in the use of modern ICT facilities such as, computers, projectors, printers, locating internet websites for teaching of language studies and so on, a regular affair.

Government and other educational stakeholders should play vital roles in planning conferences and workshops for retraining of teachers towards effective and efficient use of ICT aids in secondary schools in Imo State.

REFERENCES

[1] Ajileye, I.C. & Nwoga, A. (2013). ICT/technology as factors of indiscipline in Nigeria schools. Onete Onete U. and Nnamdi Obikeze (Eds) Discipline and Nigerian educational System, Owerri, Fasmen Communications, 99-106.

[2] Bibire, A.H. & Akinboboye, J.T. (2015). Attitude of in-school adolescents towards the use of ICT in Nigeria. *The Nigerian Educational Psychologist*, 13(1): 53-60.

[3] Chukwuka, J.N. (2022). Challenges of online curriculum implementation in the COVID-19 ERA in Anambra State: Challenges and the way forward. *Journal of Education and Research*, 12(10), 31-37.

[4] Clifford, S.D. (2010). Use of the language laboratory to control mother tongue induced difficulties in oral English for L2 learners of English Language. *The Nigerian Educational Psychologist*, 8(1): 63-68.

[5] Gurjiya, S.A. (2019). Issues in early child care and education (ECCF): A case for improved delivery in inclusive education programme in Nigeria. *Journal of the Nigerian Society for Educational Psychologists*, 17(1): 224-229.

[6] Hassana, S.D., Umar, A.T. & Auwal, I.B. (2019). Diagnosis and management of learning disabilities among school aged children in inclusive settings. Nnachi, R.O. and Bellow, M.S. (Eds). Educational Psychology for Inclusive Education, Lagos Global Computer.

[7] Hussaine, A.B. & Muhammed, A. (2022). Impact of interactive instructional television on academic performance of junior secondary social studies students. *Journal of Education and Research*, 12(10); 38-43.

[8] Indiana Department of Education (2017). Dyslexia, dysgraphic, dyscaleulia. Retrieved on August 10, 2018, from https: www.doe.cjov/sites/default/files/specialed/ dyslexia-dysgraphia-dyscalcula.pdf.

[9] Onukwufor, J.N. (2016). Learning problems of children and adolescents in Nigeria and intervention strategies. *International Journal of Education and Evaluation*, 2(7), 41-48.