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The Place of Information and Communication Technology (ICT) in the Improvement of the Quality of Secondary School Teachers in Enugu North Local Government Area of Enugu State

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ABSTRACT

This study investigated the place of information and communication technology in improvement of the quality of secondary school teachers in Enugu North Local Government Area of Enugu State, Nigeria. To achieve this, three research questions were formulated which guided the study. A descriptive research design was adopted for the study. Random sampling technique was used to select 300 teachers comprising of 222 female and 78 male teachers out of a population of 761 teachers in the area. The data for the study was collected using a 20-item structured questionnaire developed by the researcher based on 4-point Likert scale. The reliability of the instrument was determined using test-re-test method which yielded a Pearson Product Moment correlation coefficient of 0.80 to indicate that the instrument was reliable. Mean and standard was used to analyze the data collected. The findings of the study revealed that classroom teachers in Enugu North Local Government Area of Enugu State are low in possession of ICT skills. It was also found that ICT play important role in improvement of teachers' quality in the area of motivation of students' interest in learning and enhancing teachers' knowledge of subject matter through collaboration and sharing of ideas with other teachers within and away from their localities, equipping teachers with latest information and innovative skills in their subject areas and promoting effective classroom instructional delivery through multimedia instructional materials and resources. The findings of the study revealed some constraints which affect the use of ICT by the teachers which include inadequate ICT facilities in secondary schools, irregular power supply, conservative and skeptical attitude of teachers towards ICT, lack of proper orientation by government on the relevance of ICT and high cost of acquiring ICT facilities. Based on the findings the researcher recommended that ICT facilities should be provided in all the secondary school in Enugu North Local Government Area and that there should be increased awareness on the relevance of ICT in education sector through seminars and workshops.

Keywords: Information, Communication, Technology and Improvement.

INTRODUCTION

Many countries of the world including Nigeria are making huge investments in information and communication technology (ICT) to improve and to update the education they provide to their young generations. In the developed and industrialized countries such as USA, Canada, Japan and the United Kingdom,

the objectives of a ration of 10:1 in the utilization of the computer in schools is gradually being achieved. These countries are consistently promoting research on ICT usage inside the classrooms for many different educational, cultural and social settings. In fact, they are using their findings to fine-tune policy decision [1].

[2] described ICT as a generic term referring to technologies that are used for collection, storing, editing and passing information in various forms. According to him, a personal computer is the best known example of the use ICT in education. He however, continued that the term multimedia is also frequently used and it can be interpreted as a combination of data carriers, e.g video, VCD, ROM, Floppy disk, the internet and software in which the possibility for an interactive approach is offered. To [3], ICT is the use of computers and computing through communication gadgets. It has also been boosted by the development of internet which provides such facilities as electronic mail (e-mail), teleconferencing and world wide web for browsing. The starting point for the use of these facilities is being computer literate. [4] opined that being computer literate is the ability to operate a computer, use it in word processing, data processing, get information from the internet and well as solve problems.

The world is becoming dominated by computer and this requires that people prepare for it through education. In Nigeria, come policy innovation and changes have been made in Nigeria Policy on Education, 2004. This includes the introduction of information and communication technology into the school system. This innovation was adopted to teach the ICT experience. The policy was a laudable one but the strategies for achieving it were not duly considered. This is where the place of the teachers come in. the importance of the teachers and the teacher' education has been highlighted in the National Policy on Education [1] when it stated that no education can rise above the quality of its teachers, and the country by extension. Also, on the importance of teachers, [2] states that teachers are largely responsible for the translation and implementation of educational policies, curriculum or course offering, instructional materials packages and assessment of learning outcomes at all levels of learning. [1], also asserts that the focus of any educational programmes or

measure should be on the teacher who is crucial in translating policy into practice. To [3] a teacher is a person prepared for the job of dispensing knowledge to others according to their needs and capabilities by his education and professional training.

It has been observed in the developing countries that many students are not proficiently skilled enough to demonstrate a basic understanding of the scientific concepts embedded in the theory and practice of ICT. These abilities are necessary for use, if one considers the vast amount of knowledge present in today's networks; this makes teachers' education very vital.

Teachers' education is therefore the component of any educational system charged with the education of the teachers. In his contribution, [3] sees teachers' education as the process of preparing or developing individuals with the necessary knowledge and skills that will enable them effectively direct learning situations. Furthermore, [2] asserts that any nation that is serious about manpower development must pay serious attention to the education of the teachers than any other profession because according to him, the teachers is more related to development of manpower through the impact of knowledge, skills and expertise needed to equip one into living useful life as well as serving the nation. Teachers' education programmes are expected to produce highly motivated, conscientious, and efficient classroom teachers for all the level of education [2]. In addition, it should enhance teachers' commitment to the teaching profession.

[3], stated that it required a systematic transformation of the objectives in relevance to the types of teachers' education expected in Nigeria today. According them, this presupposes that the type of education required is that which is capable of equipping the teachers with the basic knowledge, skills and competencies geared towards achieving national objectives as well as meeting individuals needs of the citizens. To remain afloat in the current trend of

the global academic community, [4] opines that in this period of information evolution, our educational institutions should begin to invest in modern educational technologies which will provide an innovative learning environment where students and teachers could reach beyond the confines of a school building for information, interaction and enrichment. For the improvement in the quality of the classroom teachers, the ICT is of great advantage to the nation since they will impact the same to the products of their schools who will eventually turn out to be

the nation's well-equipped manpower. In addition to the above, the World Bank [1] emphasizing the pertinent role of the teachers in the effective utilization of this new global innovation and practice opines that is not the presence of technology in itself that stimulates significant changes inside a school. Without the involvement of the teachers, most students may not take full advantage of all the available potentials on their own. There is need for teachers to organize learning spaces and guide the students towards the achievement of significant learning objectives.

STATEMENT OF THE PROBLEM

The use of information and communication technology (ICT) in Nigerian educational system has not been fully given the rightful place. As a developing nation, Nigeria has to match up so as not to be left behind in this millennium of internet and communication advancement. For Nigeria to achieve this, there is need for proper

perspective of the ICT in improving the quality of teachers, since teachers occupy a vital place in the improving the quality of education in general. Hence, the problem addressed in this study is to investigate the place of ICT in improvement of the quality of secondary school teachers in Enugu North Local Government Area of Enugu State.

PURPOSE OF THE STUDY

The study is set out to:

1. Ascertain the level of ICT skills possessed by teachers for quality teaching and learning in secondary schools in Enugu North Local Government Area of Enugu State
2. Find out the impact of ICT in improving teachers' quality in teaching and learning in secondary schools in Enugu North Local Government Area of Enugu State.
3. Determine the constraints to teachers' use of ICT facilities for quality teaching and learning in secondary schools in Enugu North Local Government Area of Enugu State

Research Questions

1. What is level of ICT skills possessed by teachers for quality teaching and learning in secondary schools in Enugu North Local Government Area of Enugu State?
2. What is the impact of ICT in improving teachers' quality of teaching and learning in secondary schools in Enugu North Local Government Area of Enugu State?
3. What are the constraints to teachers' use of ICT facilities for quality teaching and learning in Enugu North Local Government Area of Enugu State?

METHODOLOGY

Research Design

The research design adopted in the study was descriptive research design.

Area of the Study

The study was carried out in Enugu North Local Government Area of Enugu State. Enugu North LGA is one of the Local

Government Areas in Enugu Education Zone in Enugu State and falls in Enugu East senatorial district alongside Enugu East, Enugu South, Isi-Uzo, Nkanu West and Nkanu East Local Government Areas. Enugu North LGA is located at 6°28'N and

7°31'E covering a total area of 106km² and bounded in the north by Enugu East Local Government Area, in the east by Nkanu East Local Government Area, in the west by Udi Local Government Area and in the south by Enugu South Local Government Area of Enugu State.

Population for the Study

The targeted population for the study involved all the teachers in all the nine (9) secondary schools in Enugu North Local Government Area of Enugu State numbering 761 according to statistics unit of the Post Primary Schools Management Board (PPSMB) Enugu. This comprised 564 female and 197 male teachers in secondary schools in the area.

Sample and Sampling Technique

The sample size for the study was 300 teachers comprising of 222 female and 78 male teachers determined for the study using the Yaro Yamane formula for a definite population. A sample of 35% of the population of teachers in each school was drawn using simple random sampling technique.

DATA COLLECTION

The copies of the questionnaire were administered to the respondents with the help of two research assistants. Out of the 300 copies distributed, 284 copies were retrieved and used in the data analysis.

Data Analysis

The data collected were analyzed using mean and standard deviation for answering the research questions. A scale mean of 2.50 was computed and used for

Instrument for the Data Collection

The instrument used for data collection was a two part structured questionnaire developed by the researcher. Part A contains information on personal data of the teachers while part B contained 20 items constructed using a 4-point Likert scale.

Validation of the Instrument

Three experts in education research methodology from Enugu State College of Education (Technical) Enugu validated the instrument. They scrutinized the instrument with respect to the appropriateness and clarity of items.

Reliability of Instrument

The test-re-test method was used to ascertain the reliability of the instrument. A Pearson Product Moment correlation was computed between the two set of scores obtained which yielded a reliability coefficient of 0.80. This indicated that the instrument is reliable since the value is high and tends towards 1.

decision on questionnaire items. For the research question one, any item with a mean of 2.50 and above was considered to be possessed at high extent, otherwise it considered to be possessed by the teachers at low extent. For research questions two and three, any item with a mean rating above 2.50 indicated that the respondents agreed, otherwise it was considered as disagreed.

RESULTS

The results of the data analysis were presented in table according to the research questions.

Research Question 1

What is level of ICT skills possessed by teachers for quality teaching and learning in secondary schools in Enugu North Local Government Area of Enugu State?

Table 1: Mean and standard deviation on ICT skills possessed by teachers for quality teaching and learning

S/N	Item Statement	VHE	HE	LE	VLE	\bar{X}	Sd	Dec
1	Ability to typeset documents using Microsoft Word	62	60	20	142	2.15	1.25	LE
2	Ability to access, use and guide students on how to use e-books, e-journals, e-library	21	77	14	172	1.81	1.07	LE
3	Ability to use PowerPoint and overhead projectors to create presentations for classroom teaching and learning processes	30	93	54	107	2.16	1.05	LE
4	Ability to perform computation, storage and analyses of students' results using Spreadsheet packages like Microsoft Excel	40	75	21	148	2.02	1.16	LE
5	Ability to download pictures, diagrams, charts, videos, used as instructional materials	39	13	4	228	1.52	1.08	LE
6	Ability to use and guide students on using computer assisted instruction application in teaching and learning	-	-	61	223	1.42	0.82	LE
7	Ability to Join a listserv to share ideas on curriculum, research and innovations in schools subjects	38	88	32	126	2.13	1.13	LE
8	Ability to use ICT in preparing school timetables, activity rosters, nominal rolls, and scheduling	38	69	4	173	1.90	1.18	LE
9	Ability to copy students and staff files, folders and records using CD/DVD/Flash drive for external backups	32	55	8	189	1.75	1.12	LE
10	Ability to create and maintain blogsites to publish notes, lessons, classwork for students to access	42	76	14	152	2.03	1.18	LE

Source: Researcher's computations

Table 1 shows the results of the analysis of data on the level of ICT skills possessed by teachers for quality teaching and learning in secondary schools in Enugu North Local Government Area. The results show that the mean ratings of the teachers in all the items range from 2.16 to 1.42 which are all below the acceptable benchmark of 2.50.

This indicates that the teachers possessed all these ICT skills at low extent.

Research Question 2

What is the impact of ICT in improving teachers' quality of teaching and learning in secondary schools in Enugu North Local Government Area of Enugu State?

Table 2: Mean and standard deviation on the impact of ICT in improving teachers' quality in teaching and learning

S/N	Item Statement	SA	A	D	SD	\bar{X}	Sd	Dec
11	ICT helps teachers to motivate students, develop and retain their interest in learning	121	91	48	24	3.09	0.96	Agree
12	ICT improves students-centred and individualized instruction through computer assisted instruction (CAI)	85	86	102	11	2.86	0.89	Agree
13	ICT equips teachers with latest information and innovative skills in their subject areas	127	69	70	18	3.07	0.97	Agree
14	ICT enhances knowledge of subject matter through collaboration and sharing of ideas with other teachers within and away from their localities	85	91	47	61	2.70	1.11	Agree
15	ICT promotes effective classroom instructional delivery through multimedia instructional materials and resources	79	104	101	-	2.92	0.79	Agree

Source: researcher's computations

The results in Table 2 show that the mean ratings of the respondents on all the items range from 3.09 to 2.70 which are all above the acceptable cut-off point of 2.50. This shows that the respondents agreed that these statements represent the role of ICT in improvement of the

quality of secondary school teachers in Enugu North Local Government Area.

Research Question 3

What are the constraints to teachers' use of ICT facilities for quality teaching and learning in Enugu North Local Government Area of Enugu State?

Table 3: Mean and Standard deviation on the constraints to teachers' use of ICT facilities for quality teaching and learning

S/N	Item Statement	SA	A	D	SD	\bar{X}	Sd	Dec
16	Inadequate ICT facilities in secondary schools in Enugu North LGA	83	111	80	10	2.94	0.84	Agree
17	Irregular power supply in secondary schools in Enugu North LGA	129	121	32	2	3.33	0.70	Agree
18	Conservative and skeptical attitude of teachers in secondary schools in Enugu North LGA	84	86	101	13	2.85	0.90	Agree
19	Lack of proper orientation by government on the relevance of ICT	115	165	4	-	3.39	0.52	Agree
20	High cost of acquiring ICT facilities	178	80	26	-	3.54	0.66	Agree

Source: Researcher's computations

The results presented in Table 3 show that the mean ratings of the respondents on all the items range from 3.59 to 2.85. These are all above the acceptable benchmark of 2.50 and therefore indicate that the teachers were of the opinion that

these item statements represent some constraints to teachers' use of ICT facilities for quality teaching and learning in secondary schools in Enugu North Local Government Area.

DISCUSSION OF FINDINGS

The findings of the study revealed that classroom teachers in Enugu North Local Government Area of Enugu State are low in possession of ICT skills. This does not make for quality performance in teaching and learning in a dispensation in which information and communication technology especially computers are revolutionizing all aspects of the society. It also poses great educational implication for the state educational system. The import of the modern information and communication technologies has become imperative for the achievement of the goals of the educational system in the nation. [1] is of the opinion that one major problem facing Nigeria today emanates from the paucity of information and communication technology in Education. He concluded that that ICT could empower teachers and enable students to acquire the skills they need to become productive citizens and compete effectively in the merging computerized global market. Also, in line with this finding, [2] opined that knowledge of ICT is none negotiable in Nigerian education system and is mandatory to facilitate immersion into and participation in the world's technological community.

Another finding of the study revealed the place of ICT in the improvement of the quality of secondary school teachers in teaching and learning process. The finding show that ICT can be used by teachers to motivate students, develop and retain their interest in learning and enhances teachers' knowledge of subject matter through collaboration and sharing of ideas with other teachers within and away from their localities. It was also found that ICT equips teachers with latest information and innovative skills in their subject areas and promotes effective

classroom instructional delivery through multimedia instructional materials and resources. This indicates that ICT occupies a veritable place in improvement of the core qualities of a good teacher which include motivation of students and retaining of their interest in learning, resourcefulness, mastery of subject matter and effective instructional delivery. Unfortunately, the findings revealed that despite being aware of the important place of information and communication technology (ICT) in improving teachers' quality in teaching and learning, secondary school teachers in Enugu North Local Government Area are low in possession of ICT skills. This further suggests that the teachers do not apply ICT in their teaching and learning process in the schools.

The lack of ICT skill by the teachers in the area is not unconnected to some constraints as the study also revealed some militating factors against the effective use of ICT for improving teachers' quality in teaching and learning. This include inadequate ICT facilities in secondary schools, irregular power supply, conservative and skeptical attitude of teachers towards ICT, lack of proper orientation by government on the relevance of ICT and high cost of acquiring ICT facilities. Precisely, the conservative and skeptical attitude of the teachers towards ICT further elucidates the lack of ICT skills by the teachers despite being aware of its importance in improvement of teachers' quality. The findings agree with the assertion of [2] that the problem of effective use of ICT by school teachers includes lack of infrastructure, few computers and expensive repair/maintenance of ICT facilities.

CONCLUSION

From the findings of the study, a conclusion can be drawn that secondary schools teachers in Enugu North Local Government Area do not possess adequate ICT skills despite being aware of the important role of ICT in improvement of the quality of teachers in teaching and learning. This can be traced to certain constraints such as inadequate ICT

facilities in secondary schools, conservative and skeptical attitude of teachers towards ICT and high cost of acquiring ICT facilities. This implies that to improve the quality of the secondary schools teachers in the area there is need to ameliorate these constraints and encourage the acquisition of relevant ICT skills by the teachers.

RECOMMENDATIONS

The following recommendations were therefore made:

1. ICT facilities should be provided in all the secondary school in Enugu North Local Government Area.
2. There should be increased awareness on the relevance of ICT

in education sector through seminars and workshops.

3. There should be mandatory ICT in-service training programmes for all teachers sponsored by the government and NGOs in Enugu North LGA.

REFERENCES

1. Akinduyo, T.E. (2014). Teaching profession in Nigeria: Issues, problems and prospects. *International Journal of Scientific and Research Publications*, 4(11),1-3.
2. East Central State of Nigeria (1990) *Teachers' Service Manual*. Enugu: Government Printers.
3. Federal Republic of Nigeria, FGN (2004), *National Policy on Education*. Lagos: NERC Press.
4. John, O.A. (2006). Reflectionson becoming a teacher and the challenges of teacher education. *Inaugural Lecture, Series 64*, Faculty of Education, University of Benin, Benin-City, Nigeria