

ASSESSMENT OF PRIMARY SCHOOL TEACHERS' COMPUTER LITERACY IN SOUTH-SOUTH REGION OF NIGERIA

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Abstract

The study assessed the level of primary school teachers' computer literacy in South-South Region of Nigeria. A descriptive survey research design was employed to achieve the aim of the study. Purposive/random sampling procedures was used to select 350 primary school teachers for the study. The instrument for data collection was a structured questionnaire, titled "Teachers' Computer Literacy Questionnaire". The instrument was validated by three experts, one in Curriculum and Instruction, one in Educational Planning and Management and one in Measurement and Evaluation. The reliability was carried out using Cronbach's alpha, which yielded a coefficient value of 0.72. The data were analysed using mean, percentage and chi-square. The results showed that quite a number of primary school teachers are not computer literate and those who are, acquired computer literacy through self-exploration. The results also showed that there was no significant difference as regards public and private primary school teachers' on the acquisition of computer literacy in South-South Region of Nigeria. The study therefore recommended, among others, that government and individuals should endeavour to help provide computer gadgets in schools and ensure training of teachers for effective operation.

Keywords: Assessment, ICT, Primary Schools, Teachers' Computer Literacy.

Introduction

Education has become more involved in information and computer technology (ICT) because of rapid and expanding technical breakthroughs worldwide and the demand for computer literate teachers has increased in the modern world, and this demand can be met by incorporating ICTs into education (Ogunbayo & Mhlanga, 2021). The Federal Republic of Nigeria in the National Policy on Education (2004) and Omo-Ojugo, Ibhafidon & Otote, (2009) specifically states that no education system may rise above the quality of its teachers; consequently, teacher education shall continue to be given major emphasis in all educational planning and development. The policy document further states that the goals of teacher education in Nigeria shall among others include: to produce highly motivated, conscientious and efficient classroom teachers for all levels of our educational system, help teachers to fit into social life of the community and the society at large and enhance their commitment to national goals. Can this be said of primary school teachers in relation to computer education?

Computer literacy is the knowledge and ability to use computer and technology efficiently (Aguale, 2007; Tumburku, Kamba, Muhammad & Gwandu, 2019). Computers according to Alabi and Yisa (2013) have introduced a new era in traditional methods of teaching and offering new teaching and learning experiences to both teachers and students. Many benefits are accruable from teacher computer literacy. Olusi, Aguele,

Ihumuaibvi, and Edobor (2009) found that teacher -in- training helps them to be more knowledgeable about social factors that can affect the underachievement or overachievement of students as well as help the teachers to assist the students to better utilize their free time in doing homework assignments instead of spending endless time in the cafes committing crime. Falloon (2020) concluded that computer literacy does not only assist teachers in the classroom but help them to communicate with the world and make them to be productive. Nigeria is in a process of reconstruction (National Forum for Policy Development, 2007).

The educational sector has not been left out in this process of national reconstruction. As it has witnessed several innovations. This is because education is the backbone of national construction. These innovations were recorded in the area of curriculum offerings in virtually in all levels of educational system. Equally, this was extended to the Universal Basic Education programme that is compulsory for learners in the first nine years of formal education. These innovations were aimed at repositioning the nation in her dream of realizing the vision 20:20:20 (establishing the nation among the first twenty most developed nations in the year 20:20). Accordingly, NERDC was directed by the National council on education (NCE) to restructure and realign the existing primary and junior second school curricular to meet the targets of the 9-year Basic Education in the context of the National Economic Empowerment Development Strategies (NEEDS) and the Millennium Development Goals (MDGs) (Eze kewesili, 2007).

The curricular innovations at the primary and secondary school levels have seen the introduction of subjects such as computer education and cultural and creative arts, among others. This is understandably to ensure that every Nigerian child becomes well positioned in the global village where the computer has been a major tool for commercial and technological activities (ICT driven world). To demonstrate the importance attached to computer education, it is made a core-subject at both the primary and junior and secondary schools. However, this very important innovation took for granted that the teacher to teach this subject were not readily on ground. It is a fact that until of recent most of the teacher training institutions in Nigeria have no computer education in their curriculum and in fact, as at this moment only a very small percentage of our teacher training institutions have computer education in their curriculum. A greater percentage of teachers in the primary and secondary school are mainly those who have not had any form of computer education.

The National Teachers Institute (NTI), Kaduna, organizes a yearly training programme for primary school teachers. While other traditional subjects such as English, Mathematics, Basic Science, English Language and Social Studies feature in the training programme, computer education has been conspicuously absent. Equally, the Universal Basic Education Commission (UBEC) which has also been in the forefront of organizing annual training programme for both primary and junior secondary schools, until of recent has also left out computer education. The conclusion to be drawn from the exclusion of this computer education by the two very important organizations is that the primary school teachers are computer literate. It is therefore important to ascertain the level of computer literacy by teachers in primary schools in South-South zone of Nigeria.

Statement of the Problem

It is a fact that you cannot give out what you don't have. For a teacher to effectively impart knowledge on others, he must of necessity possess that knowledge. Similarly, for primary school teachers to teach computer education effectively, it is expected that they are computer literate. Computer literacy by teachers is of great importance in education, but it is faced with numerous problems ranging from lack of funds for the purchase of the computers and its accessories, lack of resource personnel, non-utilization of the computers for the teaching and learning process, poor power supply and teachers' unwillingness to familiarize themselves with the technologies. Authors such as Adebayo and Fagbohun (2013), Alarape and Suleima (2014), Ogunbayo and Mhlanga (2021) carried out some studies on teacher computer literacy at primary and secondary school level. Most of these authors were carried out at the local government and state levels, but the present study covered the South-South Region of Nigeria. This has created a gap to be filled. It is pertinent at this juncture to ask: Are primary school teachers computer literate in South-South Region of Nigeria?

Research Questions

The study provided answers to the following research questions:

Research Question 1: Are primary school teachers' computer literate?

Research Question 2: Are primary school teachers exposed to pre-service training in computer education?

Research Question 3: Are primary school teachers exposed to in-service training in computer education?

Research Question 4: Is there any difference between public and private primary school teachers on the acquisition of computer literacy?

Method

Research Design

The study employed the survey research design and observational technique. This technique enabled the researchers to observed the level of literacy of teachers using a questionnaire.

Population and Sampling Procedure

Primary school teachers constituted the population of the study. Primary school teachers consisted of a sample of 350 teachers in the South-West, South-South and South-Eastern Geopolitical Zones of Nigeria. These zones were used for the study, based on the researchers' belief that these regions apparently seemed to be more educationally advanced in the country. Consequently, one hundred teachers each were randomly selected from the South-South and south eastern regions while one hundred and fifty teachers were randomly selected in south west. The south west was perceived as being more educationally advanced than the others zones. Furthermore, the sampled teachers were made up of two hundred ten (210) or sixty percent (60%) public primary schools teachers and one hundred forty (140) or forty percent (40%) private primary school teachers. This is summarized in the table below.

Table 1: Distribution of Respondents Based on Zones.

Zone	South-West	South-South	South-East	Total
Public primary school teachers	90	60	60	210
Private primary school teachers.	60	40	40	140
Total	150	100	100	350

Measuring Instrument

The Teachers' Computer Literary Question (TCLQ) was used in the collection of data. This scale was made up of two or parts namely part I and part II. Part I sought teachers name, years of experience, qualification and school location. Part II required respondents to answer Yes or No to the questions stated hereunder: Are primary school teachers' computer literate? If computer literate, how did you acquire the knowledge? through pre-service training? (i) pre-service training (ii) in-service training (iii) self-initiative; Are you aware of computer based educations? Is there any difference between public and private primary school teachers in computer literacy?

Validity and Reliability of Measuring Instrument

The instrument was validated using the face and construct validity. The instrument was presented to experts in measurement and evaluation who went through it and the corrections made were incorporated in the final draft. The Cronbach's alpha reliability test was carried out and the reliability coefficient of 0.72 was obtained which was adjudged as reliable.

Data Analysis

The data collected were analyzed using the mean, percentage and chi-square.

Results

Research Question 1: Are primary school teachers’ computer literate?

Table 2 Computer Literacy among primary school teachers.

Zone	South-West		South-South		South-East		Total	
	nos.	%age	nos.	%age	nos.	%age	nos.	%age
Public school teachers	21	23.33	17	28.33	17	28.33	55	26.19
Private school teachers	35	58.33	24	60	23	57.5	82	58.57
Total	56	37.33	41	41	40	40	237	67.71

From the Table above it was found that two hundred and thirty-seven or thirty-seven percent (39.14%) of the three hundred and fifty sampled teachers were computer literate. Furthermore, a total of fifty-five (55) teachers or forty-two point eight five four percent of the sampled public school teachers have computer education while eighty-two or fifty-eight point one four (58.57%) of the private school teachers are computer literate.

Research Question 2: Are primary school teachers exposed to pre-service training in computer education?

Table 3: Sources of computer knowledge by teachers

Zone	South-West			South-South			South-East		
	In-service	Pre-service	Self-initiative	In-service	Pre-service	Self-initiative	In-service	Pre-service	Self-initiative
Public School teachers	8	5	8	3	4	10	3	5	9
Private school teachers	8	5	22	5	4	15	4	5	14
Total	16	10	30	8	8	25	7	10	23

Table 3 above showed that south west has 30, 8 and 7 teachers acquired computer education through self-initiative, pre-service and in-service training respectively while 23, 6 and 8 south/south teachers acquired the knowledge through self-initiative, pre-service and in-service respectively. Finally, 23, 11, and 7 south east teachers acquired the knowledge through self-initiative pre-service and in-service respectively. Table 3 provides a summary of the sources of computer knowledge for the teachers that are computer literate was found that seventy-six or 61% of the teachers acquired computer literacy through their self-initiative while, twenty-five or 20% of the teachers acquired the knowledge through pre-service training. Finally, twenty-two or 17% of the teachers acquired the knowledge through in-service training.

Research Question 3: Are primary school teachers exposed to in-service training in computer education?

Table 4: Level of Exposed to In-service Training in Computer Education

Zone	South-West %		South-South %		South-East %		Total %	
Public school teachers	26	28.8%	20	33.3%	14	23.3%	60	28.5%
Private school teachers	30	60%	26	65%	20	50%	76	54.2%
Total	56	37.3%	46	46%	34	34%	136	38.8%

The table above revealed that out of the three hundred and fifty teachers sampled, only two hundred and twenty-six or 38% of them were aware of computer based education.

Research Question 4: Is there any difference between public and private primary school teachers on the acquisition of computer literacy?

Table 5: Summary of chi-square using difference public and private schools

	Value	df	Asymp. Sig, (2-sided)
Pearson chi-square	82.432 ^a	2	.001
Likelihood Ratio	56.312	2	.003
Linear-by-Linear Association	59.223	1	.001
N of Valid Cases	346		

The chi-square analysis on difference in computer by teachers was presented in Table V. The calculated value was 82.432 and was significant at 0.001 ($0.001 \leq 0.005$) and hence, the null hypothesis was rejected. Therefore, there is no difference between the computer literacy of public and private primary teachers in Southern region of Nigeria.

Discussion

The analysis of the various data revealed quite a number of primary school teachers are not computer literate in the study area. The study also revealed that quite a number of teachers are aware of computer education but are yet to embrace it. This could be due to the fact that the facilities are not readily available and the available pre-service and in-service training fall short of expectations as government and corporate individuals are not doing much to encourage computer education among teachers. The result of the study also revealed that there was no significant difference in the computer literacy level of public and private primary school teachers in the southern region of Nigeria. The reason for this finding could due to the fact that many schools whether public or private are yet to fully integrate computer education in their curricular. It could also be due to the fact that until recently, many faculties of education were not having computer education programme for training of computer literate teachers.

The findings of this study were supported by some authors such as Adebayo and Fagbohun (2013), Alarape and Suleima (2014), Ogunbayo & Mhlanga, (2021), Tumburku, Kamba, Muhammad and Gwandu, (2019), Alabi and Yisa (2013), Ogunbayo and Mhlanga (2021) who found that computer literacy is low among primary and secondary school teachers. This means that computer integration in primary school curriculum is key to advancing competency in computer education in Nigeria.

Conclusion

The study concluded that computer literacy among primary school teachers in South-South Region of Nigeria is low. The study also concluded that that was no significant difference between public and private primary school teachers in their computer literacy level.

Recommendations

The following recommendations are made.

1. Government and proprietors of schools should endeavour to integrate computer education in the school curriculum and make it compulsory.
2. Government should endeavour to equip the primary schools with computers and its accessories and provide sustainable power supply for its effective operation.
3. Training and re-training of teachers should be carried out on a regular basis by government and school heads.
4. Private individuals should be encouraged to assist in the provision of computer laboratories in schools.

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