

FACTORS MILITATING AGAINST EFFECTIVE TEACHING OF COMPUTERS STUDIES IN SECONDARY SCHOOLS IN ENUGU EAST AND ENUGU NORTH LOCAL GOVERNMENT AREAS OF ENUGU STATE

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Abstract: *The study investigated the factors militating against effective teaching of computer studies in secondary school in Enugu East and Enugu North Local Government Areas of Enugu State. Descriptive survey research design was used for the study. The population of the study comprised the entire computer teachings teaching in secondary schools within Enugu East and Enugu North Local Government Areas. There are twenty (20) schools in Enugu East and Enugu North. We estimated about fifty-two (52) computer teachers in the two local government areas. All the fifty two (52) teachers were used for the study. Therefore, there was no sampling. The data analyzed using the mean score showed that non-availability, poor maintenance and irregular power supply and lack of qualified teachers contributed to effective teaching of computer education in secondary schools in Enugu East and Enugu North Local Government Areas of Enugu State. Conclusion was made and it was recommended that government and private organization should help in providing computer equipment and facilities. The government should ensure that there is regular power such as generator for the school. Therefore, teachers teaching this subject should be qualified.*

Keywords: *Teaching, Computer Studies, Secondary Schools, Enugu State.*

How To Cite

Odo, C. S. (2022). Factors Militating Against Effective Teaching Of Computers Studies In Secondary Schools In Enugu East And Enugu North Local Government Areas Of Enugu State. *Journal Of Research In Science And Vocational Education (Jrsve)*, 2(1). Retrieved From <https://jrsve.com/index.php/jrsve/article/view/11>

Introduction

Computer has a long history of existence. Today Computer technology has undergone series of transformations. According to Kremer (2015) Computer is an electronic machine that operates with remarkable speed and reliability.

Although initially, many believe it was impossible that computer could be a scientific field of study, in the late fifties it gradually became accepted among the greater academic population. Computer studies are the study of the basic principles and rudiments behind the operation and effective usage of the computers. Computer has become a rapidly growing discipline as, the technological age advances.

Computer has remained the base for all information technology because all information technology equipment makes use of concepts such as mobile handset, internet phones, e-mail, internet browsing, e – commerce, etc. Computer is a strong tower, housing other disciplines because introduction of computer helps to enhance performance of other disciplines.

Computer Education is defined as as the process of equipping learners with the skills that will enable them to make effective use of computers. Makinde (2017) also defined computer education as the broad term that covers teaching about computer or the use of computer in teaching other subjects. Computer education makes a person literate in it, thus making him informed and knowledgeable

about a computer, what it is and how it ends (Oke and Bukola 2011). Computer Education possess verbal competencies to discuss the social impact of computers on our daily lives; informed about data processing careers; has the ability to read, understand computerized reports of oral data processing and presentations. It is able to do computing that is solve problems involving numbers and run a short basic program and express clearly and concisely in writing and computational ideals.

Today various examination bodies in the country are on-line such as Joint Admissions and Matriculation Board (JAMB), West African Examination Council (WAEC), National Examination Council (NECO), National Business and Technical Education Board (NABTEB), Students Register for such examination on-line and obtained the result later through the use of scratch cards.

There are developments in the education sector, which indicates some level of computer application in the secondary schools. The Federal Government of Nigeria in the National Policy on Education (Federal Republic of Nigeria, 2004) recognizes the prominent role of computers in the modern world, and has integrated computer studies and science into education in Nigeria. To actualize this goal, the document states that government will provide basic infrastructure and training of the primary school at the junior secondary school. It is also the intention of government to provide necessary infrastructure of computer studies in the secondary school's system.

The general objectives of introducing computer in secondary schools are to;

- a) Learn to use computer for learning and teaching
- b) Learn about the computer with a view of choosing a career in the computing or related professions.

It should be noted that 2004 was not the first attempt the Nigerian government made to introduce computer education in schools. In 1988, the Nigerian government educations enacted a policy on computer education; unfortunately, the project did not really take off beyond the distribution and installation of personal computers (Onwuegbu 2011).

Not minding the introduction of computer to secondary schools, many factors appear to have been militating against its teaching. Ofoefuna (2012) observes that full application of instructional system in Nigeria is fraught with many problems. Against this background it became pertinent to identify those factors that are militating against

effective teaching of computer in Enugu East and Enugu North Local Government Areas.

Research Questions

1. To what extent does non-availability of adequate computer pose difficulty to effective teaching of computer education?
2. What ways does poor power supply and maintenance of computer contribute to ineffective teaching of computer studies?
3. To what extent does lack of qualified teachers constitute a problem to the effective teaching of computer?

Hypotheses

The null hypothesis were tested at 0.05 significant level
Ho₁: There is no significant difference between the mean ratings of non-availability of computer and effective teaching of computer education.

Ho₂: There is no significant difference between the mean ratings of power supply and maintenance of computer.

Ho₃: There is no significant difference between the mean ratings of qualified teachers and effective teaching of computer.

Research Method

The research method adapted for this study is descriptive survey research. According to Nworgu (2015) (descriptive survey) aims at collecting data and describing it in a systematic manner, the characteristic features or facts about a given population. The area of study is Enugu East and Enugu North Local Government Areas of Enugu State. There are a total of ten (10) secondary schools in Enugu East and ten (10) secondary schools in Enugu North Local Government Areas. The population of the study comprised all the secondary school computer teachers in Enugu East and Enugu North Local Government Areas of Enugu State. As at 2004-2005, the entire computer teachers in Gringo East were ten (10) in number and seventeen (17) in Enugu North. This is due to computer studies was not made compulsory in the secondary schools.

At 2015 – 2016, the estimated figure of computer teachers in Enugu East were twenty-four (24) and twenty-eight (28) in Enugu North. Because the population was not large enough, the total number of computer teachers found in the area of study was used for the study so there was no sampling. A questionnaire constructed by the researcher

was used to obtain information from the computer teachers. The questionnaire items were designed to cover the three research questions that guided the study.

The questionnaire was structured using a four – part scale shown as follows;

Strongly agreed (SA) - 4 points

Agreed (A) - 3 points

Disagreed (D) - 2 points

Strongly disagreed (SD) - 1 point

Section A, D, and C, covered the three research questions and contained in five items each, making them a total of fifteen (15) questionnaire items.

To ensure the face validity of the instrument, two experts, one from Ecumenical Collage of Education (Department of Science and Mathematics Education) and one from Caritas University (Department of Accounting) and an expert in measure and evaluation went through the items. These experts criticized the items and the researcher noted and reflected their view in the amended instruments, which was used for the study.

The reliability of an instrument refers to the consistency of results of an instrument when initial scores correlates positively with subsequent scores when administered on the same subject repeatedly. The test-retest method was used in establishing the reliability of the instrument. Ten (10) computer teachers were randomly selected from the state secondary schools from Enugu East and Enugu North local government areas of Enugu State. The validated instrument was administered to the teachers by the researcher and one week later, the researcher went back to those same teachers in their respective schools and re-

Table 1: Mean score of computer teachers on the extent of difficulty posed by non-availability of adequate computers/facilities.

S/N	ITEMS	SA (4)	A (3)	D (2)	SD (1)	TOTAL	MEAN (X)	DEC
1	Computers for studies are not enough	936	1854	-	27	2790	3.3	Accept
2	Some of the available computers are already damaged	520	1236	510	55	2771	2.6	Accept
3	No adequate funding/provision of computer software and hardware	936	1854	-	-	2763	2.3	Reject
4	Computer labs are absent	416	39	1836	22	2763	2.3	Reject
5	Computer lab not well furnished (poor computer environment)	936	1545	22	22	2785	3.1	Accept

Grand Mean of Table = 2.9

administered the same instrument to them. Their scores from both testes were tested for reliability of instrument.

With the aid of Spearman Rank Correlation $R = 0.75$ copies of the questionnaire were administered to the computer teachers in the schools under researcher scope. The researcher first of all obtained permission and the consent one of the Principal/Vice Principals in the schools before actual administration of instruments. Copies of the questionnaire were collected on the spot and used for analysis.

For data analysis, the mean was used in answering the three research questions. The data collected were presented in frequency tables. The mean was used in answering the three research questions.

The mean of the weighting scale of $2.50 \frac{(4 + 3 + 2 + 1)}{4} = 2.5$ was computer.

Therefore, the mean of any variable which is equal or greater than 2.5 was agreed while variables whose mean scores were below 2.5 were disagreed. It will be pointed out that acceptance or rejection of an item as a factor militating against effective teaching of computer in secondary schools was based on the frame of the questions.

Result

Data collection are presented and analyzed with respect to the three research question that guided this study. Details are contained in table one

Research Question 1: To what extent does non-availability of adequate computers/necessary facilities pose difficulty to effective teaching of computer education?

The above table of responses of teachers indicates that computers for studies are not enough with a mean of 3.3. They agreed that some of the computers are already damaged with a mean score of 2.6. They also agreed that no adequate funding/provision of computer software and hardware with a means score of 3.3. They disagreed that

computer labs are absent with a mean score of 2.3 rather agreeing that computer laboratories are not well furnished (poor computer environment) with a mean score of 3.1.

Research Question 2: In what ways does maintenance of computer and power supply contribute to ineffective teaching of computer studies?

Table 2: Means score of computer teachers on the influence of time, maintenance of computer and power supply on the teaching of the subject

S/N	ITEMS	SA (4)	A (3)	D (2)	SD (1)	TOTAL	MEAN (X)	DEC
1	No enough time for teaching computer practical	520	1236	48	66	2770	2.6	Accept
2	Computer and computer accessories are expensive	212	26	2040	22	2760	2.2	Reject
3	Poor maintenance of computers	1040	929	36	55	2778	2.9	Accept
4	Lack of ICT technical staff to maintain and repair computers.	1040	929	36	66	2777	2.9	Accept
5	Inconsistent and erratic power supply	624	1236	510	44	2714	2.7	Accept
6	The method of teaching computer studies	520	1236	510	44	2714	2.7	Accept

The Grand Mean = 2.7

From the above table, teachers agreed that there was no time for teaching computer practical with the mean of 2.6. They disagreed that computers and computers accessories are expensive with the mean score of 2.2.

They agreed that poor maintenance of computers in secondary school with a mean score of 2.9. They also agreed that inconsistent an erratic power supply affect the teaching of computer studies in secondary schools with a mean score of 2.7.

They also agreed that the method of teaching computer studies affect teaching of computer in secondary schools with a mean score of 2.7. The total or grand mean score is 2.7.

Research question 3: To what extent does lack of trained teachers constitute a problem to effective teaching of computer?

Table 3: Mean scores of computer teachers on the influence of lack of trained teachers on the teaching of the subject.

S/N	ITEMS	SA (4)	A (3)	D (2)	SD (1)	TOTAL	MEAN (X)	DEC
1.	Teachers are not allowed to attend computer seminars neither do schools arranged for them in the school.	416	412	1734	22	2764	32.4	Reject
2	Qualified and competent computer graduates do not like to serve as teachers because of poor salaries	936	1545	12	22	2515	3.1	Accept
3	Teachers are few compared to the students to be taught	936	1545	12	22	2785	3.1	Accept
4	Some roadside computer operators are at times recruited to act as computer teacher in some schools.	624	1236	510	44	2774	2.7	Accept

From the above table, the teachers disagree that teachers are not allowed to attend computer seminars with a mean score of 2.4. They agreed that qualified and competent computer graduates do not like to serve as teachers of the subject because of poor salary with the mean score of 3.1. They agreed that teachers are few compared to the students to be taught with a mean score of 3.4. They agreed that teachers lack basic teaching training skill with a mean score of 2.6. They equally agreed that some roadside computer operators are at time recruited to act as computer teachers in some schools with mean score of 3.

Discussion of the Findings

The researcher outlined the major finding associated with factors militating against effective teaching of computer education in Enugu East and Enugu North local government areas of Enugu State. The discussion was done in line with research questions that guided the study. With regard to research question one (1) which addressed the extent non-availability of adequate computer equipment or facilities pose difficulty to effective teaching of computer education in Enugu East and Enugu North local government areas of Enugu State, time, non-availability of adequate computer facilities pose difficulty to effective teaching of computer education.

This finding equally agreed with the view of Aroh (2014), who indicated that one of the draw backs associated with computer is its expensive nature? This makes it not affordable by schools let alone individuals. The few schools that have them do not have conducive environment for them. The research therefore agrees that non-availability of adequate computer education in secondary schools in Enugu East and Enugu North local government areas of Enugu State. The result of the study as presented in table two shows that poor maintenance or lack of maintenance of computer and power supply contributes negatively to teaching of computer education in Enugu East and Enugu North local government areas of Enugu State. This is because teachers responded that they do not have enough time to teach the students practical.

They agreed that availability of time, poor maintenance of computers, lack Information Communication Technology (ICT) technical staff, in consistent and erratic power supply (non-affordability of generator) and the method of in table three, the result of the study showed that the lack of trained teachers constitutes a problem to effective teaching of computer.

Four out of five questionnaire items agree with this, they agree that qualified and competent computer graduates do not like to serve as teachers of the subject because of poor salaries, teachers are few compared to the students to be taught. Lack basic teaching skills, and some road side computer operators are at times recruited as computer teachers in some schools with a mean score of 3: 1, 3:1, 2.6 and 2.7 respectively. But one of the items they disagreed that teachers are not allowed to attend computer seminars or that schools does not arrange one for them with a mean score of 2.4.

These findings agreed with Onuchukwu (2015) who is of his specially to an over-learned stage that will enable such teacher to be a master in his specialty area. They should also have knowledge of method and technique suitable for any teaching so as to make their teaching more interesting. The analysis shows that lack of trained teacher, constitute a problem to effective teaching of computer in secondary schools in Enugu East and Enugu North local government areas of Enugu State.

Summary of Findings

The research questions that guide this study were used as basis on the presentation of the summary of findings. Findings related to what extent does non-availability of adequate and necessary facilities pose difficulty to effective teaching of computer education revealed that absence of computer and the necessary facilities hinders effective teaching of computer studies because computer teachers grand mean score of 2.9 is above decision rule of 2.5.

Finally, finding related to what extent does lack of trained teachers constitute a problem to effective teaching of computer revealed that untrained teachers does not teach effectively because their grand mean of 2.8 is above the decision rule of 2.5.

Conclusion

From the above findings, it was concluded that there was non-availability of adequate computer equipment or facilities in secondary schools in Enugu East and Enugu North local government areas of Enugu State. Based on the result of findings, it was clearly show that computer maintenance and inconsistent of power supply is affecting teaching of computer in Enugu East and Enugu North local government areas of Enugu State. More also, there are little qualified computer teachers in secondary schools in

Enugu East and Enugu North local government areas of Enugu State.

Recommendations

The following recommendations arise from the finding of the study;

1. Non-availability of adequate computer or facilities can be addressed if government and other private organizations or firms are involved in computer literacy campaign.
2. Government should assist in creating awareness in secondary schools by providing fund for computer equipment facilities.
3. The school management should provide alternative power supply like generator.
4. The Ministry of Education should always supervise the secondary schools to ensure that the curriculum program is implemented and ensure that the computer labs are well equipped.

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