ASSESSEMENT OF THE PROBLEMS HINDERING EFFECTIVE TEACHING AND LEARNING COMPUTER SCIENCE IN JUNIOR SECONDARY SCHOOLS IN IKWO LOCAL GOVERNMENT AREA, EBONYI STATE.

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Abstract

This study sought to assess the problems hindering effective teaching and learning of computer science in Junior Secondary Schools in Ikwo Local Government Area of Ebonyi State. The research adopted survey research method, the population used for the study was obtained from all the secondary Schools in Ikwo Local Government Area of Ebonyi State. The sample size was determined from 12 selected secondary schools, 10 each from 12 secondary schools. Sample size of 120 was determined using mean score statistical formula. Data were collected using questionnaire and thereafter tables and statistical tools were used for presentation and analysis respectively. Findings of the study indicate that Teachers are not encouraged to utilize computers in their teaching and learning process because it goes a long way to enhance the process and enable teachers to perform their duties effectively, and efficiently. The study concludes that that employing teachers with computer literate, Training and retraining of teachers, provision of computers in schools, equipping computer laboratory and maintaining the systems has made improve education in Nigeria. Poor teaching methods causes students to lose interest to the lesson, lack of computers, lack of electricity, inadequate learning environment and improper class size makes the students to lose concentration from the lesson, teachers with poor qualification cannot adequately and effectively teach the students to the required standard. The study recommends that Basic equipment and infrastructure such as computers and other information and communication technology (ICT) facilities should be put in place in schools to facilitate the acquisition of basic computer skills among teachers and students in secondary schools. Policy makers should consider as a matter of priority the issue of increased funding of secondary education in Nigeria. Increased funding will help to ameliorate problems facing teaching and learning of computer in secondary schools in Ikwo Local Government Area of Ebonyi State.

Keywords: Computer Studies, Teachers and Problems hindering effective computer teaching and learning in secondary schools

Computer education is of paramount importance to national development and it is on this premise that the Federal government of Nigeria sought to introduce computer studies in the education system from primary through to secondary schools. Education systems around the world face formidable challenges that are taxing conventional strategies. Fresh approaches are needed to address persistent problems of the past and provide students with an education appropriate to the needs of a modern, information based-global economy. Now, after more than two decades of unfulfilled promises to revolutionize education, computer and communication technologies are finally able to offer opportunities to significantly improve teaching and learning.

The world today is assuming a global village through the use and application of information and communication technology (ICT). Abubakar (2016) rightly notes that one will be in his office or residence and monitor the events that happen all over the world. This scientific discoveries and manipulations are made possible through the use of computers and other modern and ultra-modern and invention in the field of science and engineering. Computer as a tool has been exposed and it's being utilized in the effective management of education in so many countries (Beker 1986, Herper 1987 and Urah (2015). Countries of the world are said to be developed or not depending on their level of educational development.

This achievement has come with a lot of innovations and revolution into teaching and learning. Events have moved to the electronic stage with computer at the center. This development has brought a lot of innovations and revolution into teaching and learning. The 3R's which forms the nucleus of the old system of education has witnessed series of literacy reforms. The world is now in the age that needs to keep abreast with time. One of the ways of achieving this is through the introduction of computer into our institutions of learning. Obiakor (2017) explains computer as an electronic machine that performs tasks, such as calculation or electronic communication under the control of a set of instruction called programs.

The programs usually reside within the computer and are retrieved as processed by the computer's election. He want further into defining computer as an electronic machines that has the ability to accept data, process data and retrieve data i.e. gives out the result as information. Okolo (2017) describes the term "computer" as an electronic machine or gadget that accepts data as input and process them electronically to produce the desired output or information with the aid of a set instructions. Computer can be generally defined as an electronic device that accepts data, process the data and brings out the result of the data as information. Involving computer science into teaching-learning as a case of Ikwo Local Government Area of Ebonyi State, Secondary Schools simply means that teaching should carry a definition of computer during learning for easy understanding. Teachers in Nigerian secondary schools cannot implement computer education because majority of the teachers are not competent in basic computer operation and in the use of simple application software. Teachers require access to information and communication technology (ICT) infrastructure for a number of reasons. These include their need to live as citizens in a world undergoing rapid and major transformations as a result of increased use of ICT, their need to embed ICT use in their teaching and administrative duties and, increasingly, their need to use ICT in their professional studies.

Aside from teacher competencies with regards to computer instruction, learners are also faced with a great number of problems which hinder their understanding of computer studies. It is on

this background that this study was conducted to bring to light these factors that militate against the effective learning of computer studies in secondary schools, and suggest ways to overcome the problems for a more enhanced and effective teaching-learning process.

Statement of the Problem

Researchers has looked at the teachers' method of teaching, teachers' characteristics, teachers attitude and students' attitudes towards education and its attendant effects on academic performance of students as a result of the failure rate, the teaching process seems to move from teacher centred to student-centred method of teaching, yet the story almost remain the same many studies have revealed that students have poor attitude towards education and as a result of that academic performance is affected negatively. Hence, for many years now in Nigeria, many people are in doubt of the quality of products of her education from primary, post primary and tertiary institutions. Education discourse on poor academic performance seems to be the issue of the day. Minds that saw the possibility of turning this vast globe too large to be explored into a global village, where the distance between two ends could be reached in split seconds. These changes have motivated the modern society to become comfortable with basic computer related skills.

Given this scenario, it is necessary for this study to look into the problems hindering effective teaching and learning of computer science in Junior Secondary Schools in Ikwo Local Government Area of Ebonyi State. The question to be answered by this study is: what are these problems that have hindered the effective learning of computer studies in Junior secondary schools?

Research Questions

The following questions were asked to guide the study

1. What are the problems facing teachers and students during teaching and learning of computer in Junior Secondary Schools in Ikwo local government area of Ebonyi State State
2. What are the various types of instructional materials used in teaching–learning of computer science in senior secondary schools in Ikwo Local Government Area of Ebonyi State?

Review of Related Literature

Concept of Computer Science

Men whom through their great inventions conquered the barrier of time and distance, through whose inventions one of the greatest gift to mankind was delivered, I would take a deep breath at this point to mention "The computer". Thanks to Charles Barbbage, John Nappier, Lady Ada Lovelace, and others for such great inventions. Without the computer, our world could not be complete, education with all its great prospects as a process of successfully training the young and instilling the moral values and otherwise into them could never be complete. Perhaps computer literacy may improve the knowledge and ability of students for higher academic performance. Computer literacy is the knowledge and ability to use computer and technology efficiently. Computer literacy can also be referred to the comfort level someone has by using

computer programs and other application that are related to computers. The occurrence of computer literacy continues to grow at an outstanding rate. A computer is an electronic device that has the ability to accept data, store data, process data by following a set of instructions (program) to produce result. Computer always change; they become smaller, faster and more powerful.

Concept of Computer science like every other aspect of natural science requires more of the students engaging in the observational and practical method of teaching. The teacher on his part should be equal to the task of not only ensuring that he or she monitor the behavioural change on the students in the processes of learning but also be in total compliance to the current technology in the computer world. According to Ezeora (2016), the level of computer literacy one attains gives one an edge over his or her counterparts with less level of computer literacy. Impact the desired knowledge of computer is no less the responsibility of both the teacher and learner hence, both have outstanding roles they play not only in acquisition of literacy but in the overall development of the educational system.

The Federal Ministry of Education has launched an ICT-driven project known as school Net (www.Snng. Org) Fed. Republic of Nigeria, (2006) which was intended to equip all Schools in Nigeria with computer and communication technologies.
But the big questions are, "how can these policies and initiative of government be implemented, who are those that will take the pains to bend low to learn, and those that are capable to handle the course the way it will interest student". Which have being the problem in the education sector, and topic of this study? But in this study too, Nigeria is going to see those problems one after the other and how they can be solved. Government policies and initiatives may have impact on teacher and students may advance.

The term *computer* came to refer to the machines rather than their human predecessors. As it became clear that computers could be used for more than just mathematical calculations, the field of computer science broadened to study computation in general. Computer science began to be established as a distinct academic discipline in the 1950s and early 1960s. The world's first computer science degree program, the Cambridge Diploma in Computer Science, began at the University of Cambridge Computer Laboratory in 1953. The first computer science degree program in the United States was formed at Purdue University in 1962. Since practical computers became available, many applications of computing have become distinct areas of study in their own rights.

Although many initially believed it was impossible that computers themselves could actually be a scientific field of study, in the late fifties it gradually became accepted among the greater academic population. It is the now well-known IBM brand that formed part of the computer science revolution during this time. IBM (short for International Business Machines) released the IBM 704 and later the IBM 709 computers, which were widely used during the exploration period of such devices. During the late 1950s, the computer science discipline was very much in its developmental stages, and such issues were commonplace.

Time has seen significant improvements in the usability and effectiveness of computing technology. Modern society has seen a significant shift in the users of computer technology, from usage only by experts and professionals, to a near-ubiquitous user base. Initially, computers

were quite costly, and some degree of human aid was needed for efficient use—in part from professional computer operators. As computer adoption became more widespread and affordable, less human assistance was needed for common usage.

Concept of a Teacher and Teaching Effectiveness

A teacher is a nation builder. He or she is accountable to the students or pupils, parents, community, employers and to the teaching profession. A trained teacher is expected to be responsible and initiative. He or she should be able to put in his or her best without having to be pushed around. Ikediugwu (2013) asserted a **teacher** is an Instructor, role model, also called a school **teacher** or, in some contexts, an educator) is a person who helps students to acquire knowledge, competence or virtue. Informally the role of **teacher** may be taken on by anyone.

Teaching effectiveness is important because effective teaching helps student learning. It has become even more important as the emphasis on quality in higher education has increased. Effective teaching does not occur by chance. Effective teachers have become good at what they do because they evaluate their practice. James (n/d) suggests that "educational evaluation is a professional responsibility for academic staff, arising from a commitment to understanding the effects of teaching on students and to enhance student learning." There are numerous ways of evaluating teaching or monitoring its effectiveness.

Nwankwo (2015) identifies "twelve potential sources of evidence of teaching effectiveness." These include:

- Student ratings (such as Student Evaluations of Teaching);
- Peer reviews;
- Self-reviews;
- Videos of practice;
- Interviews with student;
- Alumni, employer and administrator ratings;
- Teaching awards and scholarship;
- Learning outcome measures; and
- Maintenance of teaching portfolios.

The sources identified above provide a diverse range of measures of teaching effectiveness. Institutions, departments and schools encourage a broad range of sources to evidence good teaching practice. The source that is used depends on why teaching effectiveness is being measured. For example, if the intention is promotion then a review may be performed by a supervisor using a specific set of criteria which aids in making a summative decision on the academic's effectiveness. If the objective is to improve teaching practice and to modify the teaching plan or structure then a different set of criteria is applied. For example, a number of student evaluations may be used to determine which aspects of teaching are effective.

The significance of computers in school

Although teaching computer studies is seen as essential in the world today, the significance of computers in schools needs to be examined. Many schools and other educational organizations

are investing heavily in computer technology and teaching in both developing and the developed countries (Chapman, 2008)

One of the advantages of teaching Computers studies and its knowledge are to transform communications and the economy (McMahon, 2010). It is also of great importance that every child should be exposed to this technology so as to understand the significance of this technology. (Roszell, 2015), Every high school student should know how to use a computer and the Internet, understand how a computer works, have some grasp of how to find information on the Internet, and generally know how computers are used by the businesses, the government, educational institutions and people in their homes. As stressed by Palfrey & Gasser (2008), at a bare minimum, students should know how to type, how to use a word processing application because this is the generation of the digital natives that lives by and in the digital

Problems hindering effective computer teaching in secondary schools

The effective teaching of computer studies in secondary schools and its implementation worldwide gives rise to another important puzzle as to what could be the significant factors that would influence its effectiveness Olaitan, S.O. and Uzuegbunam, C.O. (2018). It has been observed that there are a good number of factors which when carefully handled down will help in making the computer teaching smooth, effective and interesting. Therefore some of these factors includes:

1. Availability of trained and qualified personnel to teach the students.
2. The availability of the equipment to be used by both teachers and students during the process of teaching and learning.
3. A well established infrastructure to support the teaching.
4. The availability of reliable source of power. When these factors are put in place the computer teaching program will always be successful.

Theoretical Framework

In administration, theories are usually classified according to their historical development. Based on this four main classes of administrative theories are identified these are human relation, the system theory, scientific and classical management. Scientific and Classical Management Theory the scientific and classical management theories were the earliest administrative theories. The theories emphasize productivity of the worker. A worker was seen only as a worker or as a tool for production. The workers interests and aspirations were completely suppressed and left outside organizational programs Olaitan and Uzuegbunam, (2018. Scientific management theory stated that increase in specialization and division of labor will make a process more efficient. The theory also suggests that for effective management in an organization, workers with the right skills and abilities for specific task should be thoroughly trained to follow the lay down procedures. In addition to this, the exponents of this theory believe that there should be written procedures performed in an organization. These written procedures should be followed in supervision to ensure quality control. Finally, the scientific management theory argues that management and workers are equally responsible for achievement of set goals in an organization, industry or institution of government. Other writers have contributed to the development of scientific management theory like Obayi (2018) described management as the process through which an organization's strategy is formulated and is then implemented through the organization

of work, people, finance and technology. Egbe in Ogbonnaya and Ajagbaonwu (2017) noted that management anywhere in the world involves the marriage of labor, infrastructure and other resources and the effective supervision of that marriage is to produce results. This study uses the scientific management theory to the management of learning resources in junior secondary schools in Nigeria; it is obvious to say that efficiency in management of learning resources is associated with the views of exponents of scientific management theory that "increase specialization and division of labor will make a process more efficient". In an educational system, there is the need to ensure that teachers or instructors are given the roles that corresponds with their area of specialization in primary schools. For example, an instructor or teacher that specialized in physical and health education should be allowed to manage the learning resources associated with sports and health education. This will enhance efficiency in the management and teaching of health and physical fitness in schools. On the issue of division labor, it is proper to ensure that there is division of labor in any organization for efficiency. Divisions of labor ensure productivity and efficiency in service delivery. Division of labor of management of learning resources in primary schools is not left for one person or group of persons to do. Every teacher or instructor through the process of division of labor has a role to play to ensure effective management. In the management of learning resources like visual aids, auditory aids, audio-visual aid, simulation devices etc, workers with the right skills and abilities for specific task should be thoroughly trained to follow the lay down procedures. This will enhance learning and ensure the preservation of these learning resources. Also written procedure for each task that is performed in junior schools will help in supervision, this will lead to effective quality control.

Empirical Framework

The sub-section looks at research works that have been carried out on topics related to the present topic.

Oyelami (2019) investigated teachers' utilization of Basic Science equipment in JSS in Oyo State. The study was a survey research that covered all the junior secondary schools supplied with introductory technology equipment in Oyo State. The population comprised 565 teachers and the 8,704 students of JSS III who offer introductory technology. The sample consists of 404 teachers and 400 JSS III students introductory technology that were drawn through stratified and systematic sampling procedures respectively. A questionnaire was used for data collection. The mean statistics, t-test analysis of variance (ANOVA) and Scheffe's test were used for data analyses. The results revealed that students have not been benefiting much from the teachers' utilization of introductory technology equipment in JSS. Results of the t-test and ANOVA showed that there were no significance differences in the skills acquired by respondents from the urban areas and those from the rural areas. It was recommended that more technology equipment be installed in JSS and that available equipment periodically overhauled. Willing to teach the computer as a subject in the schools and computer teachers were inadequate considering the student enrolment; there is a negligible number of in-service computer training programs for teachers in the schools and phobia of computers is another significant factor for resenting the subject.

Adeniyi, (2018) examined the impact of PowerPoint on the students' classroom experience. While they found no differences in grades as a result of the use of PowerPoint in the classroom, they did find that students in PowerPoint- enhanced classrooms responded differently to the

classroom experience. Specifically, students believed that the PowerPoint classes were better organized and more interesting. Students also rated the professor high overall and indicated that they would be more likely to take another class from that professor. Interestingly, students in PowerPoint enhanced courses also found that the instructors exhibited more positive behaviors seemingly unrelated to the use of technology, such as providing helpful feedback in a timely fashion and creating assignments that involve higher order more critical or creative thought. Furthermore, Atkins-Sayre, Hopkins, Mohundro, and Sayre (1998) concluded that the use of technology adds to the instructor's credibility. Lecturers can manage class time more efficiently as less time is spent writing on whiteboards or changing transparencies (Daniels, 1999, Mantei, 2000), and thus lectures may flow better.

Overall, Appersonot al (2006) believe that the use of technology in classrooms uses 'students to have a more favorable attitude toward their education, and benefits accrue to instructors who utilize it in their classes.

However, technology usage does not necessarily result in better teaching evaluations for faculty. Lowerison et al found no significant relationship between actual computer use and perceived effective computer usage on course evaluations (2006). Several explanations were offered for this unexpected outcome, including the fact that students may now expect technology to be used in the classroom and no longer see it as a unique class feature that enhances their learning. These findings are consistent with the Christensen (1999) study mentioned earlier. It may also be the case that technology is not being used in an appropriate manner, that is, as a transformative, student-centered tool for learning, a concern expressed by Burbules and Callister (2000).

Research Method

The research design is school survey was utilized because it facilitated in collecting a large amount of data from a sizeable population. A school survey research design provided guidance for a comprehensive study of existing educational conditions undertaken to determine the overall effectiveness of the school programme with a view toward improvement where indicated (Singh, 2016). The area of the study is situated at Ikwo Local Government Area in Ebonyi State. The population of the study was one thousand, two hundred (6,900) students from twenty (12) secondary schools in the local government area. Out of the above population, two hundred (120) pupils (respondents) were randomly selected as sample population. A structured questionnaire was distributed to the students of both sexes. The researcher engaged an assistant to help in the face to face distribution of copies of the questionnaire to the 120 respondents. There were allowed a week to complete the questionnaire, after which they were collected. The entire questionnaire was collected. None was lost.

However, the score for each respondent was obtained by using the modified likert type scale with assigned values as follow:

Strongly Agreed - SA = 4
Agree - A = 3
Disagreed - D = 2
Strongly Disagreed - SD = 1

Decision Rule

The decision rule of this study is done in the way that any value above 50% or the mean score of 2.5 is agreed. While any value that is less than 50% or the mean score of 2.5 is disagreed.

Data Analysis

This involves the presentation of data which represents responses given by the respondents in the questionnaire which were distributed to them. These responses were subjected to analysis using statistical techniques. The results of these tests were useful in providing answers to research question formed to serve as guide to the research work.

Research Question One

What are the problems facing teachers and students during teaching – learning of computer science in senior secondary schools in Ikwo local government area of Ebonyi State?

Table 1: Mean Reponses on the problems facing teachers and students during teaching and learning of computer in Junior Secondary Schools in Ikwo local government area of Ebonyi State State**?** **N = 120**

S/n	Items	Mean	Decision
1.	Poor teaching methods causes students to loose interest to the lesson	2.65	Agreed
2.	Unavailability of teaching aids makes the lesson much more difficult to understand	2.73	Agreed
3.	Unavailability of electricity	2.90	Agreed
4.	Inadequate learning environment and improper class size makes the students to lose concentration from the lesson	3.11	Agreed
5.	Teachers with poor qualification cannot adequately and effectively teach the students to the required standard.	3.17	Agreed
	Grand Mean	2.91	Agreed

Source: Researchers Computation 2020

The table one above shows the problems facing teachers and students during teaching – learning of computer science secondary school students in Ikwo local government area of Ebonyi State. The analysis yielded a positive result with the following mean scores 2.65, 2.73, 2.90, 3.11 and 3.17 for items 1-5 respectively. The respondents agreed to the items implying that Poor teaching methods causes students to lose interest to the lesson, unavailability of teaching aids makes the lesson much more difficult to understand, inadequate electricity, inadequate learning environment and improper class size makes the students to lose concentration from the lesson, teachers with poor qualification cannot adequately and effectively teach the students to the required standard.

Research Question Two

What are the various types of instructional materials used in teaching–learning of computer science in senior secondary schools in Ikwo local government area of Ebonyi State?

Table 2: Mean responses on the types of instructional materials used in teaching–learning of computer science in junior secondary schools . N = 120

S/n	Items	Mean	Decision
6	Computer machines in a well equipped computer laboratory.	2.85	Agreed
7	Textbooks	3.01	Agreed
8	Charts	2.88	Agreed
9	Diagrams	2.68	Agreed
10	Computer accessories	2.79	Agreed
	Grand Mean	2.84	Agreed

Source: Researchers Computation 2020

Table 2 shows the responses on the instructional materials used in teaching and learning of computer in secondary schools in Ikwo Local Government Area of Ebonyi State. The respondents agreed to the items implying that Computer machines in a well equipped computer laboratory, Textbooks, diagrams, computer accessories and charts can help to effectively teach the students to the required standard.

Summary of the Findings

The following were summarized from the findings above

The decision implies that practical method, demonstration method, project method, discovery method and discussion method are the best methods of teaching and learning of computer in Ikwo local government area of Ebonyi State.

1. The respondents agreed to the items implying that Poor teaching methods causes students to lose interest to the lesson, unavailability of teaching aids makes the lesson much more difficult to understand, inadequate electricity, inadequate learning environment and improper class size makes the students to lose concentration from the lesson, teachers with poor qualification cannot adequately and effectively teach the students to the required standard.
2. The respondents agreed to the items implying that Computer machines in a well equipped computer laboratory, Textbooks, diagrams, computer accessories and charts can help to effectively teach the students to the required standard.

Discussion of Findings

The research question one sort to identify the teaching methods used by the teacher during computer classes in Ikwo Local Government Area of Ebonyi State. Secondary Schools in Ikwo Local Government Area of Ebonyi State, from the analysis the results revealed that the decision implies that implies that practical method, demonstration method, project method, discovery

method and discussion method are the best methods of teaching and learning of computer in Ikwo Local Government Area of Ebonyi State. The study of Onabamiro, Omoruyi, Soyingbe, and Rosiji (2013) investigated the psychosocial factors Predicting Secondary School students' academic self-efficacy in Lagos State. His result indicated that computer has to be thought using practical method, demonstration, discussion, project and discovery method can change the study habit, career aspiration and parental involvement have significant effect on academic self-efficacy; each independent variable made significant relative contributions to the academic self-efficacy of students and there is significant relationship among study habit, career aspiration and parental involvement and academic self-efficacy, thereby supporting the claim and findings of the researcher. To further point out how computer has improve students in secondary schools

The research question two was formulated. The analysis made in the research question two yielded the results explaining that the instructional materials used in teaching and learning of computer in secondary schools in Ikwo Local Government Area of Ebonyi State. The respondents agreed to the items implying that Computer machines in a well equipped computer laboratory, Textbooks, diagrams, computer accessories and charts can help to effectively teach the students to the required standard. Alimi, Ehinola, and Alabi, (2012) discovered that poor provision of instructional facilities in public schools accounts for the poor academic standard. The study revealed that there is a significant difference in the facilities available between public and private senior secondary schools.

The third and final research question was designed to ascertain the factors militating against teaching and learning of computer in senior secondary school in Ikwo Local Government Area of Ebonyi State. Lack of computer machines, poor teaching methods causes students to lose interest to the lesson, lack of computers, lack of electricity, inadequate learning environment and improper class size makes the students to lose concentration from the lesson, teachers with poor qualification cannot adequately and effectively teach the students to the required standard.

Aremu and Sokan (2003) posit that the search for the causations of poor academic achievement is unending and some of the factors they put forward are: motivational orientation, self-esteem/self efficacy, emotional problems, study habits, teacher consultation and poor interpersonal relationships.

Conclusion

The researcher concluded sort to identify the teaching methods used by the teacher during computer classes in Ikwo Local Government Area of Ebonyi State. Secondary Schools in Ikwo Local Government Area of Ebonyi State, from the analysis the results revealed that employing teachers with computer literate, Training and retraining of teachers, provision of computers in schools, equipping computer laboratory and maintaining the systems has made improve education in Nigeria. Poor teaching methods causes students to lose interest to the lesson, lack of computers, lack of electricity, inadequate learning environment and improper class size makes the students to lose concentration from the lesson, teachers with poor qualification cannot adequately and effectively teach the students to the required standard.

The analysis made in the research question two yielded the results explaining that the instructional materials used in teaching and learning of computer in secondary schools in Ikwo Local Government Area of Ebonyi State. The respondents agreed to the items implying that

Computer machines in a well equipped computer laboratory, Textbooks, diagrams, computer accessories and charts can help to effectively teach the students to the required standard.

Summary of the Study

This research work, designed to examine the identify problems hindering the Teacher's effective in teaching–learning of computer science in some junior secondary schools in Ikwo Local Government Area of Ebonyi State is predicated on two research objectives: To identify the problems hindering effective teaching and learning of computer science in Junior Secondary Schools in Ikwo Local Government Area of Ebonyi State. To identify the types of instructional materials used in the process of teaching-learning of computer science in Ikwo Local Government Area of Ebonyi State.

The study, after an extensive review of literature, adopted a survey design method to conduct the investigation. The questionnaire was analyzed and the results were presented. The discussion of the findings is presented in this section, along with the conclusion along with summary, suggestions for further studies and recommendation.

Recommendations

From the discussion of findings and conclusion above, the study recommends that:

1. Policy makers should consider as a matter of priority the issue of increased funding of secondary education in Nigeria. Increased funding will help to ameliorate problems facing teaching and learning of computer in secondary schools.

2. There should be increased training and re-training of teaching staff to improve their capacity to function effectively in the school system.

3. Authorities should ensure that adequate facilities be put in place in schools to reduce work over-load on teachers, which usually leads to undesirable consequences on the part of the teachers.

4. Efforts should be made by the authorities to redress disparities in incomes and working conditions among teaching staff in the school system. Workers of the same calibre and qualification should be treated alike.

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