



# Computer Education Research Journal (CERJ)

Volume 7: Issue No: 1 pp. 142-148, 2020

## APPRAISAL OF USE OF INSTRUCTIONAL MEDIA FOR IMPLEMENTATION OF COMPUTER STUDIES PROGRAMME IN SECONDARY SCHOOLS IN ENUGU STATE, NIGERIA

<sup>1</sup>Asogwa, Uchechukwu Ugochukwu and <sup>2</sup>Onyeidu, Samuel Osemedua

Department of Computer and Robotics Education  
University of Nigeria Nsukka, Enugu State, Nigeria

Email: [uchechukwuasogwa@yahoo.com](mailto:uchechukwuasogwa@yahoo.com); [samuel.onyeidu@ictuniversity.org](mailto:samuel.onyeidu@ictuniversity.org)

### ABSTRACT

*Education is an indispensable tool for personal and social development of any nation. The emergence of Information and Communication Technology (ICT) has revolutionized the way education is being accessed, processed, stored, retrieved and disseminated within organizations or across the globe. Whether it is vocal, pictorial, textual, numeric or macro- electric based, ICT is now pivotal in Nigerian education system. In view of this, several instructional delivery tools have been developed to aide teaching and learning of school subjects like computer studies in secondary schools. This study aimed at determining the extent of availability and use of instructional media in the implementation of computer studies programme in secondary schools in Enugu State, Nigeria. Two research questions guided the study. The sample size for the study was 791. Multi-stage sampling technique was used to determine the sample size. A structured questionnaire was used for data collection. A descriptive analysis was performed, where weighted mean was used to answer the research question two. Results revealed low extent of utilization instructional media by teachers and students in teaching and learning of computer studies programme Enugu State.*

**Key Words** – *Instructional Media, Computer Studies Programme and Secondary Education*

### Introduction

Education is an indispensable tool for personal and social development of all nations. Many countries in the world see education as a good investment for national development because it is expected to produce the required quantity and quality of human resources for economic growth. The Federal Republic of Nigeria through the National Policy of Education (FRN, 2013) recognizes education as an instrument par excellence for effecting national development. In order to actually effect national development, or the transformation of any society, available education must not only be qualitative but also functional. Hence, this research focuses on utilization of instructional media to ensure quality instructional

delivery of computer studies programme in secondary schools in Enugu State.

In Nigeria and other countries of the world, secondary education is the bridge between the primary and tertiary levels of education. Secondary school which provide the link between primary and tertiary levels of education is a crucial stage of education that requires serious attention and emphasis. The relevance of secondary education in Nigeria made the federal government to succinctly state the broad aims of secondary education in the National Policy on Education (FRN, 2013), to include among others to prepare individuals for useful living within the society and for higher education. The underlying principle here is that secondary education is expected to provide quality

education to all those that pass through it. Ekundayo (2010) saw secondary schools as not living up to their expectation based on the fact that there are lots of problem areas that have been identified by different researchers. These include; irregular power supply, inadequate computer literate teachers, inadequate fund, reluctance to change among others. To avert these problem areas, the National Policy on Education (2013) posited that, for the secondary school level of education to be efficient and effective, the teaching and learning process must be standardized by the use of instructional media.

The need for instructional media at secondary school level was clearly stipulated in the National Policy on Education, that each state and local government authority should establish Teachers' Resources Centre, where teachers will meet for discussion, investigation, study, workshops and conferences and that these centers shall also be used for the development and testing of teaching materials (FRN, 2013). Despite this declaration, it is interesting to note the level of instructional media available in schools.

The instructional media available for the implementation of computer studies programme varies from one school to another. Instructional media in schools are often valuable and therefore must be provided for effective teaching and learning. Ajayi and Ayodele (2011) stressed the importance of availability of instructional media in achieving effectiveness in educational delivery and supervision in the secondary school system. Enaigbe (2009) noted that basic media such as textbooks, chalkboard and essential equipment like computers, projectors, televisions and video machines are not readily available in many schools. Esu, Erukoha and Umoren (2014) agreed that instructional media are indispensable to effective teaching and learning activities and that they are always useful in supporting the sense organs. Despite the fact that instructional media are essential tools that can make learning practically oriented and knowledge acquisition easier, they are not readily available in Nigerian secondary schools and schools in Enugu State are not left out.

Instructional media, both in printed, audio and visual types are of fundamental importance to the success of teacher education programmes because effective teaching cannot be carried out without them. Modern teaching-learning demand

that the necessary facilities, well qualified teachers, suitable texts and instructional media needed to achieve the aims and objectives of teaching at all levels should be made available. Provision or presence of these media is of great importance enhancing better and effective teaching and learning in schools (Ololube, 2006). Ololube further stated that the truth is that teachers find it difficult to use the instructional media effectively in imparting knowledge to the students. The resultant effects of this is the low knowledge and skills acquisition and subsequent poor performance of students in both internal and external examinations on computer studies.

The utilization of the available instructional media for implementation of computer studies programme in teaching and learning situation involves not only the sense of hearing but also the senses of sight and touch. Since the ultimate aims of using instructional media is to enhance learning, their effective utilization is necessary in the teaching-learning process. These media do not achieve any of these values alone except when utilized effectively by competent teachers, Ezeani (2017) outlined the following principles that guide the use of instructional media to include: any instructional media chosen must make direct improvement to the lesson or class work in progress; the teaching media must be relevant to the specific objectives of the lesson; instructional media for the lesson on visual and tactile awareness must be chosen from two or three dimensional forms; students must be adequately prepared for the media use. Such preparation is to be based on the teachers' familiarity with the media chosen. It is important to note that in using the media students must be identified and communicated prior to commencement of use; excursion and field trips must be so planned to be hitch free and to allow students maximum benefits from such trips; there must be variety in the kind of media used and the effect of the use of media must be evaluated to establish both validity and efficiency; safety precautions must be taken when using all media; students should be involved whenever possible in the preparation of instructional media; when using pictures, they must be authentic, truthful, accurate, simple and large and that when using any teaching media, consideration should be given to the class size and number relative to space and amount of such media available.

Instructional media are used by teachers to

aid explanations and make learning of subject matter understandable to students during teaching learning process and several studies carried out in some areas in Nigeria indicated that the results of Senior School Certificate Examinations were completely bad in nearly all subjects offered by the students apparently due to lack of use of instructional media (Oluwagbohunmi & Abdu-Raheem, 2014). Oluwagbohunmi and Abdu-Raheem further stressed that only about 10% of candidates meaningfully passed the examination and that non availability and inadequacy of instructional media are major causes of ineffectiveness of the school system and poor performance of students in schools. Ogbondah (2008) alerted on the gross inadequacy and underutilization of instructional media necessary to compensate for the inadequacies of sense organs and to reinforce the capacity of dominant organs.

Non-utilization, inadequacy and non-availability of learning resources had been identified by Afolabi and Adeleke (2015) to result in teacher's poor knowledge and use of expository method. Any effective utilization of instructional media requires that the instructional process be organized with a combination of people, materials, facilities and equipment for the realization of stated objectives. To ensure quality instructional delivery for the benefit of teacher and learner, secondary school requires appropriate use of a judicious mix of print, audio, visual, audio-visual and other media including textbooks, journals, magazines, periodicals, wall charts, posters, pictures, maps, globes, filmstrips, slides, projectors, graphs, radio, tape-recorders and televisions (Okam, 2013) for the implementation of computer studies programme. Garba (2014) affirmed that the utilization of instructional media helps bridge the gap between reality and the abstract. For effective instructional delivery, the teacher is encouraged and expected to effectively utilize relevant instructional media to make the teaching and learning process more interesting, effective, lively, and appealing to the learner. There is no doubt that media makes instructional delivery simpler and easier.

### Statement of the Problem

Effective implementation of computer studies programme depends among other factors on the use of instructional media in teaching and learning. It is observed however, that most teachers in secondary

schools preferred the expository method of teaching that is devoid of manipulation of instructional media in teaching and learning. Instructional media are known to facilitate effective teaching and learning. The effective utilization of instructional media in the computer studies lessons will be of great benefits to the learners in terms of improving computer studies learning outcomes.

Many problems in different dimensions, confront effective implementation of computer studies in Enugu State. Research evidence have shown these problems to include issues of use of instructional media in the implementation of computer studies programme in secondary schools. Furthermore, it had been observed that instructional media are inadequate and at the same time, teachers are not adequately prepared (Tella, 2017). Additionally, certain factors constrain both provision and utilization of instructional media in the implementation of computer studies programme such as instability of power supply, lack of technical know-how, etc. In the light of the above, there is need to appraise the implementation of the computer studies programme in secondary schools in Enugu State. Therefore, the problem of the studies put in question form is, what instructional media are available and are being utilized in the implementation of computer studies programme in secondary schools in Enugu State.

### Purpose of the Study

The main purpose of the study is to ascertain the extent of availability and use of instructional media in the implementation of computer studies programme in secondary schools in Enugu State. Specifically, the study seeks to determine:

1. The extent of instructional media available for implementation of computer studies programme in secondary schools in Enugu State;
2. The extent to which teachers and students utilize available instructional media in implementation of computer studies programme in secondary schools in Enugu State;

### Research Questions

The following research questions guided the study:

1. To what extent is instructional media

ME  
The  
desi  
sch  
the  
Jun  
188  
sch  
Mar  
201  
PPS  
pro  
sup  
sam  
sam  
the  
to p  
Enu  
urb  
each  
Nsu  
Ud  
(ba  
each  
zon  
whi  
pro  
Res  
Res  
To v  
sec  
Tab  
Stu  
S  
1.  
2.  
3.  
4.  
'Asog

available for implementation of computer studies programme in secondary schools in Enugu State?

2. To what extent do teachers and students utilize available instructional media in implementation of computer studies programme in secondary schools in Enugu State?

## METHODOLOGY

The study adopted descriptive survey research design. The study was carried out among secondary schools in Enugu state, Nigeria. The population of the study is 21,125. These comprise all the 20,937 Junior secondary school two students (JSS 2) and 188 computer teachers in 292 public secondary schools managed by Post Primary School Management Board (PPSMB) Enugu (PPSMB, 2019). The essence of using schools managed by PPSMB Enugu is to ensure uniformity in terms of program, curriculum, staffing, students' enrolment, supervision and available human resources. The sample size for the study was 791. Multi-stage sampling was used to determine the sample size. At the first stage, stratified random technique was used to place the urban and rural Education Zones in Enugu State into strata, and discovered that both urban and rural Education Zones have three zones each as follows; urban zones (Agbani, Enugu and Nsukka) and rural zones (Awgu, Ubollo-Affor and Udi). Simple random sampling technique (balloting) was used to draw one Education zone each from urban and rural zones. The sampled zones are Enugu and Udi Education Zones, after which the sample size was determined using the proportionate sampling technique to obtain 10% of

5541 teachers and students from Enugu Education Zone, which is 554 and 10% of 2366 teachers and students from Udi Education zone, which is 237. This gave a total of 791 for both teachers and students. A checklist and a structured questionnaire were used to collect data for the study. Checklist contained 15 items while the structured questionnaire contained 12 items. The instruments were faced validated by three specialists in the field. The data collected were analyzed using weighted mean for the research questions.

Research question one was answered using percentage (%) to determine the availability of instructional media for implementation of computer studies programme in Enugu State while research question two was answered using mean scores. Mean score that was within the real limit of 4.00 - 3.50 was adjudged Very High Extent (VHE) and 3.49 - 2.50 was adjudged High Extent (HE) while 2.49 - 1.50 was considered Low Extent (LE) and 1.49 - 1.00 was considered Very Low Extent (VLE) for the extent to which teachers utilize available instructional media in implementation of computer studies programme. Seven hundred and ninety-one (791) copies of the questionnaire were distributed in seventy-six (76) public secondary schools under the selected education zones in Enugu State. Six hundred and thirty-eight distributed questionnaires were collected back by the researcher, making eighty-one per cent (81%) return rate. None of the collected questionnaire was discarded since all had the full information required in the study. The result of the study was obtained from the analysis of the data collected.

## Result

### Research Question 1

To what extent is instructional media available for implementation of computer studies programme in secondary schools in Enugu State?

**Table 1: Percentage of the Instructional Media availability for Implementation of Computer Studies Programme in Secondary Schools in Enugu State**

S/N	Items	UBEC Minimum Benchmark	No. of Schools	%
1.	Computer	1:2 Pupils	6	7.9
2.	Tape Recorder	1:1 Subject	4	5.3
3.	Television	3:1 School	42	55.3
4.	View Screen	1:1 School	34	44.7

5.	Internet services	1:1 School	12	24.2
6.	Multi-media projector	1:1 School	34	44.7
7.	Condenser microphone	1:1 School	17	22.4
8.	Digital video disc (DVD)	1:1 School	58	76.3
9.	CD – ROM	7:35 Pupils	32	42.1
10.	Electricity	80% during school hours	23	30.3
11.	Standby Generator	1:1 School	23	30.3

Table 1 showed that instructional media are not available or sufficient in most secondary schools for implementation of computer studies programme. Out of seventy-six (76) selected schools, the following number of schools with its respective percentages met UBEC minimum benchmark; 6 schools with 7.9% - computer, 4 schools with 5.3% - tape recorder, 42 schools with 55.3% - television, 34 schools with 44.7% - view

screen, only 12 schools with 24.2% are connected to internet, 34 schools with 44.7% have multi-media projector, 17 schools with 22.4% - condenser microphone, 58 schools with 76.3% - digital video disc, 32 schools with 42.1% - CD-ROM, while only 23 schools do provide 80% electricity during school hours and also have standby generator.

### Research Question 2

To what extent do teachers and students utilize available instructional media in implementation of computer studies programme in secondary schools in Enugu State?

**Table 2: Mean ratings of the extent teachers and students utilize available instructional media in implementation of computer studies programme in secondary schools in Enugu State**

S/N	Item Statement	Mean ( $\bar{X}$ )	SD	Remark
1.	Computer	1.67	1.07	LE
2.	Tape Recorder	2.01	1.15	LE
3.	Television	1.43	0.82	VLE
4.	View Screen	1.20	0.57	VLE
5.	Internet services	1.17	0.57	VLE
6.	Multi-media projector	1.35	0.76	VLE
7.	Condenser microphone	1.54	0.91	LE
8.	Digital video disc (DVD)	1.40	0.86	VLE
9.	-	1.36	0.82	VLE
10.	Electricity	1.35	0.80	VLE
11.	Standby Generator	2.05	1.27	LE
	<b>Summary</b>	<b>1.50</b>	<b>0.87</b>	<b>LE</b>

**Keys:** LE Low Extent, VLE Very Low Extent, SD Standard Deviation

Also, Table 2 showed that instructional media that are available are not adequately utilized. This is revealed by the summary, which is the average mean of 1.50 with standard deviation of 0.87. Hence, utilization of available instructional media in teaching and learning of computer studies for

implementation of computer studies programme in secondary schools in Enugu State is low. This can be deduced from the means of items 1 to 11 as all the items have mean ratings of either low extent or very low extent.

## Discussion

The findings of this study showed that there is a low level of instructional media available for implementation of computer studies programme in secondary schools in Enugu State. The availability of computers observed in the study could be as a result of the equipping of Secondary Schools in Enugu state with computers by Enugu state government. This finding of inadequacy or low availability of instructional media is in line with studies of Yusuf, Bashire and Dare (2013) who found that there was a dearth of ICT facilities in Secondary Schools in Kaduna as there were only very few of such facilities available in most of the schools visited. On availability of internet, the result confirms Ajayi's and Ekundayo's (2009) observation that there are no functional internet facilities in most of the secondary schools in Ibadan- north. This study also affirms Enaigbe's (2009) study which noted that basic media such as textbooks, chalkboard and essential equipment like computers, projectors, televisions and video machines are not readily available in many schools. Hence, instructional media are not adequate or not available for implementation of computer studies programme in most secondary schools in Enugu State. This can be deduced from the low percentages (< 50%) on the items, except television and digital video disk (DVD). However, the availability of computer with 7.9% showed that computers are available but not adequate for implementation of computer studies programme in secondary schools in Enugu State.

The finding on the extent of use of instructional media for implementation of computer programme showed that instructional media are utilized to a low extent. The reason for the low utilization of instructional media in teaching and learning of computer studies could be the fact that these instructional media are not adequate or that teachers and students lack requisite information technology (IT) knowledge/skills. The finding is in support of that of Amuchie (2015) who reported that the extent of utilization of ICT resources in teaching and learning was very low. This present study is also in agreement with the findings of Eze and Aja (2014) who found that ICT devices were not adequately utilized in secondary schools in Ebonyi State. In addition, Eze and Aja further stated some reasons for low utilization of ICT in teaching and learning secondary school subjects to include but not limited to teachers'

incompetency, erratic power supply, low availability of ICT devices, poor internet connectivity, negligence and laxity of teachers and students towards utilization of ICT in teaching and learning.

## Conclusion

From the findings, this study established that instructional media for implementation of computer studies programme in secondary schools in Enugu State are not sufficient, including computer that are meant to be available and adequate in every school. However, the extent teachers and students utilize the available instructional media for implementation of computer studies programme in secondary schools in Enugu State is low.

## Recommendations

Based on the findings of the study, the following recommendations are made:

1. Government, non-governmental organizations, communities, schools and other well-meaning individuals should assist in the provision of all the instructional media for implementation of computer studies programme in secondary schools in Enugu State.
2. Principals and school administrators should encourage the utilization of available instructional media for teaching and learning of computer studies by giving incentives to teachers who uses instructional media to teach as this would encourage all teachers to become proficient in using instructional media for teaching computer studies in secondary schools.
3. Governments through relevant agencies in Ministry of Education should organize seminars and workshops for teachers and students to train them on the use of instructional media for teaching and learning. This will help teachers and students overcome negative attitudes toward the use of instructional media for teaching and learning process.

## REFERENCES

- Afolabi, S. S. and Adeleke, J. O. (2010). Assessment of resources and instructional materials status in the teaching of

- mathematics in south western Nigeria. *European Journal of Scientific Research*, 43(1), 406-410.
- Ajayi, I. A. and Ayodele, J. B. (2011). *An introduction to educational planning: Administration and supervision*. Ado-Ekiti: Yemi Prints Publishing Services.
- Ajayi, E. A. and Ekundayo, H. T. (2009). The Application of information and communication technology in Nigerian secondary schools. *International Non-Governmental Organization Journal*, 4(5), 281-286.
- Amuchie, A. A. (2015). Availability and utilization of ICT resources in teaching and learning in secondary schools in Ardo-Kola and Jalingo, Taraba State. *Journal of Poverty, Investment and Development*, 8(1), 94-100.
- Enaigbe, A. P. (2009). Strategies for improving supervisory skills for effective primary education in Nigeria. *Edo Journal of Counselling*, 2(2), 235-244.
- Ekundayo, H. T. (2010). Administering secondary schools in Nigeria for quality output in the 21st century. The principals challenge. *European Journal of Educational Studies*, 2(3): 187-192.
- Esu, A. E. O., Erukoha, O. I. T. and Umorem, G. U. (2014). *Curriculum development in Nigeria for colleges and universities*. Owerri: Whyte and Whyte Publishers.
- Eze, P. I. and Aja, S. N. (2014). Availability and utilization of information and communication technology (ICT) in Ebonyi Local Government area of Ebonyi state: implications for effective teaching and learning. *Educational Research*, 5(4), 116-121.
- Federal Republic of Nigeria. (FRN, 2013). *National Policy on Education*. Lagos: NERDC Press.
- Garba, M. (2014). *The critical role of educational resource on curriculum implementation*. In A.K. Noah et al (eds) curriculum implementation and professionalizing teaching in Nigeria. Lagos: Central education services.
- Naz A. A. and Akbar, A. R. (2017). Use of media for effective instruction its importance: Some consideration journal of elementary education. *A Publication of Deptt. of Elementary Education IER, University of the Punjab, Lahore-Pakistan*, 18(1-2), 35-40.
- Ogbondah, L. (2008). An Appraisal of instructional materials used to educate migrant fishermen's children in Rivers State, Nigeria. *International Journal of Scientific Research in Education*, 1(1), 13-25.
- Okam, C. C. (2013). Asserts intrinsic in curriculum paradigm structures for positioning social studies education as an innovation for meeting human resource development challenges in 21st century Nigeria. In E. Kpangban, P.E. Eya and P.C. Igbojinwaekwu (eds) *Reforms and innovation in Nigerian education*. Onitsha: West and Solomon publishing Company Ltd.
- Ololube, N. P. (2008) Computer communication and ICT attitude and anxiety among higher education students. In A. Cartelli, (Ed). *Encyclopedia of information and communication technology*, pp.100-105. Hershey, PA: Idea Group Publishing.
- Oluwagbohunmi, M. F. and Abdu-Raheem, B. O. (2015). Pre-service teachers' problems of improvisation of instructional materials in social studies in Ekiti State University. *Journal of Education and Practice*, 6(3), 160-163.
- Tella, A. (2017). Availability and use of ICT in South-Western Nigeria Colleges of Education. *International Multidisciplinary Journal, Ethiopia*, 5(5), 315-331.
- Yusuf, M. O. and Balogu, M. R. (2011). Student-teachers' competence and attitude towards information and communication technology: A Case Study in a Nigerian University. *Contemporary Educational Technology*, 2(1), 18-36.