

ASSESSMENT OF IMPLEMENTATION OF ICT –DRIVEN SECONDARY EDUCATION IN OWERRI MUNICIPAL COUNCIL OF IMO STATE TOWARDS NATIONAL DEVELOPMENT

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Abstract

Nigeria is under pressure to erase her name in the committee of underdevelopment countries of the world. As development in this global era is controlled by ICT, Nigeria is committed to enhancing ICT in human capacity development which will translate to national development. To this end, it was planned that ICT should be introduced to all levels of education. This descriptive survey study was undertaken to ascertain the level of implementation of computer education in secondary schools as stipulated in the National Policy on Education (2004). 140 teachers were sampled from the population of 325 teachers in the 24 Junior and Senior secondary schools in Owerri Municipal Council of Imo State using proportionate random techniques. Instrument for data collection was a 2-section questionnaire which was complemented with direct observation and questioning. Items of the questionnaire sought to obtain information on the availability and use of ICT facilities by teachers as well as the teaching of computer education in schools. 3 research questions guided the study and analyses of data were in frequency counts, percentages, means and standard deviation. Result showed a dismal situation indicating that the computer education program had not yet fully commenced in secondary schools. ICT facilities were not available and computer education teachers were lacking. It was recommended among others that computers and computer teachers should be provided in schools.

Information Communication Technology has in this global age become the parameter for modernization and advancement of countries of the world. Sound and functional educational system is judged by its ability to connect and communicate ideas with the outside world, beyond its domicile environment. Obioma (2011) argued that it is on this premise that comparability of standards and global competitiveness are made possible. As no nation can develop beyond its educational system (Ikeotunonye, 2011). It becomes necessary to incorporate ICT in education to enable Nigeria take her rightful place in the international community of developed countries. In pursuance of this objective, the National on Education (FME 2004: 54) directed that there should be a network of educational services in Nigeria to provide exchange of ideas on the development and use of innovative materials for improvement of education. To this end, Teachers Resource Centres, University, Institutes of Education and other professional bodies shall belong to the network of ICT. The document further stated that government shall provide facilities and necessary infrastructures for the promotion of ICT at all levels of education. In implementing this plan, computer education was introduced to be taught in secondary schools. It is about 9 years into the implementation of this plan and it is worthwhile to assess the programme to ascertain the degree of success and/or areas of remediation.

Information Communication Technology (ICT)

This consists of digital soft and hardwares that help in expanding access to information. It makes use of variety of devices which according to Unachukwu, Nwosu and Nwasor (2011) include computer set, flash drive, CD-Rom, filmstrips, television and radio sets, Digital video device (DVD), video recorder and projector. Others are phones, electronic mails, Internet and MP3 games. Indeed, any device that helps to store, retrieve and disseminate information belong to ICT facilities. These facilities are used to facilitate interconnectivity within and across the nations of the world. Who before now had through their educational system taught their students how to produce and use ICT are described as developed while other are still struggling to reach where they are. Mabakwem (2010) opined that imparting ICT knowledge to the students will secure the future development of our dream. In terms of its usefulness in lesson delivery Obasi (2011) reiterated that ICT connects school to the world, accelerates and enriches basic skills of the students. She concluded by arguing that ICT motivates and improves self concept and innovative thinking in students. Affirming, Mbakwem (2010) added that integrating ICT in lesson delivery makes teaching and learning more students-centred. Indeed, ICT arouses students' interest and makes school processes exciting encounter leading to the achievement of objectives of secondary education which are meant to, among others;

1. Inspire students with a desire for self improvement and achievement of excellence
2. Provide technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development (FME 2004: 18).

These objectives are in recognition of the fact that national development in this global age

is driven by persons who are verse in ICT. It is not surprising that Nigeria which is in dire need of technological advancement should integrate ICT into her educational system. It is expected that both teaching and assessment of learning should be done via ICT irrespective of the teacher's field/subject of specialization. The idea is that a secondary school leaver who for some reasons could not further his/her studies to tertiary institutions would have acquired some technical and/or vocational skills to enable him/her contribute meaningful to national development. This is very possible if ICT facilities are available and are used in teaching him/her. Ezekoka (2007) found out that ICT facilities were lacking in schools in Imo State. Could there have been improvement considering the present Imo State government's promise to computerize all schools in Imo State (Okoocha, 2012)?

Purpose of the Study

The purpose of this study is to;

- a. Ascertain availability of ICT facilities in secondary schools in Owerri Municipal Council of Imo State.
- ii. Ascertain the use of ICT facilities by teachers in teaching and assessment of learning
- iii. Ascertain the extent to which students are exposed to ICT facilities in computer education delivery.

Research Questions

1. What ICT facilities are available in schools?
2. To what extent do teachers use ICT facilities in teaching and assessment?
3. To what extent is computer education taught in schools?

Method

This is descriptive survey carried out in the 14 junior and senior secondary schools in Owerri Municipality with 325 population of

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teachers (statistics division, Imo State Ministry of Education 20/2/12). For each school, the junior and senior sections share the same compound. They are two schools in terms of separate administrations. Through proportionate random sampling techniques 140 teachers representing 43% of the population were drawn from the schools to constitute the sample. Instrument for data collection was a 2-section questionnaire incorporate with modified 4-point likert rating scale prepared by researcher based on literature. Four (4) most senior colleagues who are professors in computer science and in Educational Measurement and Evaluation vetted the instrument. Those in computer science gave ideas on ICT facilities while those in computer science gave ideas on ICT facilities while those in measurement and evaluation vetted the items on the usage of ICT facilities in teaching and assessment. 10 teachers from two schools in Owerri North Local Government Area were used in trial testing the instrument, the reliability of which was ascertained by Cronbach Alpha to be .76. The first section was meant to obtain information on the availability of ICT in the school while the second section was to ascertain the teacher’s use of ICT facilities in lesson delivery and assessment, vis-à-vis students’ exposure to ICT facilities. Administration was face to face. Mode of response for the second section of the instrument was very high extent (4 points), high extent (3 points), low extent (2 points) and very low extent (1 point). The researcher used one week to distribute 140 copies of the questionnaire in second term of 2011/12 academic year. Given that the instrument was administered by self the research used the opportunity to make on the spot assessment and asked questions where necessary about the situation on ground. 137 were returned and used for analyses. Data in table one (1) were analyzed in frequencies and percentages and used to answer research question one. Standard deviation answered research questions 2 and 3. Mean

scores of 2.50 and above were described as ‘acceptable extent’ while scores below 2.50 were described as unacceptable extent.

Results

Research Question 1: What ICT facilities are available for use in schools?

Table 1: Frequencies and Percentages (in Parenthesis) of Responses Regarding Availability of ICT in Schools

S/N	ICT Facilities	Available for use in administration	Available for teaching the students	Not available
1	Computer sets	21(15.3)	30 (21.9)	86 (62.8)
2	Internet	None	None	137 (100)
3	e-mail	None	None	137 (100)
4	Radio	None	None	137 (100)
5	CDs	15 (10.0)	28 (20.4)	94 (68.6)
6	On-line library	None	None	137 (100)
7	Video recorder	None	None	137 (100)
8	Video projector	None	None	137 (100)
9	Power point	None	None	137 (100)
10	Flash drives	None	None	137 (100)

The data in table 1 above showed that 30 teachers representing 21.9% responded as having computer set in their schools. 21(15.3%) had computer set which were used in administration of the school while 86 (62.8) did not have computer. Apart from CDs which were available for office use 15(11.0) and for teaching 28 (20.4%) all other ICT facilities were not available in the sampled schools.

Research Question 2 and 3: To what extent do teachers use ICT facilities in teaching/assessment and to what extent is computer education taught in schools?

Table 2: Means and Standard Deviation of the Teachers' Use and Students' Exposure to ICT Facilities

S/N	Teachers	Mean	SD	Decision
1	Take students to computer Lab for practical	2.51	0.62	Acceptable extent
2	Demonstrate to students how computer works	2.64	0.71	Acceptable extent
3	Guide students to practice with computer	2.22	0.83	Unacceptable extent
4	Give students assignment to carry out using computer	2.04	0.69	Unacceptable extent
5	Teach students to store and retrieve information	1.50	0.57	Unacceptable extent
6	Organize ICT display day for students	1.20	0.42	Unacceptable extent
7	Invite independent ICT experts to talk to students on chosen	1.60	0.62	Unacceptable extent
8	Students are taught computer education as allotted in the timetable	2.06	0.49	Unacceptable extent
9	Teachers use ICT facilities in lesson delivery	1.80	0.70	Unacceptable extent
Grand Mean and SD		1.95	0.63	Unacceptable extent

The data in table 2 showed that the teachers do not make use of ICT facilities in lesson delivery (1.80). It also showed that students are neither adequately exposed to ICT facilities (items numbers 4-7) nor taught computer education as required (2.06). It was gathered that computer is taught to students only in schools that have computer laboratory. The junior students are taught in their classroom without physical computer. However, the grand mean (1.95) which is at the unacceptable extent indicates that teachers' use of ICT facilities and students' exposure to ICT facilities scarcely happen.

Discussion

The above results disclosed a dismal situation regarding the availability and use of ICT facilities in schools in Owerri Municipal

Council of Imo State. The situation is a far cry from what is expected in this ICT age. In schools where computer were found they were either provided by the MTN school-connect programme (two of the study schools were beneficiaries) or by the Old Boys Association in the case of Government College Owerri. Similarly, one of the study schools benefited from the federal Ministry of Education (FME-MDGs, 2010) programme carried out in some pilot schools whereby 'pamtops' (micro computers), were provided for students' practice. There were no computers provided by the Imo State government for teaching computer education to students. This shows that the promise to computerize schools by the present Imo State government (Okorochoa, 2011) is yet to be fulfilled. Unavailability of computer probably hindered the use of all other ICT facilities. However, in schools where computers were installed, results show that teachers do not use them in teaching their subjects. The Mobile Telecommunication Network (MTN) technical staff in charge of MTN school-connect programme in one of the schools explained that most teachers are not ICT-compliant although some of them came to him for coaching. He also complained about irregular power supply and high cost of fuel to operate the generator set. The FME-MDGs palmtops which can operate (if charged) when there is no electricity were at the time of this report not yet in use as the laboratory room was still being fortified. Schools lack computer teachers. The gist has been either that the student-teacher who was teaching students computer had left or that the computer teacher has been transferred or retired and there had not been a replacement. Computer has never been taught in 2 out of the 7 study junior secondary schools. The implication is that implementation of ICT-driven secondary school had not fully commenced in schools in Owerri Municipality. The results can be extrapolated to schools in the rural areas of the state especially as Ajuonuma

(2010) had confirmed that the necessary infrastructure for the promotion of ICT in the state were lacking. This result had a far-reaching negative implications on the desired national development. It means that the desire to move from undeveloped to a developed country is retarded because it is not matched with appropriate and timely actions. However, it is not yet late to begin if the following recommendations are headed to:

Recommendations

1. Government should make ICT facilities available to schools and provide steady power supply system.
2. Government should sponsor teachers to a holiday ICT training on how to integrate ICT in education delivery and assessment of learning.
3. Computer teachers should be employed and posted to all schools.
4. ICT technical staff is necessary to handle the students practical and assignment using ICT facilities.
5. Every school should set aside a day in a term known as ICT day when experts will be invited to explain the prospects of ICT to students.

References

- Ajuonuma, J.O. (2010). Assessment of the provision educational services under the UBE in primary schools in Imo State. *Proceedings of the 24th Congress of the Nigerian Academy of Education* 88-95
- Ezekoka, G.K. (2007). Evaluation of secondary school teachers' use of information and communication technology (ICT) for curriculum implementation. *Journal of Women in Academics (JOWACS)*, 4(1), 210-219 September.
- Federal Republic of Nigeria (2004). *National Policy on Education* NERDC
- Ikeotunonye, A. I. (2011). Preparing teachers for the challenges of Nigeria vision 20: 2020. *Proceedings of the 25th annual congress of the Nigerian Academy of Education* 27-44
- Mbakwem, J. N. (2010). Determining quality assurance through technology integration in upper basic social studies curriculum delivery for allaining millennium development goals. *Proceeding of the 24th congress of the Nigerian academy of Education* 126 – 142.
- Obasi, A. (2011). A keynote address presented at the Nigerian Association of educational media and technology (NAEMT) on Globalization of human capacity building through information and communication technology (ICT) Imo State University Owerri.
- Obioma, G. (2011). Driving the attainment of vision 20:2020 through human capacity development – A keynote address. *Proceedings of the 25th annual congress of the Nigerian Academy of Education*. 1 – 26.
- Okorocho, R.A. (2012). *The state of Imo address*. The government printer Owerri GPOL 13 2012/5000 February, 14.
- Unachukwu, G.Cs, Nwosu, K.C. & Nwasor C.V. (2011) Adolescents' access to ad preference on information and communication technology facilities for their learning. *The Educational Psychologist*, 5 (1) October.
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