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UTILIZATION OF ICT RESOURCES IN THE MANAGEMENT OF UBE IN SECONDARY SCHOOLS IN ANAMBRA STATE

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ABSTRACT

The study investigated the utilization of ICT resources in the management of UBE in secondary schools in Anambra State. Two research questions and one null hypothesis guided the study. Descriptive Survey research design was adopted for the study. The population for the study comprised 263 principals and 2873 junior secondary school teachers, simple random sampling technique was used to select three education zones and all the 138 principals and 843 junior secondary school teachers were sampled due to their size. A 21 item instrument titled Information and Communication Technology and Universal Basic Education Questionnaire (ICTUBEQ)" was used to collect data. The instrument was validated by three experts, two from educational management and one from measurement and evaluation all from faculty of education, Chukwuemeka Odumegwu Ojukwu University Igbariam. Over all reliability co-efficient of 0.71 was obtained. Data generated was analyzed using mean rating and standard deviation, while z-test was used to test hypothesis. Findings indicated that utilization of ICT will contribute to the effective management of UBE in Anambra State secondary schools. Another finding showed that high cost of ICT infrastructures and inadequate power supply are some challenges facing effective utilization of ICT in the management of UBE in Anambra State secondary schools. Among the recommendations was that government should provide adequate ICT personnel's and infrastructure in schools for effective management of UBE in secondary schools.

Keywords: information communication technology, Universal Basic Education, management, utilization.

Introduction

Education is seen as the pillar of economic growth and development in developing countries. Education is one of the biggest instrument for economic progress, social mobilization, political survival and effective technical development (Osegbue, Ohamobi & Manafa 2019). Education in every country

of the world has to be managed so as to reflect educational goals and objectives of any society or nation. Managing education in Nigeria today seems to be a big task as effective management of school most likely brings efficiency and quality in the school system. Management as the act of getting human and materials resources together to achieve the organizational goals involves different aspects, example, personnel management, infrastructure, finance, students' records and general administration. All these aspects need to be taken care of accurately for the smooth running of the school as the 21st century system of school management is mainly on accurate record keeping and computer age. This most of the time is done through computer though in most schools paper based documentation is still in existence and this causes some lapses in data analysis and record keeping. Durosaro (2004) emphasized that lack of accurate and timely data is an overriding factor and thus the bane of educational management in schools. Hence, the need for Information and communication management (ICT) in schools.

ICT provides important information required to manage a school effectively. It goes a long way in managing students and staff academic activities, school facilities and other important administrative programes. All these aspects need to be taken care of accurately for the smooth money of the school as the 21st century system of school management is mainly on accurate record keeping. This most of the time is done throughout computer through in most schools paper based documentation is still in existence and this causes some lapses in data analysis and record keeping. This was noted by Durosaro (2004) when he emphasized that lack of accurate and timely data is an overriding factor and thus the bane of educational management in schools. Thus the need for information and communication management (ICT) in schools.

Information Communication Technology (ICT) is a global connection of many different types of computer network linked together (Okolocha & Nwadiana 2015). Amuchie (2015) sees information communication technology as information handling tools that are capable of being used to generate, process, store retrieve, distribute and exchange information. The researchers see ICT as variety of modern technologies used for extracting, sharing, editing, collecting, communicating, retrieving and sending information in different ways. Different ways of doing this could either be through phones, computers, iPads, or different electronic gadgets. . They are also used for enhancing teaching and learning process. It helps a lot in giving the school management an overall view of the school and also contributes in finding out exactly what is going on in the school. It gives room for smooth and immediate pulling up of any form of school data in case of emergency. It goes a long way in managing students and staff academic activities, school finance and

other important administrative activities, ICT is necessary in gathering and processing of information, using modern communication technologies such as computers and other related equipment so that the service (output) generated can reach all that desire them at reasonable cost and in good time to the overall benefit of mankind (Aneakwe 2008). Effective utilization of ICT in schools makes school office activities more efficient, this is because it is used for the school management and providing teachers information and data needed for effective planning and decision making especially on Universal Basic Education programme.

Universal basic Education came into existence in Nigeria education system as a result of inefficiency of the Universal Primary Education to achieve its goals. UBE was instituted in 1999 by then President Olusegun Obasanjo. Universal Basic Education Act (2004) defined UBE as early childhood care and education, the nine years of formal education, adult literacy and non-formal education, skills acquisition programmes and the education of special groups such as nomads and migrants, girl child and women and almajari. Universal Basic Education is very important to human and national development and as such it should be implemented effectively and efficiently for achievement of the goal. Infor Guide Nigeria (2019) stated that UBE has aims which include providing free and compulsory education for children in primary and junior secondary schools, providing greater access to education, ensuring qualitative basic education in Nigeria, reducing the level of school dropout and improving relevance, quality, efficiency and acquisition of literacy, numeracy, values, life skills for long education and useful living. To achieve all these objectives required the need for maximum utilization of ICT. Utilization according to Okolocha and Nwadiana (2015) is the act of putting things or resources that are tangible or intangible to proper use but utilization in the context of this study is seen as putting something or resources into use.

Information and communication technology needs to be utilized in achieving these UBE aims because it will help a lot in keeping students record, getting student exact population, appropriate infrastructure and facilities needed. It also improves drafting of school time – tabling, provides computerized admission process, improves general administration like keeping proper financial account of the school, and provides important technology infrastructure for academic networking. It will also enable teachers, principals and students easy access to school data, encourages students to study independently, provides teachers with modern and necessary instructional materials for effective teaching, helps in facilitating students learning process faster in classrooms, encourages inclusive education and helps in enhancing students basic skills. The impact of computer in teaching and learning are enormous, it arranges instruction in such a way that learning is facilitated, help

the learners to interact individually or in a group for learning to take place, easy delivery of a lesson by the teacher helps learner to learn at their pace and place, helps learners to learn faster and better, broaden students' knowledge and level of understanding (Enwereji, Ohamobi and EmekaNwokeji 2022).

Ali (2015) confirmed that strengthening ICT at the base level will go a long way to help in capacity building. This was opined by Aneakwe (2008) when he stated that ICT provides resources and pedagogical frame work to enable students become effective independent learners. Moreover, the success or failure of effective management of UBE in Anambra state secondary schools may be attributed to the utilization of ICT in teaching and learning. Thus, the study tries to investigate utilization of ICT resources in the management of UBE in junior secondary schools in Anambra State.

Problem Statement

Effective implementation of UBE will be achieved if ICT is well utilized in schools however it seems that it is not well with ICT equipment/instruments at the UBE level. Moreover with UBE programme in schools, it seems that rate of school dropout and illiteracy rate are on the increase among school children. Level of skill acquisition appears to be dropping. It appears that principals and teachers cannot get detailed analysis of students' academics, their weak areas, exact students population, data for provision of academic materials and data driven insights to improve students' academic outcomes. This affects the students' academic performance and results to their poor performance in Basic Education Certificate sExamination (BECE). It is against this background that the researchers intend to investigate the utilization of ICT resources in the management of UBE in junior secondary schools in Anambra state.

Research Questions

The following research questions were formulated to guide the study:

1. To what extent does utilization of ICT contribute to effective management of UBE in Anambra State secondary schools?

2. What are the challenges of using ICT in the management of UBE in Anambra state secondary schools?

Hypothesis

The following hypothesis was formulated to be tested at .05 level of significance

HO1: There is no significant difference between the secondary school principal and teachers on the extent utilization of ICT will contribute to effective management of UBE in Anambra State Secondary school.

Research Method

The study adopted a descriptive survey design. The population of the study consisted of all the 263 principals and 2,873 junior secondary teachers from public secondary schools in the six education zones of

Anambra State, (Anambra State Post Primary Education Board PPEB 2022). The sample of this study consisted of 138 principals and 843 junior secondary schools teachers. Three education zones (Otuocha, Awka and Nnewi) were selected using sample technique and used for the study. All the 138 principals, and 243 junior secondary school teachers in the three selected zones were used as sample size. A self-developed instrument titled" Information and Communication Technology and Universal Basic Education Questionnaire (ICTUBEQ) was used for data collection. Section A had the personal data of the respondent while Section B had two clusters that addressed the research questions. The response format of the instrument was strongly Agree (SA) / Very High Extent (VHE) – 4 points, Agree (A) / High Extent (HE) – 3 points, Disagree (D) / Low Extent – 2 points and strongly Disagree (SD) / Very Low Extent – 1 point. The instrument was face validated by three experts, two from education management unit and one from measurement and evaluation unit in Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Igbariam.

The reliability of the instrument was tested using 10 principals and 20 junior secondary school teachers in Enugu State. The overall internal consistency reliability co-efficient index obtained through Cronbach Alpha method was 0.71, indicating that the instrument was reliable for the study. Data were collected through direct delivery method by the researchers with the help of three research assistants that were briefed on how to administer the instrument. This ensured a 100% return rate of the questionnaire administered. Mean and standard deviation were used to answer the research questions while Z-test was used to test the hypothesis at .05 level of significance. Decision rule was any item with 2.50 and above was acceptable and item below 2.50 was not accepted.

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Presentation of Result

Research Question 1: To what extent will utilization of ICT contribute to effective management of UBE in Anambra state secondary schools?

Table 1: Mean ratings of Principals and junior secondary school teachers on the extent utilization of ICT will contribute to effective management of UBE in Anambra state secondary schools.

S/N	ICT Contribution to management of UBE	Principals =138		Teachers=843		Dec
		X	SD	X	SD	
1.	It enhances school communication	2.82	1.02	2.65	1.00	GE
2.	It helps in visualization of content	2.52	0.98	2.88	1.04	GE
3.	Improves finance account for school	3.34	0.80	3.45	0.84	GE
4.	Get accurate students data	3.10	0.94	3.50	0.78	GE
5.	Having accurate students population	2.99	1.10	3.65	0.87	GE
6.	Contributes in getting appropriate ICT equipments and facilities needed	2.58	1.04	2.66	1.02	GE
7.	Enhances professional development of teachers	2.50	1.00	2.51	1.04	GE
8.	Enhances unlimited access to educational resources for teachers and students	3.06	0.98	2.89	1.07	GE
9.	Encourages research	2.82	1.02	2.65	1.00	GE
10.	Helps in having accurate number of teachers	2.70	1.08	2.80	0.89	GE
11.	Shows the areas teachers are needed most.	3.20	0.87	2.72	1.04	GE
	Grand Mean	2.96	1.00	2.81	0.98	A

Data on table 1 revealed that all the items rated above the acceptable mean of 2.50. The conclusion therefore, is that all the listed items are ways utilization of ICT will contribute to effective management of UBE in Anambra State secondary schools.

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Research Question 2: What are the challenges of utilizing ICT in the management of UBE in Anambra State secondary school?

Table 2: Mean ratings of principals and junior secondary schools teachers on the challenges of utilizing ICT in the management of UBE in Anambra State Secondary Schools.

S/N	Challenges	Principals =138		Teachers = 843		Dec
		X	SD	X	SD	
12.	Inadequate ICT personnel	3.25	0.78	3.32	0.78	A
13.	High cost of ICT infrastructure's	3.68	1.00	3.25	0.61	A
14.	Lack of adequate ICT maintenance	3.28	0.89	3.09	1.01	A
15.	Negative attitudinal disposition of staff towards resisting change	2.78	0.72	2.99	0.97	A
16.	Low internet connectivity	3.44	0.59	3.61	0.31	A
17.	Inadequate power supply	3.72	0.64	3.58	0.81	A
18.	Lack of ICT awareness	3.81	0.42	2.68	0.90	A
19.	Inadequate ICT training for teachers	3.49	0.69	3.22	0.51	A
20.	Poor motivation of teachers	3.75	0.74	3.67	0.66	A
21.	No effective government policy on the use of ICT in the educational system.	2.67	0.91	3.20	0.56	A
	Grand Mean	3.39	0.74	3.42	0.70	A

Table 2 showed that principals and junior secondary school teachers agreed to the ten items on the table as by their mean scores which are above 2.50 the decision rule. These shows that the above items are challenges of utilizing ICT in the management of UBE in Anambra State secondary schools.

Hypothesis: Table 3: z-test analysis of the differences in the mean scores of principals and teachers on the extent utilization of ICT will contribute to effective management of UBE in Anambra state Secondary Schools.

Sources	N	X	SD	Of	Z-Cal	Z-Crit	Decision
Principals	138	2.96	1.00	257	0.74	1.96	Accepted
Teachers	843	2.81	0.98				

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Analysis on table 3 revealed that with 257 degree of freedom, the calculated z-value of 0.74 is less than the table (Critical) value of 1.96 at .05 significant level. Therefore, the null hypothesis was accepted. This is an indication that there is no significant difference between teachers on the extent utilization of ICT will contribute to effective management of UBE in Anambra state secondary schools.

Discussion of Findings

The findings of the study on table 1 revealed that utilization of ICT will contribute to effective management of UBE in Anambra state secondary schools by enhancing school communication, helping in visualization of content, helping in having accurate number of teachers, having accurate students population, improving financial account of the school, getting accurate data of students, showing the areas teachers are lacking, contributing in getting adequate ICT facilities needed and encouraging research. This finding agrees with the study of Ali (2015) who emphasized that strengthening ICT at the base level will go a long way to help in capacity building. This finding also concur s with Aneakwe (2008) who opined that ICT provides resources and pedagogical framework to enable students become effective independent learners. The fact that utilization of ICT will contribute to effective management of UBE in schools, the tendency is that the goals and aims of UBE will be achieved. This shows that utilization of ICT in schools makes management of UBE effective. Hypothesis was tested using z-test and the calculated z-value was less than the critical value for the analysis on Table 3. The researcher therefore, had to accept the null hypothesis showing that the response of teachers and principals are not conflicting.

Table 2 revealed that there are challenges of utilizing ICT in the management of UBE in Anambra state secondary schools. Such challenges are: inadequate ICT personnel, high cost of ICT infrastructures, lack of adequate ICT maintenance, negative attitudinal disposition of staff towards resisting change, low internet connectivity, inadequate power supply, inadequate ICT training for teachers, poor motivation of teachers and no effective government policy on the use of ICT in the educational system. This finding is in line with Dike (2000) when he confirmed that UBE programme suffers from poor management ranging from death of qualified teachers to inadequate facilities. This finding is in conformity with Adunola (2010) who in his study, found out that inadequate infrastructural facilities and lack of qualified personnel (teachers) among others were responsible for poor implementation of UBE programme. This indicates that with these challenges UBE's objectives and goals cannot be achieved.

Conclusion

Universal Basic Education goals which include ensuring free formal education, uninterrupted years of primary and junior secondary school education, introduction to

rudiments of computer literacy, appropriate continuous teacher professional development needs utilization of ICT to be managed well in schools. This is because ICT when used for UBE programme will enhance its effective management. Moreover, this study found out that there are some challenges that hinders effective utilizing of ICT in managing of UBE in Anambra State secondary schools. Based on that the researcher suggested some recommendations.

Recommendation

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

1. That ICT should be utilized in managing UBE by the school principals as it enhances school capacity building.
2. That government should provide adequate ICT peronnelle and ICT infrastructures in schools for effective management of UBE in secondary schools.
3. That government should have effective government policy on the use of ICT in the education system for the achievement of UBE goals.
4. That ministry of Education in Anambra State, through Universal Basic Education Commission should organize and encourage principal and teachers for periodic seminars and workshops on ICT.

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