

## EVALUATION OF THE PROBLEMS AND PROSPECTS OF UTILIZING ICTS IN SECONDARY SCHOOLS IN OWERRI EDUCATION ZONE

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### ABSTRACT

*This study evaluated the problems and prospects of utilizing ICTs in Owerri educational zone three research questions were formulated to guide the study. A purposeful sampling technique was used to sample 1894 respondents from the area of study. The researcher made use of structured questionnaire as instrument for data collection. The data were analyzed using percentages, mean, Standard deviations. From the results, it was discovered that power supply is lacking in most of the schools in Owerri education zone, there are not enough computers and accessories in the schools, and also that most available computers and accessories are not functioning well. It was recommended among others that Government should work with the private sectors and civil society to ensure affordable and sustainable access to ICT infrastructure. ICT Education should be included in the secondary school curriculum. Provision of necessary infrastructural support and massive training and development of skills manpower into the secondary school should be made for the purpose of globalization of human capacity.*

**Keywords:** *Information, Computer, Technology, Infrastructure, Education, Secondary, Curriculum*

### INTRODUCTION

The rapid development of information and communication technology (ICTs) have made tremendous changes in the 21<sup>st</sup> century, as well as affected the demands of modern societies. ICT opens a whole world of possibilities in terms of producing documents, sounds, images and combining all three, thereby encouraging creative and self expression in pupils.

According to Hegboge (2002), in Achuonye, (2007) ICT is the application of computer, telecommunication equipment to process, store, retrieve and send information of all kinds. Today it is clear that ICT represents the convergence of computer-networking and telecommunication.

ICT is used in the banks, offices industries, homes, hospital, the military and schools etc. In the classroom (especially in secondary schools) it is used for the following reasons: As an institutional tool to explore, investigate, reflect, for communication and problem solving.

According to Westra and Sloep, (2001) the help of internet has reformed the traditional teaching and learning processes which include the following:

- Multi-channel learning- which gives learners a variety of instructional option with reference to their learning styles, this involves video and computer based media.
- Virtual classroom/ e-classroom – it is way- based education. This incorporates video conferencing, telephone conference, more interactive and goal oriented. This plays a great role in globalization of education in the secondary schools.
- Virtual library- this is also called the e-library, digital library. It makes library services available from and / or to any part of the world, hence it is information across towns, countries, continents using digital technologies.

Renoud (1998) analyzed the impact of in-school computer usage in science performance of students with low-grade achievement and found a positive relationship between computer usage and achievement as a function of exposure to computer assisted science instructions. The federal, state and local government in collaboration with all stakeholders of education in Imo state should ensure that all schools are fully equipped with all facilities and resources required for the full integration of ICT. ICT has the capacity to automate processes and save time, thereby freeing school managers to focus in instructional leadership. In secondary schools, the teachers and students should be educated on time management of ICT to enable them know how to use internet materials to improve for their intellectual growth instead of using it for internet fraud

However, in most secondary schools, the educational system is not yet ready to enter a new curriculum style.

Teachers are not ready to use the technology into the existing teaching curriculum. They often do not possess the necessary skills to use the new technology.

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The technical support is often limited, and teachers often find themselves lacking the software that supports major curriculum goals. Wehglinsky (1998) noted that is not how often you use it, is how well you use it. Elluh (1989), revealed the tremendous cost associated with the introduction of ICT in teaching and learning, which were often higher than the more traditional and proven methods. However, over the last several years the cost of ITC has decreased dramatically.

According to Walton, ICT is and will continue to be a growing force in student's lives. Therefore emphasis should be put on the type and quality of ICT used in other to produce positive results. Dabalan and Oni (2007), asserted that simple non access and an unrealistic effort to provide ICT materials might be very costly and even counterproductive.

### **STATEMENT OF THE PROBLEM**

There are sufficient empirical evidence that utilization of ICT yields positive and negative results for learners (Students) and teachers. The teachers in Owerri Education Zone for example, lack the skill to fully utilize technology in curriculum implementation hence the traditional chalk and duster approach still dominates in the secondary schools. The researcher observed that a lot of schools in Owerri Education Zone lack adequate electricity supply so those schools located in the rural areas have no access to the internet and they are perpetually isolated and estranged from the world of information technology.

Dabalen and Oni (2001) asserted that political conditions in Nigeria for the past thirty years leave no room for continuity. Political power in Nigeria has been used to enhance mediocrity, corruption in high places; misplace priority, and consumer culture. The direct effect of these is a battered economy and an educational system that is decaying by the day. In 1998, in an attempt to keep pace with development in education, Nigeria enacted a policy on computer education. According to Okebukola (1997), the plan was to establish pilot schools and thereafter the innovation, first to all secondary school and then to the primary schools. Unfortunately, beyond the distribution and installation of computer in the federal government colleges, the project did not really take off the ground. Could the problem in the utilization of ICT in secondary schools in Owerri Education Zone be because of the use of ICT negatively? Also could it be because students tend to use the internet to indulge in pornography which can be averse to their well being? Could it be the school environment? Onah (1992) maintained that the school should be free of any thing that could distract attention when teaching and learning is going on. Also could the problem of ICT utilization be due to lack of electricity power supply, lack of available and experienced manpower, lack of computer and its accessories? Could the population of the students and awareness also affect the utilization ICT in secondary schools in Owerri municipal? Could these problems slow down the rate of globalization of human capacity building through Information and Communication Technology (ICT)? Answers to these questions are necessary in order to evaluate the problems and prospect of utilizing ICTs in secondary schools.

### **PURPOSE OF THE STUDY**

The major purpose of the study is to identify the problems that are facing ICT utilization amongst secondary schools in Owerri Education Zone .it determined:

1. Availability of power/electricity as it relates to ICT utilization in secondary schools in Owerri Education zone
2. Availability of computer and accessories and its influence in secondary schools in Owerri Education Zone.
3. Manpower availability and its influence in secondary schools in Owerri Education Zone.

### **Researcher Questions**

1. To what extent does power supply electricity influence the utilization of ICT in secondary schools in Owerri Education Zone?
2. How does the availability of computer and computer accessories influence ICT utilization in secondary schools in Owerri Education Zones?
3. To what extent does enlighten and awareness influence ICT utilization in secondary schools in Owerri Education Zone?

### **METHODOLOGY**

The design of the study was a descriptive survey design meant to evaluate the problems and prospects of utilizing ICTs in secondary schools in Owerri education zone of Imo State. The study was conducted in Owerri education zone in Imo-State and this zone is made up of 9 local government areas. The

population of the study comprised of students and teachers. The students' population is 1647 while the teachers' population is 147 which total 1894.

Two sampling techniques used were stratified and simple random sampling techniques. First the population was stratified into (two) sub zones. Out of the nine local government areas that make up the sub zone; 25 schools were selected from each making a total of 50 schools, from the two sub zones. The respondents were selected in the 50 secondary school in the Zone through proportionate random sampling technique.

Structured questionnaire was developed by the researchers relating to the topic under study. The questionnaire Contains 13 items meant to answer the three research questions formulated for the study using the four likert points scale format, Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The three research questions were answered using mean and standard deviation. An acceptance criterion mean of 2.50 was used for the research questions.

## RESULTS

### Research Question 1

Table 1 : Mean score of the responses on the extent to which power supply/electricity influence the utilization of ICT in secondary schools in Owerri Education Zone using Question 1-5.

Item	Strongly Agree		agree		Disagree		Strongly disagree		X	SD	Remark
	F	%	F	%	F	%	F	%			
In your school there is adequate alternate power supply available to power ICT device in case of power failure.	30	4.4	49	8.8	280	50,1	200	35.8	1.84	0.79	Not Significant
Your school does not know about solar power	20	3.6	19	3.4	300	53.7	220	39.4	1,71	0.7	Not Significant
You hardly have one hour of uninterrupted power supply in your school	284	50.8	200	35.8	30	5.4	45	8.1	3.29	0.89	Significant
The electricity supply in your school is not regular	250	44.7	200	35.8	59	10.6	50	8.9	3.16	0.94	Significant
Your school does not have any standby generator	250	44.7	200	35.8	80	14.3	70	12.5	2.98	10	Significant

From the table above, 12.2% of the respondents agree that in their school there is adequate alternative power failure while, 85.8% of the respondents disagreed. The mean rating is 1.84 while the standard deviation is 0.79, indicating that there is no adequate alternative power supply available to power ICT device in case of power failure. It is not significant. Also 7% of the respondents agree that their school does not know about solar power while 93% of the respondents disagreed. The mean rating is 1.17 and standard deviation is 0.7 indicating that their school does not know about solar power. The item is below grand mean. Also the item is negative from the table above 86.6 of the respondents agreed that hardly have one hour of uninterrupted power supply in their school is not regular while 19.5% of the respondents disagreed. The mean rate is 3.29 and the standard deviation is 0.89, this indicate that there item is significant, on the agreement that they hardly have one hour uninterrupted power supply in their school.

Also from the table, 80.5% of the respondents agreed that the electricity supply in their school is not regular while 19.5% of the respondents agreed. The mean rating the item significant and also that the item is positive indicating that the electricity supply in their school is not regular.

Furthermore that the table, 73.2% of the respondents agreed that their school does not have any standby generator while 26.8% of the respondent disagreed. The mean rating is 2.98 and the standard.

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**Research Questions 2**

Table 2 mean score of the responses on how the availability of computer and computer accessories influence ICT utilization using question 6-8

Item	Strongly Agree		agree		Disagree		Strongly disagree		X	SD	Remark
	F	%	F	%	F	%	F	%			
Your school is adequately equipped with computer and computer accessories	15	2.7	25	4.5	250	44.7	269	48.1	1.60	0.7	Not Significant
There are not enough information communication technology tools in your school	265	47.4	270	48.3	10	1.8	14	2.5	3.41	0.66	Significant
The available ICT tools in your school are functioning well.	182	32.6	150	26.8	127	22.7	100	17.9	2.74	1.09	Significant

From the above 7.2% of the respondents agreed that their school is adequately equipped with computers and computer accessories, while 92.8% of the respondents disagreed. The mean rating is 1.62 and the standard deviation is 0.7 indicating that the is not significant. From the table above 95.7% of the respondents agreed that there are not enough information, communication technology tools in their schools while 4.3 % and the standard deviation is 0.66% indicating that the item is positive. Also, 59.4% of the respondents agreed that the availability of ICT tools in their schools are functioning well while 40.6% of the respondents disagreed. The mean rating is 2.74% and the standard deviation is 1.09 indicating that the positive indicating that there is availability of ICT tools in their schools is functioning well, indicating that the available tools are functioning well. Furthermore, 87.5% of the respondents agreed that the availability ICT tool in respondents' deviation is 0.82 indicating that the item is also significant.

Thus from the above table, it shows that there is inadequate availability of computer and its accessories and available of computer and it accessories and available one have positive impact on ICT utilization in school in owerri municipal. Computer and its accessories and available one have positive impact on ICT utilization in school in Owerri Municipal.

**Research Question 3**

Table 3 mean score of the responses on the extent to which enlightenment and awareness influence ICT utilization in secondary schools in Owerri Education Zone using question 9-13

Item	Strongly Agree		agree		Disagree		Strongly disagree		X	SD	Remark
	F	%	F	%	F	%	F	%			
You are computer literate	100	17.9	224	40.1	150	26.8	85	15.2	2.61	0.95	Significant
You have basic knowledge of ICT operation	102	18.3	222	39.7	154	27.6	81	14.2	2.62	0.94	Significant
All your teachers are computer literate	50	8.9	75	13.4	164	329	250	44.7	1.87	0.96	Not significant
Teachers in your school are not only familiar with the ICT tools but are also good in using them in teaching and learning	45	8.1	65	11.6	200	35.8	249	44.5	1.83	0.93	Not significant
You have interest in the utilization of ICT in other areas of your life apart from your school work	289	51.7	225	40.3	35	6.3	10	1.8	3.42	0.69	Significant

In table 1, 58% of the respondents agreed that teachers are computer literate, while 42% of the respondents disagree. The mean ratings for the responses are 2.61. It is significant, indicating that over 50% of the teacher populations in Owerri Education Zone are computer literate, while less than 50% are not computer literate. Also 58% of the respondents agree that they have basic knowledge of ICT operation, while 41% disagreed. The mean rating is 2.60, indicating that the item is significant. From the findings, over 50% of the students have basic knowledge of ICT.

Furthermore, 22.3% of the respondents agree that their teachers are computer literate, while 77.6% of the respondent disagreed. This indicates that the objectives of the programme have not been achieved, with the mean rating of 1.87 and standard deviation 0.96, the item is not significant, it is below grand mean. From the table above, 19.7% of the respondents agree that teachers in their school are not any familiar with the ICT tools but are also good in using them in teaching and learning, while 80.30% disagreed. The mean rating is 1.83 with a standard deviation of 0.93 indicating that students have not exhibited mastery of the instruction, in other words, the objectives of the programme (i.e. teaching of ICT) have not been achieve, it required revisiting the programme. The item is not significant.

### **FINDINGS**

The study found out that;

1. Power and electricity supply is lacking in most of the schools in the Owerri Education Zone.
2. There are not enough computers and accessories in the schools, and also that most available computers and accessories are not functioning well.
3. Enlightenment and awareness influence ICT utilization in secondary schools in Owerri Education Zone

### **DISCUSSION OF FINDINGS**

**Research question three** The result of the analysis of data shown in table 3 that power supply is lacking in most of the schools in the Owerri Education Zone. The concepts of e-education revolve around the use of ICT to accelerate the achievement of national education goals. Okokwo, (2007) stated that professional counselors cannot afford to remain dormant and complacent, counselors should let the government know that there are many problems affecting the use of ICT in the secondary schools like manpower and electricity supply and that something should be done fast about them, all teachers should be provided with suitable ICT material according to Okonkwo (2007) to facilitate learning. Rehan De Silva (1995) also noted that the internet remains network of network, thus giving academic workers a new life in education system.

**Research question two:** The result of the analysis of data shown in table 2 showed that there are not enough computers and accessories in the schools, and also that most available computers and accessories are not functioning well. According to Carlsona and Firpo (2001) "teachers need effective tools, techniques and assistance that can help them develop computer based projects and activities especially designed to raise the level of teaching in required subjects and improve students' learning (p. 109) Woodrow (1992) asserts that any successful transformation in educational practice requires the development of positive attitude towards the new technology. Okebukola (1997) concluded that computer and its accessories is not part of classroom technology in over 90% of public schools in Nigeria. The finding indicated that availability of computer and accessories is lacking in secondary schools in Owerri Education Zone.

**Research question three:** The result of the analysis of data shown in table 3 showed that teachers are computer literate, hence this findings support the research result conducted, resulting that more than half of the teachers in the Owerri Education Zone are computer literate. Also 58% of the respondents agreed that they have basic knowledge of ICT operation, with the view of awareness and enlightenment being positive. Furthermore, 77.6% disagreed that their teachers are computer literate, indicating that the objective of enlightenment and awareness have not been achieved. Also 92% of the respondents agreed that they have interest in the usage of ICT in other areas of their lives apart from school work. Based on these findings, there is a positive achievement from the students.

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Shavinina, (2001, P. 70) asserts that the main purpose of ICT consist just in the development of human mental resources, which allow people to both successfully apply the existing knowledge and produce new knowledge. The finding is supported by Headcote (2008) when he said that within half of century, computer and information technology have changed the world and affected million of lives in ways that no one could have foreseen.

### **CONCLUSSION**

The products of modern technology can either be a blessing or a curse, the choice depends on us. Few people though, would prefer to go back to the comparatively crude products of yesteryear. Computers, for example, spare us tedious task, enable us to buy and bank conveniently online, and help us keep in touch with others by e-mail, voicemail, or video link according to Awake (2009). E-education is electronic mode of knowledge sharing and transmission, which may not involve physical contact between teacher and student (Mac-Ikemenjima, 2003). ICT skills are suitable tools for imparting knowledge to students. They are very fast, reliable and help students to understand their studies easily. Teachers should begin to see the importance of these technologies and proper orientation is made. These will help everybody to be involved in making use of these valuable tools to standardize education in secondary schools in Owerri Education Zone. Data collected so far and tested showed that there is a significant influence to enlightenment and awareness, availability and quality of manpower, supply/electricity, availability of computers and accessories and population growth on the utilization of ICT.

### **RECOMMENDATION**

The following recommendations were made based on the findings of this study, for globalization of human capacity,

1. ICT Education should be included in the secondary school curriculum.
2. Provision of necessary infrastructural support and massive training and development of skills manpower into the secondary school should be made.
3. Adequate funding should be provided for the secondary educational sector with particular emphasis on ICT.
4. Government should work with the private sectors and civil society to ensure affordable and sustainable access to ICT infrastructure.
5. The students should be trained and supported with the necessary equipment to developable e-education software.

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