PERCEPTIONS OF TEACHERS AND CHALLENGES IN THE IMPLEMENTATION OF ICTs IN ANAMBRA STATE

By

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ABSTRACT

The study examined the perceptions of teachers and challenges in the implementation of ICT in Anambra State of Nigeria. Staffs of the selected schools numbering 15 were used for the study. Two research questions guided the study. The instrument used for data collection was questionnaire. The data were collected, presented, analyzed and interpreted using mean. The findings showed that although teachers often resist change, the extent to which their perception negatively influences ICT implementation is minimal. The result also showed that the major challenges to ICT implementation were those faced by teachers in the course of using computer in teaching and learning, such as lack of competence, confidence, access to resources and inadequate training. Other factors include lack of technical support, power supply, finance and security. The study recommended that teachers should be trained and provided with new devices and technology. The study concluded that an enabling environment, finance and technical support should be provided for the smooth implementation of ICT.

Keyword: Perceptions, Teachers, Challenges, ICTs, Implementation

INTRODUCTION

Information and communication technology is an important part of most organization and businesses (Zhang & Aikman, 2007). Computers were observed in schools in the early 1980s, and several researchers suggest that ICT will consist an important par of education for the next generation (Bransford, Brown & Cocking, 2000). Modern technology offers means of improving teaching and learning in the classroom (Eyibe &

Madusolunmuo 2004, Lefebvre, Deadelin & Loiselle, 2006) New technologies have the potential to support education across the curriculum and provide opportunities for effective communication between teachers and students in ways that have not been possible before (Dawees, 2001) ICT in education has potential to be influence in order to bring about changes in teaching. However, this potential may not be easily realized, because problems arise when teachers are expected to implement changes in what may well be adverse circumstances.

Due to ICT's importance in society and possibly in the future of education, identifying the possible obstacles in the integration of these technologies in secondary schools would be an important step in improving the quality of teaching and learning.

The use of information and communication technology (ICT) in the classroom is very important for providing opportunities for students to learn to operate in an information age. Studying the challenges to the use of ICT in education may assist educators to overcome these challenges and become successful technology adopters in the future.

STATEMENT OF THE PROBLEM

Since its inception in Anambra State, ICTs are supposed to be recording some observable success. However, the researchers observed that it was met with some critical challenges. It is based on this observation that this research was carried out to determine the perceptions of teachers and challenges in the implementation of ICTs in three education zones of Anambra State. Specifically, the study sought to undertake the perception of teachers on the implementation of ICTs in Awka, Onitsha and Aguata education zones, the challenges in the use of ICT in teaching and learning, and strategies which could be used to enhance the use of ICTs in secondary schools in Anambra State.

It is the investigation of these problematic constructs that this study is intended to examine.

PURPOSE OF THE STUDY

Specifically the study intends to find out:

1. The perceptions of teachers on the implementation of ICTs in Anambra State
2. The challenges to the use of ICT in teaching and learning in secondary schools in Anambra State.
3. To provide strategies which could be used to enhance the use of ICTs in secondary schools

SIGNIFICANCE OF THE STUDY

Several studies argue that the use of new technologies in the classroom is essential for providing opportunities for students to learn to operate in an information age. It is evident, as Yelland (2009) argued that the traditional educational environments do not seem to be suitable for workplaces of today's society. While new technologies can help teachers enhance their pedagogical practice, they can also assist students in their learning. According to (Grabe & Grabe 2007, Eyibe & Achusim, 2004) technologies can play a role in students' skills, motivation, and knowledge. They claim that ITC can be used to present information to students and help them complete learning tasks.

SCOPE OF THE STUDY

This work investigates the challenges associated with the implementation of ICT in Awka, Onitsha, and Aguata Education Zones of Anambra State. The work is limited to those secondary schools selected as Microsoft Academy Centres in Anambra State Education Zone.

RESEARCH QUESTIONS

The following questions were formulated to guide the study:

1. What are perceptions of teachers on the implementation of ICTs in secondary schools in Anambra State?
2. What are the challenges faced by the teachers in the utilization of ICTs in teaching and learning in secondary schools in Anambra State?

METHODOLOGY

The study is a survey design meant to determine the perceptions of teachers and challenges in the implementation of ICTs in Anambra State. A survey research design was used because a group of people were studied by collecting and analyzing data from a few people who were representative of the entire population of the state. The study was carried out in secondary schools in Anambra State

The population of this study comprised all the teaching staff of the five public secondary schools designated as Microsoft academy centres and two private schools each education zone of Aguata, Awka, Onitsha totaling one hundred and fifty one (151). Purposive sampling was used, because the schools selected were only those that met the required purpose, that is, those schools designated as Microsoft Academy Centres

A set of questions titled perceptions and challenges of ICT implementation in secondary schools was the instrument used for data collection. The questionnaire was made up of items which were formulated based on the two research questions. These items were designed to elicit information from the respondents. The questionnaire consisted of two parts. Part A is the respondents personal data and part B consisted of three sections designed to elicit information from the respondents in the areas of the research questions. A five point Likert type rating scale consisting of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) was used.

In order to ensure the validity of the instrument, copies of the questionnaire were given to the supervisor in curriculum and two other experts in the Educational Research/Measurement and Evaluation at Federal College of Education (Technical) Umunze for face and content validity. Their corrections and suggestions were effected which formed the final copy of the instrument used for data collection.

Copies of the questionnaire were administered personally to the staff of the selected schools numbering one hundred and fifty-one (150). They completed the questionnaire on the spot and returned them. The presence of the researchers was important because some explanations were made to remove some element of bias.

METHOD OF DATA ANALYSIS

The data collected were analyzed using mean. The two research questions were answered using means. The cutoff point determine whether an item is accepted or rejected and was decided by finding the class boundaries of the responses as shown below

Using the interval of 0.5, the upper limit of cut off point is 3.5. Hence, any response which receives a mean score of 3.5 and above was accepted while any mean response lower than 3.5 was rejected.

PRESENTATION OF RESULTS

The data collected were presented in tables and analyzed using mean. The presentation and analysis were according to the research questions.

RESEARCH QUESTION 1

What are the perceptions of teachers on the implementation of ICTs in secondary schools in the Anambra State?

Table 1: Mean responses of teachers on their perceptions on the implementation of ICTs in secondary schools in Anambra State.

S/N	Perceptions	SA	A	D	SD	N	X	Decision
1	Use of ICT in schools will lead to students' corruption	0	1	30	100	151	1.28	Rejected
2	The use of information Technology system in secondary schools will help in effective teaching and learning	90	25	16	0	151	4.25	Accepted
3	The use of new technologies in the classroom is essential for providing opportunities for students to operate in an information age	111	33	0	0	151	4.68	Accepted
4	Inadequate use of computer hinders performance of teachers	1	1	31	09	151	1.50	
5	Most stakeholders resist change and have negative attitude towards ICT implementation	98	21	6	14	151	4.21	Accepted
6	Use of ICT in secondary schools can help the teachers to enhance their pedagogical practice	77	62	4	2	151	4.37	Accepted

Table 1 showed that items 2, 3, 5 and 6 with the mean scores of 4.25, 4.21, and 4.37 respectively, were all above cut off point and were accepted as perceptions of the teachers that influence positively, the implementation of ICT in secondary schools. Item I and 4 with the mean score of 1.28 and 1.50 respectively were rejected.

RESEARCH QUESTION 2

What are the challenges faced by teachers in the course of using computers in teaching and learning?

Table 2: Mean response of teachers on the challenges faced by them in the utilization of ICTs in teaching and learning in secondary schools in Anambra State.

S/N	**Challenges**	SA	A	D	SD	N	X	Decision
7	Lack of teachers' competence is a challenge to implementation of ICT in your school	90	33	11	D	151	4.27	Accepted
8	Lack of effective training and capacity building hinders ICT implementation in school	20	45	10	6	151	3.71	Accepted
9	Use of computers distracts Teachers and students	2	5	26	98	151	1.45	Rejected
10	Inadequate access to ICT facilities hinders the implementation of ICT in schools	99	26	6	0	151	4.44	Accepted
11	Teachers require more time to implement ICT in secondary schools	112	37	1	0	151	4.78	Accepted

Table 2 above indicates that items 7, 8, 10 and 11, which have the mean score of 4.27, 3.71, 4.44 and 4.78 respectively, were all above cut off point of 3.50 and were accepted as challenges of ICT implementation in secondary schools. Item 9 with a mean score of 1.45 which is far below the cutoff point was therefore rejected.

DISCUSSIONS

Some barriers such as lack of teacher competence and lack of accessibility seem to be closely related to others. Some barriers such as lack of teacher confidence and resistance to change seem to be' more significant than others. The following discussion focuses on the relationships between lack of accessibility and lack of competence and other factors such as time, training, and technical support. The lack of accessibility to resources as a challenge to 1CT implementation is closely related to several other key issues which can be considered barriers to the use of ICT. Although the resources are available in schools, lack of time does not allow teachers to access these resources. There may be technical equipment available but there is no time for the teacher to operate and review those techniques, this may be because the number of lessons in one could be too many or because the time available during the class lesson is insufficient.

Another example related to the accessibility barrier, as found by previous studies (Alalwani, 2005, Albirini, 2006, Eyibe, 2013) is that lack of teacher training reduces the integration of technology into education. Educational technological materials may be available in schools but teachers cannot use them because of lack of pedagogical or skills-related (practical) training on how to use the IC.'T resources. On the other hand, it may be that the lack of access to resources leads to a reduction in training opportunities. It is important to remember that not only is access to resources used in the classroom for students' learning important, but also access at home will help with self-training. Access to resources might be available, but teachers cannot use ICT in the classroom because it may be difficult for them to operate ICT tools. Thus teachers always need technical assistance because this assistance may provide them with up-to-date equipment in the new world of technology. Technical support helps in training and training takes time. Together they allow access to ICT resources and thus help the successful integration of

technology in the teaching process. Lack of competence is one of the most important obstacles to teachers' use of technology in education. It is linked to other issues such as training, time and technical support. The first problem linked to the competence challenge is the lack of effective training. Teacher training in the use of modern technology in the classroom helps to increase the teachers' efficiency in using ICT in education effectively. Training includes training in basic skills in using technology as well as training in the integration of those technologies into interactive and effective teaching. Self-training is also important to increase competence and improve ICT use. It can happen through providing teachers with opportunities to use resources such as user guides, CDs, and IT equipment for self-training at home.

The improvements or strategies of ICT skills also require that teachers have time available. Teachers whose schools give them time to develop their skills can be more creative than teachers who do not have sufficient time. In order to achieve sufficient competence in using ICT effectively in education, a teacher also needs professional technical support. As discussed above, the relationship between accesses to modern technological resource ant the competence of teachers to use them is complicated. This relationship links those factors with other issues such as time, training, and technical support. Also, there is a relationship between the barriers of lack of accessibility and lack of competence. In other words, teachers may not be able to access ICT resources unless they have skills in the use of technology and can work with it efficiently in their teaching. On the other hand, access to ICT resources can help teachers increase their competence whether by sell-training through the internet or by communication with experts.

The opportunities for development of teachers' skills and their access to ICT resources can be increased by providing them with technical support and sufficient time. Another issue that has to be raised, according to previous studies (Dawes,

2001, Romed, 2006, Eyibe & Achusins 2014) is the teachers' confidence in using ICT to help them teach effectively. The lack of confidence is a problem linked to the previous two issues: the lack of access to resources and the lack of teacher competence, regarding the availability of ICT resources, perceived ability) to use ICT and having the basic skills to operate it may increase teachers" satisfaction with modern technologies, which may motivate teachers to integrate ICT in education. However, we should not overlook the provision of training, enough time, and technical support.

RECOMMENDATIONS

In the light of the findings of this study, the following recommendations have been offered.

1. In service training for teachers need to be provided by school authorities and the government to update the teachers with packages and tools in the ICTs.
2. Technical support needs to be provided in schools
3. Schools must provide teachers with the necessary 1CT resources including hardware and software.
4. It is important for schools to cooperate with teachers by providing sufficient time to implement new technologies in the classroom. For example, a school can reduce the teacher's number of lessons or increase the daily lesson length.
5. Teacher need to help with the implementation process. They should take advantage of ICT resources offered in schools. They need to be prepared enough before joining the teaching profession
6. Where training is absent, teachers can prepare themselves by enrolling in private sessions or by self-training

7. Teachers should be open-minded towards new approaches to teaching. Where support is lacking, they need to find ways to be able to solve problems involving their use of ICT in schools
8. Finally, teachers should acquire skills of self-organization which will help them a great' deal in conducting their classes when using ICT.

CONCLUSION

The aim of this paper was to provide information that will encourage improvement on the integration of ICT into secondary schools in Anambra State. The findings of this study indicated that teachers have a strong desire for the integration of ICT into education but that they encountered many challenges to it. The major challenges were lack of confidence, lack of competence, and lack of access to resources. Since confidence, competence and accessibility have been found to be critical components for technology integration in schools, ICT resources including software and hardware, effective professional development, sufficient time and technical support need to be provided for teachers. No one component in itself is sufficient to produce effective teaching. However, the presence of all components increases the likelihood of excellent integration of ICT in learning and teaching opportunities.

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