

EXTENT OF INFORMATION COMMUNICATION TECHNOLOGY(ICT) INTEGRATION AMONG STUDENTS IN TERTIARY INSTITUTIONS IN ANAMBRA STATE

ENEMUO, Chinwe J.
Department of Science Education
Nnamdi Azikiwe University,
Awka
E-mail: enemuojulian@gmail.com

And

EZEANYI, Benson C.
Department of Science Education
Nnamdi Azikiwe University
Awka.
freedom4ben10@gmail.com

And

EZEAKA, Nonye B. PhD
Department of Mass Communication
Chukwuemeka Odumegwu Ojukwu , University
Igbariam Campus, Anambra.
nonyeben@yahoo.com

Abstract

This study investigated the extent of information Communication Technology among students in tertiary institutions, survey design was used for the study. Three research questions were developed and one null hypotheses were formulated. The population comprises 6 tertiary institutions in Anambra state. Sample was made from the 7 tertiary institution and a total of 140 students was sampled. A structured questionnaire based on four likert scale which contained 15 items was used for data collection. Mean and standard deviation was used to answer research questions while t-test was used to test hypotheses at 0.5 level of significance. The result of the data analysis revealed among others that the provision of ICT gadget ,computer laboratories and involvement of students in real practical operation. suggestions for better usage of ICT in institutions of learning include among others that; ICT centre should be established in all schools and fund be made available to purchase computers and other ICT equipment in tertiary institutions, trained computer laboratory assistance should be employed, workshop and seminars should be organize in every institution in Anambra at least three times in a year.

Key Words: Communication technology, Tertiary Institution, Computer Laboratories, University students, Trainings, Workshops

Introduction

It is widely accepted that the future is going Information age where every nations prosperity will depend on its ability to process information. Therefore being disconnected from this age is as equivalent of non- existence. Information Communication Technology (ICT) is an umbrella term that includes any communication device or application. Encompassing, radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as video-conferencing and distance learning. An information society is one that makes the best possible use of ICTs. Martin (2009) supports this view by describing it as a society in which the quality of life, as well as prospects for social change and economic development, depend increasingly upon information and its exploitation. In such a society, living standards, patterns of work and leisure, the education system, and marketplace are all influenced by advances in information and knowledge. This is evidenced by an increasing array of information-intensive products and services (Martin, 2009). According to Sharma (2009), ICT are diverse set of technological tools and resources used to communicate and to create, disseminate, store and manage information. According to Onuselogu (2016) Information communication Technology enables the documentation of knowledge and support the creation and sharing of knowledge in the same was as it does with information. ICT are set of technological facilities systematically and scientifically harnessed for transmission of information from one point to another, ICT is communication made easy.

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research. Great deal of research has proven its benefit to the quality of education. Further more, ICT facilities have brought tremendous changes in the way the students learn, with the global networking, new avenues and resources of learning are available. ICT facilities are as follows; computer, audio and video machine, fax machine

Wikianswer (2015) ,defined computer as a tool use to acquire the basic computer knowledge, ideas, skills and other competencies so as to understand the basic terminologies, weaknesses of computers, potentialities of computers and how computers can be used to solve everyday problem. Computers as an ICT gadgets comes in various types, personal computer, laptop, and desktop. Fax machine: fax stands for facsimile ie. Make a copy . it is a device that can send or receive pictures and texts over a telephone line electronically. It works with telephone line through internet connection. The transmissions it sends are called “faxes” and these can be between two fax machines or between a fax machine and a computer online fax service that is equipped to send and receive faxes. ICT facilities are as follows; computer, audio and video machine, fax machine .

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based equipment, its often used in education with many schools and universities installing projection equipment and using interactive whiteboard technology.

Personal observation of the researcher shows that tertiary institution students demonstrate low in handling ICT equipment, most especially the above mention facilities this study. Some of the students may have not set eyes on fax machine and audio visual machine in their life, which may result to a dangerous challenge they face after their graduation. The researcher keeps wondering why this ICT facilities are left behind, forgotten, in our tertiary institutions today as part of ICT teaching . Therefore the extent of ICT integration in tertiary institutions will be assessed through the following ICT equipment's;

- Computer system
- Fax machine
- Audio and visual machine (projector)

Statement of the problem

ICTs have been utilized in education ever since their inception but they have not always been massively present and fully integrated in the learning of traditional subject matter. ICT gives value to learning process and its organization. Tertiary institution students demonstrate blow in handling ICT equipment which may be a reflection of low acquisition of ICT skills in secondary days. In traditional setting (class rooms) only the teacher makes use of the provided facilities for teaching, no room for students to practice and utilize the ICT facilities as it ought to be, moreso, there is no conducive laboratory for the teacher and students in carrying out ICT operation. thereby driving the students away from the use of ICT gadget.

Purpose of the study

The purpose of this study was to find out the Extent of ICT integration among students in tertiary institutions in Anambra State. Specifically the study sought to

-find out the extent of ICT integration among students in tertiary institutions in using computer system.

find out the extent of ICT integration among students in tertiary institutions in using printing machine

find out the extent of ICT integration among students in tertiary institutions in using photocopying machine

Significance of the study

It is expected that this study will help unveiling to lecturers, National Universities Commissions National polytechnics Commissions, colleges, students and researchers, the solution to the dwindling quality of integration of information communication technology. For lecturers, it will help to show them the loop holes and steps to take for a standardize teaching method. For students, they will be more accurate in taking decision. NUC, NPC and colleges of educations, it will help them to improve quality graduates. Researchers , will find the findings useful as a source materials.

Scope of the study

The geographical scope of the study covers seven (7) tertiary institutions in Anambra geopolitical zone. They include; twenty one (21) students from Federal Polytechnic Oko, eighteen (18) students from Federal College of education Umunze, twenty four(24) students from Nwafor Orizu college of

Education Nsugbe, twenty two (22) from Tansian University, fifteen (15) students from Madona University Okija, thirty two (32) students from Nnamdi Azikiwe University Awka, thirty (30) students from Chukwuemeka Odumegwu Ojukwu University Igbaram, content wise, the study investigated the extent of ICT integration among students in tertiary institutions in Anambra State, in the area of computer operation, printing operation and photocopying of documents. The final year computer students of the mentioned seven tertiary institutions was used.

Research question

In order to guide the study, the following questions were formulated

- 1.To what extent has integration of computer system helped tertiary institutions students.
- 2.To what extent has integration of fax machine helped tertiary institutions students.
- 3.To what extent has integration Visual machine helped tertiary institutions students.

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance guided the study.

There is no significant different in the mean ratings on the extent of ICT integration among students in tertiary institution in Anambra State.

Methodology

This study adopted survey research design because it includes the use of questionnaire to determine the extent of ICT integration among students in tertiary institutions. According to Ojo (2010) survey is the best technique for obtaining the necessary data from a group through the use of questionnaire. The study was conducted in seven (7) tertiary institutions in Anambra State which includes; Federal Polytechnic Oko, Federal College of Education Umunze, Nwafor Orizu college of Education Nsugbe, Tansian University, Madona University Okija, Nnamdi Azikiwe University Awka, Chukwuemeka Odumegwu Ojukwu University Igbaram,

Population of the study

The population of study comprised all final year students in computer department in the seven tertiary institutions under study.

Sample and sampling technique

The sample size for the study is 140 students, from the 7 tertiary institutions. The sample technique used for this study is simple random sampling technique.

Instrument for data collection

The instrument for data collection is a well structured questionnaire based on four (4) likert scale. The instrument was divided into four segment, one segment for students bio-data and the other three, each for one research question.

Method of data collection

Copies of the questionnaire were distributed by the researcher with the help of two research assistants. Filled out copies of the questionnaire was collected one week after distribution starting from the first institution to the last. The exercise lasted for a total of seven weeks, one week for each institution. A total of 140 copies questionnaire were correctly filled and sorted out for use.

Method of data Analysis

The data generated for the study were analyzed using descriptive survey design such as means scores and standard deviations. T-test was used in testing the research hypotheses. Three research questions were answered with one hypotheses were tested at 0.05 level of significance.

Decision rule, this was based on 4 point likert scale of Strongly Agree (SA) 4 point, Agree (A) 3 points, Disagree (D) 2 points, Strongly disagree (SD) 1 points. Mean was calculated thus;

$$4 + 3 + 2 + 1 = 10 / 4 = 2.5$$

Result

Table 1: mean rating on the extent of integration computer operation among tertiary institutions Students

S/N	Items	SA	A	D	SD	Mean	STD	Decision
1.	Ability to connect a new brand computer system	55 1.57	60 1.28	10 0.14	15 0.1	3.09	0.43	Agree
2.	Ability to open application	63 1.8	31 0.66	28 0.4	18 0.1	2.96	0.48	Agree
3	Ability to install a new application	57 1.6	47 1.0	26 0.36	12 0.08	3.04	0.88	Agree
4	Ability to type with computer	90 2.6	30 0.6	15 0.2	5 0.03	3.43	0.73	Agree
5.	Ability to save a typed document	80 2.28	40 0.85	0 0	20 0.28	3.41	0.98	Agree
Grand mean and Standard deviation						3.1	0.7	Agree

Data on table 1 showed that all the 5 items had their mean values ranging from 2.96 to 3.43 were above the cut off point of 2.50. This indicated that the students acquired the knowledge of computer operation to a very high extent.

Table 2: mean rating on the extent of integration fax machine among tertiary institutions Students

S/N	Items	SA	A	D	SD	Mean	SD	Decision
6	Ability to connect a new brand fax machine	50 1.42	67 1.43	15 0.21	8 0.05	3.11	0.99	Agree
7.	Ability to send mail through fax machine	22 0.62	28 0.60	42 0.6	48 0.34	2.16	1.0	Disagree
8.	Ability to dictate when a recipient receive a document sent .	25 0.71	23 0.49	38 0.54	54 0.38	2.12	0.58	Disagree
9.	Ability to print a document from fax machine	68 1.9	30 0.6	24 0.3	18 0.1	2.9	0.20	Disagree

10.	Ability to channel fax machine through the internet transmission cable.	31 0.88	28 0.6	18 0.25	63 0.45	2.18	1.0	Disagree
Grand mean and Standard deviation						2.4	0.75	Disagree

From table 2 above, the result shows that integration of fax machine operation among students was very low, that the institutions involved, need qualified and committed lecturers. The result also an indication that they are good in connecting the printer, but cannot perform other activities that follows the printing operation.

Table 3: mean rating on the extent of integration visual aid machine operation among tertiary institutions Students

S/N	Items	SA	A	D	SD	Mean	STD	Decision
11.	Ability to connect a new brand visual machine	18 0.51	22 0.47	52 0.7	48 0.34	2.04	0.43	Disagree
12.	Ability to operate visual aid machine with computer system	25 0.71	23 0.49	38 0.54	54 0.38	2.12	0.64	Disagree
13.	Ability to dictate when a visual machine is in good state.	22 0.62	28 0.60	42 0.6	48 0.34	2.16	1.0	Disagree
14.	Ability to set visual machine for proper viewing	88 2.5	30 0.64	0	22 0.15	3.3	0.9	Agree
15.	Ability to on and off visual machine.	26 0.7	18 0.3	33 0.47	63 0.45	1.92	0.41	Disagree
Grand mean and Standard deviation						2.3	0.8	Disagree

Data in table 3 shows that the above items 11,12,13 and 15 revealed that adequate integration of photocopying operation should be embedded on learners. It is also concluded that for ICT integration to thrive in any given society that friendly environment should be guarantee to the learner as showed by result.

DISCUSSION OF THE FINDINGS

The discussion of the result is done according to different research question and data collected on them. The first research question sought to find out the extent of integration of computer operation among tertiary institution students. From the students view, result indicated that operation of computer system have positive impact and also has helped them a lot in carrying out their assignment with their own personal computers. The findings of this study also agree with Harison (2012) who saw ICT to be effective and positive means of combing out ICT illiteracy among learners. Which was supported by Williams (2013) opined that it is geared towards developing in the students/youth, the skills and managerial abilities for self reliance or self employment.

The second research question sought to find out the extent of integration printing operation among tertiary institution students. The mean responses reveal that item number 7,8,9 and 10 are were

disagreed, while item 6, were agreed. The table shows that printing operation integration have not create any impact among tertiary institution students,the study agree with Idoko (2012) who noted that tertiary education should be provided with the opportunity to learn effectively by doing it not by being told about it. The findings of the study were also supported by Odigbo (2004) that teachers plays a significant role in changing the mindsets of the learner through their day to day interaction with the learner.

The third research question sought to find out the extent of integration of photocopying operation among tertiary institution students. From the table it was also revealed that the students were able to produce multiple copies during photopying of document, they have no knowledge with item 11, 12, 13 and 15. That mean there exist difficulty in the operation of photocopying of document.

The findings were agree with Gbenga (2009) that When we have reliable ICT equipment in school it will promote learning, problem solving from the Internet in the development of the state. Which was supported by Smeldly (2010) Information Communication Technology at all levels will help to eradicate computer illiteracy so that an average Nigerian can be able to access any ICT facility with ease.

Similarly, rural areas need to be electrified for the same purpose. In the same way, both rural and urban areas are to be linked up with ICT in order to facilitate learning. When we have reliable ICT equipment in school it will promote learning, problem solving from the Internet in the development of the state. Information Communication Technology at all levels will help to eradicate computer illiteracy so that an average Nigerian can be able to access any ICT facility with ease. The following are the suggested usage of ICT in integrating science in schools.

Conclusion

Integration of ICT in schools is over whelming. Its impact penetrates into all human endeavors. Cutting schools off from ICT's benefits will be the greatest error of the millennium. Every branch of the government should contribute to ensure that ICT benefits are realized fully in their school system.In the light of the above analysis, in the institution and especially societal setup, the lack of information technology infrastructure will be by building wireless infrastructure. The use of Information Communication Technology (ICT) in our school system itself within the institution and society in Nigeria is based on communication link among towns and within towns the infrastructure for cellular phones is being developed. This paper have argued that integration of Information communication technology among students of tertiary institutions will not be ruled out.. Interestingly, demand for information Communication technology services continued to rise in school system .

Today, the line of demarcation between computing and communication is fading into obscurity; the emerging technologies are almost enveloping the higher to traditional and establishing technologies.

Recommendations

- ICT centre should be established in all schools and fund be made available to purchase computers and other ICT equipment in schools.
- More trained lecturers should be employed and those who are not computer literate should be mandated to go for computer and other ICT training
- Government should make it mandatory for science and computer lecturers to always attend seminar, workshop, conference and refresher course in computer
- There should be a serious punishment for any individual or group who mismanaged or misappropriate money meant for education
- Government should provide all tertiary institutions tutors with laptop
- Government should work hard to solve problem of power failure in the country.

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