

AVAILABILITY AND ACCESSIBILITY OF INTERNET IN FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI BY UNDERGRADUATE STUDENTS

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Abstract

This study investigated the perception of the availability and accessibility of internet in Federal University of Technology, Owerri by undergraduate students. The study was guided by two specific objectives. In order to achieve the objectives, two research questions were posed. Descriptive survey research design was adopted for the study, while a sample size of 180 undergraduate students of Federal University of Technology, Owerri was randomly selected from a population of 1069 final year students. The instrument for the study was a well validated questionnaire titled: Undergraduate Students Perception of the Availability and Accessibility of Internet Questionnaire (USPAAIQ) with a reliability coefficient of temporal stability of 0.97 mean, standard deviation, t-test analysis were used for data analysis. Findings identified that; internet was available as well as accessible to the undergraduate students of Federal University of Technology, Owerri. Based on the findings and implication of the findings, the researcher recommended among others: the university should enjoy constant power supply, so that Internet services in the school's digital library can be stable; orientation programs on the use of internet should be organized at intervals for the students; so as to ensure maximal and proficient utilization of the internet for academic purposes.

Keywords: Availability, Accessibility, Internet, Undergraduates Students.

Introduction

ICT stands for information and communication technology. It refers to technologies that provide access to information through telecommunication. It is similar to Information Technology (IT) but focuses primarily on communication technologies. This includes the internet, wireless networks, cell phones and other communication medium. It means we have more opportunities to use ICT in education to improve quality of teaching and learning (Ratheeswari, 2018). The researcher also observed that ICT are making dynamic changes in society. They are influencing all aspects of life. The influences are felt more and more at schools.

However, ICT provide both students and teachers with more opportunities in adapting learning and teaching to individual needs, forcing schools to aptly respond to this technical innovation. Arugu and Chigozie, (2016) submitted that ICT is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer network hardware software, satellite systems and so on, as well as the various services and applications associated with them, such as video conferencing and distance learning. ICTs are often spoken of in a particular context, such as ICT in education, health care, or libraries.

The uses of internet are enormous ranging from academic research, receipt of global information, linkage with other institutions of the world, bridging communication gap between developed and developing countries and also assist students to be computer literates. The internet is loaded with data and information which provides students with opportunity to engage in more challenging and life time activities. The internet is a uniform, global computer network connecting millions of computers across the world. It is a voluntary network in which many computers connected have chosen to do so in order to share and exchange information

in a quick and effective manner. For instance you can look for articles in other libraries from your computer and communicate with friends (Oso and Adesua, 2017).

Over the years, the internet has been a very important instrument for facilitating academic activities in tertiary institutions in Nigeria. The information and communication technology revolution is sweeping through the world and the gale has even caught up with developing countries like Nigeria. There has been a tremendous growth in the use of the Internet and the World Wide Web for finding and sharing information (Ivwhighrehweta and Igere, 2014) According to Emeka and Nyeche, (2016) the internet today is a worldwide entity whose nature cannot be easily or simply defined. To many, the internet is a large computer network linking together millions of smaller computers at numerous sites in various countries belonging to thousands of business, government, research, educational and other organizations. To the internet users, the internet is a global community-one with a very active life. In today's world, the Internet plays a vital role in the teaching, research and learning process in academic institutions. Thus, the advent of the Internet has heralded the emergence of a new form of knowledge production and distribution.

Fasae and Aladeniyi (2012) opine that for developing countries like Nigeria to grow and attain its economic and social status, such country must be fully ready in strengthening and empowering its academic institutions, both in science and technological capacity. Hence, the students in their respective fields will need an array of reliable and interactive means of accessing and retrieving information without wasting much time. Similarly, the use of this Internet is greatly dependent on some associated factors such as purposes, students experience, locations, Internet facilities and services available, among others on academic pursue of the students in their institutions. Deniz & Geyik, (2015) reveal that the time spent on the internet is not a waste of time as it is perceived to be productive. They opined that there are more rewards of internet use in comparison with its drawbacks.

The importance and usefulness of the internet cannot be overemphasized. The National Policy on Education (2014), recognizes the prominent role of Information Communication Technology [internet] in the modern world today hence the integration of ICT in Education in Nigeria. Students of Federal University of Technology Owerri are not left out; they feel more dependent on internet services for teaching and class assignment respectively and the gathering of information. Before the innovation of the internet they were faced with difficulties in carrying out effective research for their academic works. With the availability of internet services, they are now faced with the conventional method of updating their knowledge and putting more data in their research approach; thereby contributing to the creativity of knowledge based information oriented and system driven modern society.

Lecturers of Federal University of Technology Owerri always complain of the inability of the students to carry out meaningful research work given to them in form of continuous assessment, term papers, and projects, among others. Also, in the case of searching for research topics, the researcher observed that recent projects in the shelves of the school's library were mere duplications of old ones; in terms of content and references. Most of the literatures reviewed were scanty and outdated; some students attributed this to unavailability of materials and information needed to delve into novel and contemporary areas. Educational system is a knowledge organization that requires constant and consistent updating and renewal to forestall growing stale and obsolete. One wonders why anyone should complain of lack of information in this era of internet services that gave access to interesting documents for research, such as journals, magazines, computer manuals, news summaries and academic papers. Thus, the problem of this study posed as a question is: what is the level of availability and accessibility of internet for undergraduate students of Federal University of Technology, Owerri?

Specifically, the study determined: undergraduate students perception on internet

availability in Federal University of Technology, Owerri with respect to those who are aware and who are not aware and undergraduate students perception on internet accessibility in Federal University of Technology, Owerri with respect to those who have access and who do not have access.

Research Questions:

The following research questions were posed to guide the study:

1. What is the mean response score of undergraduate students' perception on internet availability in Federal University of Technology, Owerri with respect to those who are aware and who are not aware?
2. What is the mean response score of undergraduate students' perception on internet accessibility in Federal University of Technology, Owerri with respect to those who have access and who do not have access?

Hypotheses:

There is no significant difference in the mean response scores of undergraduate students perception on internet availability in Federal University of Technology, Owerri with respect to those who are aware and who are not aware.

There is no significant difference in the mean response scores of undergraduate students perception on internet accessibility in Federal University of Technology, Owerri with respect to those who have access and who do not have access.

Method

This research adopted the descriptive survey research design. The design is considered appropriate because of its suitability for studying phenomena and establishing between variables on Undergraduate Students perception of the Availability and Accessibility of internet in Federal University of Technology, Owerri. The study was carried out in Federal University of Technology Owerri (FUTO). The university is sited in Owerri, a metropolitan city located between latitudes 05° 29' 06s and longitude 07° 02' 06s in the southeastern part of Nigeria. The area experiences mean daily minimum temperature range of 19-24°C and maximum range of 28-35°C, average relative humidity of up to 80%, and a longer wet season which lasts from April-November. The vegetation, though dominated by semi-deciduous forest has been altered by agriculture and other anthropogenic activities, with dominant top-soil of moderate humus composition.

The Otamiri River, a major river in Owerri which serves domestic uses, fisheries and artisanal sand mining courses through the university campus, onto the suburbs and then to the neighboring Rivers State where it first confluences with the Oge-ochie, and then Imo Rivers before emptying into the Atlantic Ocean. The university is located in Owerri West, the capital of Imo State. The university is bounded by the communities of Eziobodo, Umuchima, Ihiagwa, and Obinze, all in Owerri West L.G.A., Imo State, Nigeria.

The population of the study was 1059 final year students of School of Engineering and Engineering Technology (SEET) for 2019/2020 academic session, since they are the ones currently undergoing active research on project writing. (Source: office of the Dean of Engineering and Engineering Technology). The sample of the study consists of 180 undergraduate students which represent 16.9% of the entire population. The sampling was randomly selected from the final year students of each of the schools using simple random sampling technique. This was done in order to have a fair selection. In the use of the simple random sampling technique by replacement, the use of slips of paper or lucky dip was employed. The name of each member of the population was written on a slip. The slips were

folded and put in a container. After a thorough reshuffling, the researcher not looking into the container, dipped his hand and picked one slip. He unfolded the slip, recorded the name on the slip, folded it back again and puts it back into the container. The researcher repeated this process until the required number of elements 180 were drawn. This process of replacing, after each draw, a slip that was drawn before a subsequent draw is referred to as “sampling by replacement”. It ensures that each member of the population has an equal probability of being drawn.

The researcher used a sample size of 180 undergraduate final year students from the Faculty of Engineering and Engineering Technology (FEET) Federal University of Technology Owerri. The instrument for data collection is a self-structured questionnaire developed by the researcher titled “Undergraduate Students Perception of the Availability and Accessibility of Internet Questionnaire (USPAAIQ)”. The questionnaire has two sections A and B. Section A contains the students’ demographic variable, while section B contains 10 structured item statements as clusters A and B (cluster A for availability of internet while cluster B for Accessibility of internet). A 4 point rating scale of Strongly agreed, Agreed, Disagreed and Strongly disagreed type of questionnaire will be used as follows:

Strongly Agreed (SA)	= 4 Points
Agreed (A)	= 3 Points
Disagreed (D)	= 2 Points
Strongly Disagreed (SD)	= 1 Point

For face and content validity, the researcher gave the questionnaire to 3 experts in the field of measurement and evaluation and ICT for their criticisms and validation of the instrument. Cronbachs alfa correlation coefficient of 0.91 was obtained for the reliability. Therefore, the instrument became suitable for the study. 180 questionnaires were administered and a total of 180 was retrieved. The students’ questionnaires responses were used for the data analysis. The researcher used a mean score and standard deviation of the responses was calculated and used to answer the research questions. t-test analysis was used to test the hypothesis at 0.05 level of significance.

Results

Ho₁ There is no significant difference in the mean response scores of undergraduate students perception on internet availability in Federal University of Technology, Owerri with respect to those who are aware and who are not aware.

Table1: t-test analysis showing difference in the mean response scores of undergraduate students perception on internet availability in federal university of technology, Owerri

Source of variation	N	X	SD	df	t-cal.	t-crit./tab.
Students who are aware of internet availability	120	8.67	0.87	1.78	5.53	1.96
Students who are not aware of internet availability	60	2.66	0.32	$\alpha = 0.05$		

The result in table 1 reveals difference in the mean and standard deviation of students who are aware and who are not aware of internet availability to be 8.67 ± 0.87 and 2.66 ± 0.32 respectively. The table also presents that t-cal of 5.53 is greater than t value of 1.96 at 0.05 alpha level of significance, hence the hypothesis is rejected. This shows that there is significant

difference between undergraduate students of Federal University of Technology, Owerri who are aware of internet availability and those who are not. This means that internet is available to undergraduate students of Federal University of Technology, Owerri.

Ho1 There is no significant difference in the mean response scores of undergraduate students' perception on internet accessibility in federal university of technology, Owerri with respect to those who have access and who do not have access.

Table2: t-test analysis showing difference in the mean response scores of undergraduate students perception on internet accessibility in federal university of technology, Owerri

Source of variation	N	X	SD	df	t-cal.	t-crit./tab.
Students who have access to internet availability	140	7.63	0.74	1.63	4.44	1.96
Students who do not have access internet availability	40	1.57	0.22	$\alpha = 0.05$		

The result in table 2 reveals difference in the mean and standard deviation of students who are aware and who are not aware of internet availability to be 7.63 ± 0.74 and 1.57 ± 0.22 respectively. The table also presents that t-cal of 4.44 is greater than t value of 1.96 at 0.05 alpha level of significance, hence the hypothesis is rejected. This shows that there is significant difference between undergraduate students of Federal University of Technology, Owerri who have access to the internet and those who do not. This means that internet is accessible to undergraduate students of Federal University of Technology, Owerri.

Findings

The result of the study revealed that there is significant difference between undergraduate students of Federal University of Technology, Owerri who are aware of internet availability and those who are not. It reveals that there is significant availability of internet for some undergraduate students of Federal University of Technology Owerri. This means that internet is available to some undergraduate students of Federal University of Technology Owerri. This finding also confirmed a previously existing findings, for example; Daniel and Rhoda, (2015) in their research work at University of Jos; the analysis of the data and findings indicated that there is Internet connectivity in the school's digital library. It therefore becomes a plus to Nigerian education system in the provision of the ICT for effective teaching and learning.

In the second objective and test, the study revealed that there is a significant difference between undergraduate students of Federal University of Technology, Owerri who have access to the internet and those who do not. This implies that the hypothesis which states that there is no significant difference between undergraduate students of Federal University of Technology, Owerri who have access to the internet and those who do not is rejected. This means that internet is significantly accessible to some undergraduate students of Federal University of Technology Owerri. This finding also confirmed a previously existing finding of Siddiquah et al, (2017) in their related work which revealed that the students have computers and Internet facilities at home and universities. Also Adegbiya et al, (2012) in their related research work confirmed that the respondents strongly agreed that Internet facilities were available to them at various locations except in their hostels. The results on the level of accessibility of Internet resources showed that 83.4% and 80.4% of the respondents very often and often respectively

used some Internet resources such as search engines and e-mails among others.

Conclusion

The dependence on the internet and its services is increasing day by day and the users of internet like undergraduate students of Federal University of Technology Owerri are mostly dependent on the internet for their various educational purposes. The internet facilities have enhanced students' academic excellence by providing them with latest information in the internet. Following the present study, from the result shown on table 1, it shows that the internet is available to the undergraduate students of Federal University of Technology Owerri. The result on table 2 likewise shows that the internet is accessible to the undergraduate students of Federal University of Technology Owerri. From the findings, availability and accessibility of internet is extremely important to undergraduate students of Federal University of Technology, Owerri. It increases their confidence while carrying out their academic activities, boosts their academic grades and aids them in carrying out their day-to-day academic works like: assignments, term papers, research projects, project proposals among others. It brings them to a higher level of enlightenment through research on current and trending global issues, gives them an edge over their colleagues, and sets them on a high technological pedestal. It makes their education less stressful, insightful and enjoyable. It also improves and widens their sense of discovery.

Recommendations:

- I. The following recommendations were made based on the findings of the study: The universities should enjoy a constant power supply, so that Internet services in the school's digital library can be stable.
- II. Universities should partner with non-governmental organizations (NGOs) through Public Private Partnership (PPP) to provide virtual libraries for them.
- III. Librarians should train users in accessing Internet and e-resources provided by the library.
- IV. Government and university management should increase funding coming to the university so that undergraduate students can enjoy full Internet services.

Educational Implications of the Study

The implication of the study as it concerns education is that, it addresses the availability and accessibility of internet among undergraduate students of Federal University of Technology Owerri. However, from the point of view of education, it will make it easier for the students to access relevant information, acquire necessary skills, improve in their knowledge base and share related ideas among others.

Another implication of this study is that it will help the students to be acquainted with new sources of research areas in education that will improve their academic performances in their different areas of study. This study will also help to point out how information technological tools such as computer, internet, and telephone, among others can help students grow in their academic pursuit and equally develop their skills through their access to the web.

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