



UTILIZATION OF INFORMATION COMMUNICATION TECHNOLOGY BY LIBRARY AND INFORMATION SCIENCE UNDERGRADUATE STUDENTS IN UNIVERSITY OF CALABAR, CALABAR NIGERIA

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ABSTRACT

The main purpose of this study was to investigate the utilization of Information Communication Technology by library and information science undergraduate students in University of Calabar, Nigeria. To achieve this purpose, three research questions were generated to direct the study. Literature review was done according to the variables under study. Survey research design was used for the study. A sample of two hundred and forty-six (246) undergraduate students were selected for the study using accidental sampling techniques. The instrument for data collection was titled: "Utilization of Information Communication Technology Questionnaire (UICTQ)". The reliability of the instrument was established through test retest method. Sample percentage was the statistical analysis techniques adopted to test the research questions under study. The results of the analysis revealed that consistencies in ICT, reasons for using ICT and availability of infrastructure significantly influence utilization of ICT by undergraduate students of LIS. Based on the findings of this study, it was recommended among others that government in conjunction with the school administrators should run a free and compulsory ICT services in order to provide practical and functional knowledge to students in tertiary institutions.

KEYWORDS: Utilization, ICT, Undergraduates, University, Availability, Competence,

INTRODUCTION

In this modern day developments, Information and Communication Technology (ICT) has resulted in great changes in people's live for work, learning and leisure. These developments have changed the demands being made on undergraduate students in terms of their expectations in service delivery.

In this regard Information and Communication Technology needs to play an important role to transform the communications environment and have the potential to deliver educational services more efficiently. Internet can extend the reach of information from anywhere in the world even to remote rural areas. The internet can be used to access information which can improve the quality of education in countries where learning

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materials are scarce. ICT dramatically plays a major role in the education sector, by improving the quality, effectiveness and efficiency of learning, research and educational management around the world (Olusesan & Emmanuel, 2016). ICT has a lot of positive impact on Nigerian universities as it has stimulated hope for improvement in higher institutions of learning. ICT tools square measure digital infrastructures like computers, laptops, desktops, data projector, software programs printers, scanners, interactive teaching box, mobile phones and gaming devices can be used to enhance learning (Nantwi & Adjei, 2018).

ICT is the term that is currently used worldwide to describe new technologies which depend mainly on computer, Internet, WIFI, smartphone, Tablet PC among others. Asabere and Enguah (2012) asserted that ICT is the resources and equipment that provide the required environment with the physical infrastructure and the services for the generation, transmission, processing, storing and dissemination of information in all forms including voice, text, data, and graphics. ICT is noted to be an electronic or computerized device, assisted by human and interactive materials that can be used to enhance teaching and learning as well as for personal use (Apagu & Wakili, 2015). Ogunlade (2015) asserted that Information and Communication Technologies are the tools and gadgets available for students use in learning in a more efficient and stimulating manner than the sole use of teacher's voice. Ifueko (2011) also sees ICT as the digital processing and utilization of information by the use of electronic computers. ICT utilization has originated a new age in the educational system, thus completely changed the traditional method of instructional delivery and usage patterns as well as offering modern-day learning skills for students (Ololube 2007). The application of ICT will greatly improve the quality of learning in any tertiary institution. Students need to cope with the demand of emerging ICT which have moved away from analog to digital technology (Nkokelonye, 2008). ICTs facilities can enhance the quality of instructions in several ways: by increasing learner motivation and engagement; by facilitating the attainment of basic skills; and by enhancing facilitators training (Meenakshi 2013).

Twaki (2013) stated that ICT tools are primarily used to aid teaching and learning which includes: Computer-based learning, The Subject is further

simplified via computer animations and simulations to enhance the students comprehension, presentation: Microsoft powerpoint, google presentation, research resources, handheld devices for student evaluation, educational games, such as e-learning which can help students to have a fresh mind before starting the day or after a long day; brain-teasing games and teaching/learning resources. The knowledge about what ICT entails offers undergraduates' the opportunity to put new passion and new approaches into learning. Information and Communication Technology has introduced new approaches towards learning, brought a new concept for online learning interaction among undergraduates'.

Siddiquah, and Salim (2017) noted that undergraduates are experts in the actual use of simple skills like MS Word, MS PowerPoint, Searching and Browsing at Internet, Social networking, Email, File attachment, and Computer games but have inadequate skilled or poor on other skills like using digital library, discussion forums, and Blogs. ICT has opened wide opportunities for educators to integrate technology auxiliary materials within the teaching-learning method and to enhance the accomplishment of scholars. Adeosun (2010) noted that the use of ICT in education improves the quality and the quantity of education and causes better innovative, creative and cognitive thinking, higher productivity, efficiency, and educational outcomes. Various ICT tools that undergraduates' explore should be assessed to determine how effective and efficient such tools toward the enhancement of their learning are.

Gasaymeh (2018) noted that undergraduates who had easy and free access to computers and the internet were more likely to employ ICT in their informal learning and formal learning. Edozie, Olibie, and Aghu (2010) noted that ICT empowerment enhances the abilities of learners to use ICT to improve their life-skills and strengthen their study and reading capabilities. Ajayi (2008) opined that effective utilization of ICT in learning depends on the availability of these facilities and undergraduates' competence in using such as the Internet, WIFI, e-journal, smartphone, laptop, academic websites, Computers and so on by the students to enhance their learning and academic performance. Therefore, there is a need to determine how well undergraduates' utilized ICT tools in their

learning and is an integrated part of the quest that helps to improve the quality of education among the undergraduates'.

STATEMENT OF THE PROBLEM

Good performance in University has always been a determining factor for the award of degree to the graduates in Nigeria. A good grade in University is very important in determining a young Nigerian's future. In the choice of employment, the importance of passing at undergraduate level cannot be overestimated. Failure or ordinary pass in the examinations is causing a lot of frustrations too many young Nigerians that need considerable attention by educationists. Failure at undergraduate level means thwarted hopes, a wasted effort, and no legitimate employment for most school leavers. To some, poor performance at undergraduate level means year of embarrassment and misery, and period of bleak future.

Phenomenal changes are seen in the way users' access information and how they manage information resources in the present era. The advent of electronic information resources requires new approaches of accessing information resources and formats. As enormous as the benefits and roles ICT are to every level of educational system, a lot of challenges abound. The most significant of these appears to be poor usage of ICT facilities among students, unavailability and inaccessibility of ICT facilities for students learning. Irrespective of the present jet age, some students still find it difficult to excel in examinations which may be due to poor skill in application and utilization of ICT facilities for learning. Therefore, it become very necessary to investigate if availability of ICT infrastructure, competencies and the use of electronic resources by undergraduates can improve undergraduate academic performance of LIS in University of Calabar.

Objectives of the Study

The main purpose of this study is to investigate the utilization of ICT by library and information science undergraduate students in University of Calabar. Specifically, the study seeks:

1. To find out the extent of undergraduates LIS students competencies in ICT in University of Calabar.

2. To ascertain the reasons for using the ICT resources by undergraduates LIS students in University of Calabar.

3. To examine the Information Communication Technology infrastructures available in University of Calabar.

Research Question

Based on the purpose of the study, the following research questions are formulated:

1. What is the extent of undergraduate LIS students competencies in ICT in University of Calabar?

2. What are the reasons for using the ICT resources by undergraduates LIS students in University of Calabar?

3. What are the available Information Communication Technology infrastructures for use by the undergraduates of LIS students in University of Calabar?

METHODOLOGY

The research design adopted for this study was the survey design. The research was conducted in University of Calabar of Department of LIS. The population of this study comprises of 615 (six hundred and fifteen) undergraduate students in 100level to 400level of Library and information science in University of Calabar in 2020/2021 academic session. The sampling techniques adopted for this study were Simple random and accidental sampling technique. The sample for this study was made up of two hundred and forty six (246) undergraduate students of Library and information science in University of Calabar, Cross River State in Nigeria, which is the 40% of the population. The questionnaire had two sections. Section 'A' and section 'B'. The instrument captioned "Utilization of Information Communication Technology Questionnaire" (UICTQ). Section A contained items that source for information on demographic data of the respondents. Section B comprised of items that measure the variables. The questionnaire was constructed after the Likert four point scales. Section A included; gender, age and levels.

Section B included items on a Likert scale with four point alternative responses ranging from strongly agree (SA), Agree (A), strongly disagree (SD) and Disagree (D). Section B was made up of 15 items measuring competencies in ICT, Reasons for using ICT and ICT infrastructures available.

Results

Research Question 1: What is the extent of undergraduate LIS students competencies in ICT in University of Calabar?

To answer this research question, responses to items 1-5 of section B on the questionnaire were analyzed. The result of the analysis is presented in Table 1.

Table 1: Response of the respondents' on students' competencies in ICT by LIS undergraduate students of University of Calabar

S/N	ITEMS	RESPONSES				Total %
		A		D		
		f	%	f	%	
1.	I know how to search for information using different search engines.	200	81.30	46	18.70	246 100
2.	I use ICT in carrying out my research work.	180	73.17	66	26.83	246 100
3.	I use the social media to get updates on my academic field of study.	146	59.35	100	40.65	246 100
4.	I use social media to discuss with my classmate about academic matters.	191	77.64	55	22.36	246 100
5.	I can compose, attach file to e-mail and send e-mail messages	202	82.11	44	17.89	246 100

From table1, it can be observed that 200 representing 81.30% of the total respondents agreed that they know how to use ICT, while 46 (18.70%) disagreed. Also, 180 (73.17%) agreed that their use ICT enhance their academic performance, while 66(26.83%) disagreed. Again, 146(59.35%) agreed that they use social media to get updates on my academic field of study, while 100(40.65%) disagreed. Also, 191(77.64%) agreed that they use social media to discuss with classmate about academic matters; while 55(22.36%) disagreed. Also, 202(82.11%) agreed that they can compose attach file to e-mail and send e-mail messages, while 44 (17.89%) do not.

The results of the analysis indicate that the percentage of agreement for all the five items are higher than 50. This implies that competencies in ICT significantly influence academic performance of LIS undergraduate students in University of Calabar, Nigeria.

Research question two

What are the reasons for using the ICT resources by undergraduates LIS students in University of Calabar?

To answer this research question, responses to the items 6-10 on section B on the questionnaire were analyzed. The result is presented in Table 2

Table 2: Results of responses of the respondents on reasons for using the ICT resources by undergraduate students of University of Calabar,

S/N	ITEMS	RESPONSES				
		A		D		Total %
		f	%	F	%	
6	I use ICT to do my class assignment.	190	77.24	56	22.76	246 100
7	I use ICT for my project writing.	140	56.91	106	43.09	246 100
8	With my knowledge in ICT sourcing for information is no longer as difficult as before	178	72.36	68	27.64	246 100
9	I earned better grades when I use ICT during class presentation.	166	67.48	80	32.52	246 100
10	ICT have made me get instant message on current issues on my field of study via my computer /smart phone.	197	80.08	49	19.92	246 100

The result in Table2 shows that 190(77.24%) of the total respondents agree that use of ICT to do class assignment enhance academic performance while 56 (22.76%) do not. Furthermore, 140(56.91%) agreed that use of ICT for project writing leads to academic achievement and grades, while 106(43.09%) do not. Also, 178(72.36%) agreed that with knowledge in ICT sourcing for information is no longer as difficult as before, while 68(27.64%) do not. Also, 166(67.48) agreed that they earned better grades when they use ICT during class presentation; while 80(32.52%) do not. Again, 197(80.08%) agreed that ICT have made them get instant message on current issues on their field of study via computer /smart phone; while 49(19.92%) do not.

The result of the analysis, indicate that the percentage of agreement for all the five items are higher than 50. This result therefore signifies that the perceived reasons for using ICT resources by undergraduates of LIS students significantly influence their academic performance in University of Calabar, Nigeria.

Research question three

What are the available Information Communication Technology infrastructures for use by the undergraduates of LIS students in University of Calabar?

To answer this research question, the items11-15 of the questionnaire were analyzed. The result of the analysis is presented in Table 3.

Table 3: Results of responses of the respondents on availability of ICT infrastructures of LIS undergraduate students of University of Calabar,

S/N	ITEMS	RESPONSES				
		A		D		Total %
		F	%	F	%	
11	There are computer systems available for learning in my institution of learning.	130	52.85	116	47.15	246 100
12	Internet Facilities are available for learning on campus.	175	71.14	71	28.86	246 100
13	There is computer training Centre for students on campus.	145	58.94	101	41.06	246 100
14	There are E-Library learning facilities.	196	79.67	50	20.33	246 100
15	There exist Social-Media Platforms for learning.	176	71.54	70	28.46	246 100

The result in Table 3 reveals that, 130 (52.85%) of the total respondents agreed that there are computer systems available for learning in my institution, while 116(47.15%) do not. Also, 175(71.14%) agreed that internet Facilities are available for learning on campus, while 71(28.86%) are not. Also, 145(58.94%) agreed that there is computer training Centre for students on campus, while 101(41.06%) do not. Again, 196(79.67%) agreed that there are E-Library learning facilities, while 50(20.33%) do not. Finally, 176(71.54%) agreed that there exist Social-Media Platforms for learning, while 70(28.46%) do not.

The result of the analysis indicated that the percentage of disagreement for all the five items is higher than 50. This result therefore means that, availability of ICT infrastructures significantly influence academic performance of LIS undergraduate students in University of Calabar, Nigeria.

DISCUSSION OF FINDINGS

This section deals with the discussion of findings from the trends of the five research questions tested. The discussion is presented according to the research questions.

Research question one

The result of the first research questions revealed that competencies in ICT significantly influence academic performance of LIS undergraduate students in University of Calabar, Nigeria. The findings of this study is in line with the view of Logho & Nkiko, (2014) who observed that, most undergraduates contract their research projects and assignments, due to their embryonic

information literacy competence in ICT to source for information, through the use of the various information and communication technology available. Undergraduates in Nigerian Higher Institutions, have always considered their academic achievements and performance as a vital part of their academic career, negligence of not performing well in their academic endeavors have led to expulsion, academic probation, recommendation to change current course of study to another, academic insecurity during their course of study, low self-esteem due to poor academic performance, etc. This has made students embrace ICT which has the potential for not only introducing new teaching and learning practices, but can also empower teachers and learners and promote the growth of skills necessary for the 21st century work place.

Iqbal, and Ahmed, (2010) also revealed that in order to be successful, a country should improve its education system by implementing effective and robust ICT policies. From the above study, it is understand that there is relationship between the competency in the use of ICT in higher education and the students' academic performance. In our study we try to find the exact relationship between these two variables. The objective of the study is to measure various impact of ICT on education. For our study purpose students' CGPA refer is the basis of performance; the higher CGPA indicates higher performance and the lower CGPA indicates lower performance.

Kay and Lauricella (2011) also reported that laptops helped with learning, assignments, email, communication, and research. Tablet PCs have

the potential to alter the dynamics of schoolroom interaction through wireless communication in addition to pen-based computing technology that's fitted to analyzing and resolution engineering issues. ICT is seen as an indispensable tool to fully participate in the knowledge society. ICT, as well as computers, printer, telephone, the internet among others, is generally believed to foster cooperative learning, provide more information and, through simulation, make complex learning experiences easier to understand.

Research question two

The result of the second research question signifies that the perceived reasons for using ICT resources by undergraduates of LIS students significantly influence their academic performance in University of Calabar, Nigeria. The findings of this study is in agreement with the view of Kyoshiba (2009) who showed that Academic achievement is frequently defined in terms of examination performance, academic achievement and it is characterized by performance in tests, in course work and performance in examinations of undergraduate students. The most widely used term for academic achievement among undergraduates is by their Grade Points Average (GPA) or Cumulative Grade Points Average (CGPA). In other not to be lagging behind, undergraduates are now been charged to improve or advance existing knowledge to improve their academic achievement or performance through the use of best sources and resources to support their academic functions. (ICT) is regarded as the best technology used for handling information, including multi media and the internet, and devices such as video, cameras and mobile telephones, and with the use of personal computer (PC) or laptop, Smart phones, when attached to the internet can provide access to large quantity of information.

Amelito (2009) also indicate tremendously positive student reason on the effects of using the ICT on their learning experience. This has resulted in new opportunities in the integration of pedagogical and technological resources, which has enlarged flexibility across the learning process. It has equally improved the communication between lecturers and students and therefore the interaction between totally different instructional resources.

Research question three

From the information obtained in Table3, the result of the analysis indicates that availability of ICT infrastructures significantly influence academic performance of LIS undergraduate students in University of Calabar, Nigeria. The findings of this study is in line with the view of Aharony & Shonfield, (2015) who found that availability of ICT facilities and resources if widely utilized in everyday life, as well as in academic environment will enhance academic performance. It is very important that students assess and utilize ICT in order to understand their learning environments as well as their professional lives. As the focus on 21st-century skills intensifies, the role of the place, the professional, and the program must expand in diverse and sophisticated ways to accommodate all forms of societal values. This is the reason use of ICT in academic libraries include searches for information from reference materials, books, e-books, journals online, websites and newspapers. Importantly, the effective utilization of ICT can make the students participate actively within and outside the academic in meaningful development for the growth of the country. Echenique, Molías, and Bullen (2015) also found that the most popular ICTs among undergraduate students were computers and mobile phones. Facebook and Twitter were the most frequently used internet tools. The technologies were used for social and academic purposes. For personal and social purposes, most of the participants reported using Facebook, Twitter, mobile texts, and Whatsapp. For academic purposes, most of the participants used computers to access educational materials. Most of the participants used mobile phones and social media for educational collaboration purposes such as arranging work groups. The participants appreciated their flexible access to the internet and social media via their mobile phones.

CONCLUSION

Three research questions were formulated and tested in the course of this study. Based on the findings of this study, it was concluded that.

1. The extent of competencies in ICT significantly affect undergraduate of LIS students in University of Calabar
2. The reasons for using ICT resources significantly affect undergraduate of LIS students in University of Calabar

3. The availability of Information Communication Technology infrastructures significantly affect undergraduate of LIS students in University of Calabar

RECOMMENDATIONS

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

1. Government and educational managers should often encourage proper utilization of ICT facilities to enhance students learning.
2. Government in collaboration with school authorities should ensure adequate provision of computer training centers for students on campus with good internet access.
3. Government and school management should continue to provide ICT facilities like internet, projector, E - Library facilities, computer printers and social-media platforms to broadens students" knowledge and improve their overall learning experience.

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