International Journal of Educational Studies (INJEDS)
Vol. 4 Is. 1 (August 2025)
EISSN: 3092-8990
Website: https://www.injeds.com

INFORMATION COMMUNICATION TCHNOLOGY (ICT) SKILLS' NEEDS AND LIBRARY AND INFORMATION SCIENCE LECTURERS' PRODUCTIVITY IN MICHAEL OKPARA UNIVERSITY OF AGRICULTURE UMUDIKE NIGERIA

By

Dr Olusola Olowookere

iumous4all2008@gmail.com

&

Nene Favour Kalu Obasi PhD, *CLN*

nenekaluobasi@gmail.com

Department of Library and Information Science,

Michael Okpara University of Agriculture, Umudike,

Abstract

The study investigated the ICT skills need of library and information science lecturers and their productivity in Michael Okpara University of Agriculture, Umudike. The study adopted descriptive survey research design. Five research questions were raised to guide the study. The population of the study consisted of 21 LIS lecturers in Michael Okpara University library school. The instrument used in data collection was a researcher- developed, structured questionnaire. Data were analysed using descriptive statistics of frequency, mean and standard deviation. Finding of the study was that majority of the respondents have ICT skills need in word processing, Internet skills, presentation skills, online search and analytical skills, in the order of need. The study recommended among others that the LIS lecturers should take personal and committed steps in acquiring the skills with or without institutional funding support.

Keywords: Information Communication Technology, Skill Needs, Productivity, Lecturers and Information Science.

Introduction

The introduction of ICT into universities clearly changes the way education is conducted. Not only is it possible to work with distance learning and achieve a closer collaboration between

different universities, ICT is also paving the way for a new pedagogical approach where students and lecturers are expected to play a more active role than before. In using ICT as a tool in education, lecturers should be able to communicate, create presentations in PowerPoint, and interact with colleagues and students using technology. The increase in the use of ICT has facilitated the paradigm shift from traditional pedagogical method to innovative technological-based teaching and learning method imbedded in university educational programmes (Ubulom, 2011). Information and communication technology also comes with different facilities such as Internet, e-mail, CD-ROM, database, video conferencing, white board, PowerPoint, interactive white board, projector screen, wireless microphone, flipped classroom and so on. These facilities can help the lecturers to tap into the globalized world of information.

Adebayo et al (2018) affirmed that, timely and effective use of ICT in teaching and learning can assist in building a society and providing information which is paramount in the development of various sectors of the nation such as education, economy, and technology. No lecturer may boast of being more productive in teaching and learning in this current information environment without the possession of information and communication technology skills.

Library and Information Science lecturers can only thrive in teaching-learning process by properly harnessing and leveraging the efficacy of information and communication technology fora result-oriented library education and training. Library and information science lecturers are professionals who transfer educational knowledge, skills and attitude to the learners with the sole aim of knowledge building and production.

Apreala (2013) buttressed the point that the use of information and communication technologies (ICT) is fast gaining prominence and becoming one of the most important element of defining a functional education system. ICT enhances the quality of teaching and learning, the sharing of knowledge and information. It has the potential, according to Haddad and Drexler (2017), to contribute to effective learning through expanding access, promoting efficiency, improving the quality of learning, enhancing the quality of teaching, and improving management systems. ICT also offer possibilities for long life learning.

ICT skills need of a lecturer is an attempt at increasing the individual's ability to perform a job or task efficiently. In supporting this point, Olamitan et al, (2016) buttress that skills possessed by lecturers is an effort geared towards improving the level of knowledge, ability and attitude possessed by the individual for proficiency in a given task or job. In the field of LIS, ICT skills is crucial for lecturers to effectively engage in research, teaching and learning activities as well as to stay updated with the latest development in the field (Al-Shehri, 2020) To achieve this LIS lecturers have need for ICT skills such as word processing skills, internet

proficiency skills, online search skills, analytical skills, and presentation skills. In the event of absence or shortage of these skills, it is very doubtful if sustainable productivity in teaching and learning, and research can be achieved. This work therefore, seeks to determine the information and communication technology skills need of LIS lecturers and their productivity with focus on Michael Okpara University of Agriculture, Umudike, Nigeria.

Statement of the Problem

ICT has permeated every aspect of human activities including education. It triggers and sustains interest in teaching, learning and research and has the potential of enhancing learning and research outcomes. Lectures are supposed to be vast in all aspects of ICT from the basic computing skills to produce and present a document, to navigating through the whole mass of knowledge in the digital space in order to be properly poised for their work. Under this condition, productivity is achieved. Observation as well as interaction with lecturers in some universities indicated that many lecturers are not as skilled enough as they ought to be, neither are they thorough in the understanding of the operations and application of ICT packages to their work and career. This would seemingly affect the productivity of LIS lecturers and by extension their students. It therefore calls for an investigation into the ICT skills needs and LIS lecturers' productivity in Michael Okpara University of Agriculture, Umudike.

Purpose of the Study

The purpose of the study is to examine information and communication technology (ICT) skills need of LIS lecturers for their productivity in Michael Okpara university of Agriculture, Umudike. Specifically, the study sought to:

1. Examine the word processing skills need of LIS lecturers for their productivity in Michael Okpara University of Agriculture, Umudike.
2. Determine the presentation skills need of LIS lecturers for their productivity in the university under study.
3. Determine the Internet proficiency skills need of LIS lecturers for their productivity in Michael Okpara university of Agriculture, Umudike.
4. Examine the analytical skills need of LIS lecturers for their productivity in Michael Okpara University of Agriculture, Umudike
5. Determine the online search skills need of LIS lecturers for their productivity in the university under study.

Research Questions

In line with the specific purposes of the study, the following research questions were answered:

1. What are the word processing skills need of LIS lecturers for their productivity in Michael Okpara University of Agriculture, Umudike.
2. What are the presentation skills need of LIS lecturers for their productivity in the university under study?
3. What are the Internet proficiency skills need of LIS lecturers for their productivity in Michael Okpara university of Agriculture, Umudike.
4. What are the analytical skills need of LIS lecturers for their productivity in Michael Okpara University of Agriculture, Umudike
5. What are the online search skills need of LIS lecturers for their productivity in the university under study?

Literature Review

1. The review focused on studies on the various ICT skills of those in the library and information field as it affects their productivity, which by implication is a major way of determining the current and continuous need for the ICT skills.

2. Davis (2020) carried out a study on training needs assessment of library and information science professional in private universities, in order to identify the specific word processing skills required by them. The findings revealed that library and information science lecturers required a range of word processing skills, including document formatting, templates, mail merge, and collaboration features. The study concludes that there is a need for targeted training programs to enhance word processing skills among library and information science lecturers so that library and information science lecturers can effectively handle word processing tasks and improve their productivity. Likewise, Wilson (2019) investigated Word Processing Proficiency and job performance of library support staff. The study measured members' abilities to perform tasks such as document formatting, mail merge, and template utilization. Findings revealed that staff members with higher word processing skills demonstrated greater efficiency, accuracy, and effectiveness in their job tasks. These reviewed studies are relevant to the present study with regard to word processing skills as one of the variables for investigation. However, they differ in the sense that while the present study is on LIS professionals in a public university, the reviewed works are on lectures in private universities and on library support staff respectively.

3. Gupta (2018) carried out research on enhancing presentation skills for Library and Information Science professionals. The objective was to evaluate the impact of combining online modules with face-to- face workshops in developing presentation competencies. A quasi- experimental design is employed, dividing participants into two groups: a control group and an experimental group. The experimental group, which received online modules in addition to face-to face workshops, demonstrates enhanced abilities in structuring presentations, using visual aids effectively, and engaging the audience.

4. Equally, a study by Okpokwasili (2018) sought to determine the power-point application skills need of library and information student's students for job performance in public service in Imo State. The result showed that PowerPoint application skills of Library and Information science Lecturers are highly needed with positive improvement index. The reviewed work focused on undergraduates while the present study is basically on LIS lecturers. In the same vein, Chen (2019) conducted a study to explore the impact of presentation skills on information literacy instruction as perceived by library and information science lecturers. The findings revealed that effective presentation skills significantly enhance information literacy instruction. The reviewed studies on presentation skills need focused only on presentation skills as against the wide ICT skills which is the focus of the present work.

5. Anderson (2022) carried out a study that assessed the Internet proficiency skills among Library and Information Science professionals in South East Nigeria. The findings indicated that while library and information science professionals in South East Nigeria generally possess a moderate level of internet proficiency, there are gaps in certain areas. Similarly, Lewis (2021) did a study aimed at exploring the internet proficiency skills of library and information science lecturers; comparing their skills across different educational institutions in South East Nigeria. The study assessed lecturers' internet proficiency in various areas, including information retrieval, online communication, and digital tools usage, and critical evaluation of online resources. The findings revealed significant variations in internet proficiency skills among library and information science lecturers across different educational institutions. Lecturers from institution with better internet infrastructure and resources exhibited higher proficiency levels. The relationship between the reviewed works and the present study is that they both focused on internet proficiency. However, the former work focused on library professionals while the later, adopting a different research design and method, did not relate internet proficiency to productivity, hence the need for the present study.

6. Yemisi and Musa's (2021) study on internet literacy skills investigated influence of internet literacy skills on research productivity of academic staff of federal universities in

Northeastern, Nigeria. The results of the study among others showed that internet literacy skills had no significant effect on research productivity of academic staff in federal universities in the North-eastern.

7. Okoro (2019) carried out a survey study on assessing analytical competencies of Library and Information Science Lecturers in South East Nigeria. The primary purpose was to identify the areas where lecturers required additional training and support to enhance their analytical skills, ultimately improving their productivity in the academic environment. The study revealed that while many library and information science lecturers in South East Nigeria possess basic analytical skills, there are areas where improvement is needed. Specifically, lecturers expressed the need for further training in advanced data analysis methods, information synthesis, and critical thinking. Equally in Nwanko's (2021) study, the research aimed at presenting a framework for developing analytical skills among library and information science lectures in South East Nigeria. The framework serves as a guide for curriculum development and professional training programs, addressing the specific needs of lecturers and enhancing their productivity in the field. The framework emphasized the development of competencies related to data analysis, information evaluation, critical thinking, and problem-solving. Similarly, Okafor (2017) did a paper on the role of analytical skills in digital age and their implications for Library and Information Science Lecturers in South East Nigeria. According to him, the ability to analyze large datasets, utilize data visualization tools, critically evaluate online information sources, and apply emerging technologies are crucial competencies needed by lecturers to remain effective and productive. Additionally, the study emphasizes the importance of adaptability and continuous professional development to keep pace with the rapid changes in the digital landscape.

8. Garcia (2020) carried out a study on information literacy and online search skills to examine the proficiency of library users in information literacy and online search skills. The findings reveal varying levels of proficiency in information literacy and online search skills among library users. While some users demonstrated a good understanding of search techniques and resource evaluation, others exhibited challenges in formulating effective search queries and critically assessing information credibility.

Abbas and Siddique (2020) conducted a study on ICT competencies among university library professionals of Punjab, Pakistan. It revealed that the librarians possessed office-related ICT competencies in email management, MS word, but intermediately skilled in MS power point and MS Excel. On core library related ICT competencies, the study further showed that the librarians possessed advance status in library management system and other library

professional activities such as; digitization, e-reference services. The study also showed that the respondents are significantly ICT competent in using the search engines, but moderate competencies in web technologies such as proficiency in using social media, discovery tools, and utilization of cloud computing. It further revealed that the respondents possessed simple online searching skills but lack advance level expertise in database browsing and advance searching technique due to the inadequate training opportunities.

From the reviewed literature, there was no study conducted on information communication technology skills need of LIS lecturers and their productivity in Michael Okpara University of Agriculture, Umudike, Nigeria. Particularly, none of the studies investigated the various components of ICT skills need such as word processing skills, presentation skills, internet proficiency skill, analytical skills and online search skills. Hence, these are research gaps that this study intends to fill, by determining the information communication technology skills need of LIS lecturers and their productivity in Michael Okpara University of Agriculture, Umudike.

Methodology

The design of the study was descriptive survey. Aina (2004) stated that a descriptive survey design has always been the commonest way for gathering information by seeking the opinions of individuals, the consensus of which is expected to provide a solution to the problem. The population of this study is 21 LIS lecturers in Michael Okpara University of Agriculture, Umudike (MOUAU). There was no sampling because the population is small and of a manageable size. Researchers-developed structured questionnaire was used to collect date for the study. Responses were rated on a four-point rating scale of: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD).Analyses of the data based on the research questions were done using mean and standard derivation. In answering the research questions, a midpoint of 2.50 was chosen as the criterion mean.

Results

Research Question 1: What is the word processing skills needs of LIS lecturers for their productivity in Michael Okpara University of Agriculture, Umudike?

Table 1: Word Processing Skills Need and LIS Lecturers' Productivity

S/N	ITEM STATEMENT	SA	A	D	SD	Mean	St. Dev.
1	I can create a document with the file name	17	4	0	0	3.81	.402
2	I can effectively type with moderate speed	5	16	0	0	3.24	.436

3	I have skills for preview documents and publication	6	15	0	0	3.29	.463
4	I can effectively fax/email a document	6	15	0	0	3.29	463
5	I can create/insert a table, symbols and pictures on documents.	14	7	0	0	3.67	.483
6	I can backup documents and publications on CDs and DVDs	12	9	0	0	3.57	.507
7	I can effectively create, import/export text, graphics, tables from various sources	9	12	0	0	3.43	.507
8	I have the skills to add a table to a document and edit rows and columns	13	8	0	0	3.62	.498
9	I can effectively use bullets and numbering	11	10	0	0	3.52	.512
10	I have ability to save, typed documents with desired file name	11	10	0	0	3.52	.512
11	I can change margins and line spacing	12	9	0	0	3.57	.507
12	I can use tab keys for indexing	10	11	0	0	3.48	.512
13	I can format typed document	7	14	0	0	3.33	.483
14	With word processing skills correction can be made easily	7	14	0	0	3.33	.483
	Grand Mean					**3.49**	

Results in Table 1 showed that all the respondents agreed that word processing skills are needed for LIS lecturers' productivity in the university under study. The results further revealed that the major word processing skills needed for their productivity are document creation with a mean score of 3.81, inserting a table (3.67), and exporting/importing data from various sources (3.52).

Research Question 2: What is the presentation skills need of LIS lecturers for their productivity in Michael Okpara University of Agriculture, Umudike?

Table 2: Presentation Skills Need and LIS Lecturers' Productivity

S/N	What presentation skills do you need for your productivity?	SA	A	D	SD	Mean	SD
1	Use power point for presentation	8	11	2	0	3.29	.644
2	Create a simple slide show with text images	7	12	2	0	3.24	.625
3	Choose appropriate slide design and layout for presentation	8	9	4	0	3.19	.750

4	Select objects with selection object tool for presentation	9	8	4	0	3.24	.768
5	Generate appropriate graphs (histogram, bar, columns, line, metrics) for presentation	5	12	4	0	3.05	.669
6	Create a master slide template for presentation	5	14	2	0	3.14	.573
7	Use projector for presentation	5	14	2	0	3.14	.573
8	Add sounds (and other forms of animation) in power point for presentation	17	4	0	0	3.81	.402
9	Effectively use a digital camera to create a graphic for presentation	6	15	0	0	3.29	.463
10	Use scanner to convert a picture into a graphic file for presentation	5	15	1	0	3.19	.512
11	Effectively upload database forms to the web for presentation	6	14	1	0	3.24	.539
12	Work with menus e.g. file, view, edit, arrange, effects, bitmaps, and text for presentation.	12	9	0	0	3.57	.507
13	Effectively use electronic board for presentation.	11	9	1	0	3.48	.602
14	Generate charts for presentation	8	12	1	0	3.33	.577
	Grand Mean					**3.30**	

The grand mean of 3.30 in Table 2 showed that the respondents agreed on their need for presentation skills for their productivity. Findings revealed that their major presentation skill need is adding sounds and other forms of animation in their presentation (3.81), followed by file formatting (3.57).

Research Question 3: What is the internet proficiency skills need of LIS lecturers for their productivity in Michael Okpara University of Agriculture, Umudike?

Table 3: Internet Proficiency Skills Need and LIS Lecturers' Productivity

S/N	What internet proficiency skills are needed for your productivity?	SA	A	D	SD	Mean	SD
1	Create web page for teaching	16	5	0	0	3.76	.436
2	General understanding of web structure addresses	13	8	0	0	3.62	.498

3	Ability to upload lecture notes on the web	11	10	0	0	3.52	.512
4	Effectively download information from the web	9	12	0	0	3.43	.507
5	Skills to retrieve an email	12	9	0	0	3.57	.507
6	Effectively use multiple browser skills	9	13	0	0	3.40	.503
7	Ability to use internet service like Telnet, (Newsgroup and file transfer protocol)	8	11	2	0	3.29	.644
8	Teleconferencing skills for meetings	10	9	2	0	3.38	.669
9	Connection among other forms of technology needed in teaching and learning	8	11	2	0	3.29	.644
10	Skills to reply an email	4	15	2	0	3.10	.539
11	Ability to use file transfer protocol	6	13	2	0	3.19	.602
	Grand Mean					**3.41**	

The findings showed that the LIS lectures have need for Internet proficiency skills for their teaching and research productivity based on the grand mean score of 3.41 in Table 3.Their foremost areas of internet skills need are creating web pages for teaching (mean score of 3.76), understanding web structure address (3.62), retrieve email with attachment (3.57) and upload lecture notes on the web (3.52).

Research Question 4: What is the analytical skills need of LIS lecturers for their productivity in Michael Okpara University of Agriculture, Umudike?

Table 5: Analytical Skills Need and LIS Lecturers' Productivity

S/N	Analytical skills needed for your productivity	SA	A	D	SD	Mean	SD
1	Ability to assist students analyze information from the varied sources of ICT	6	15	0	0	3.29	.463
2	Using ICT tools to teach students and users how to construct simple searches	2	19	0	0	3.10	.301
3	Assist students and users, to criticize, to synthesize, and to present information using ICT tools such as interactive white boards, (internet browsing, smart board, simulation, modelling etc.)	7	14	0	0	3.33	.483

5	Ability to describe difficulties in using ICT to achieve planned lesson for students	5	16	0	0	3.24	.436
6	Management of ICT applications in class based learning environment	7	14	0	0	3.33	.483
7	Understand complex data set and identify incorrect assumptions	7	14	0	0	3.33	.483
8	Identify statistical problems and develop effective solutions in online environment	12	9	0	0	3.58	.507
9	Draw meaningful insights from online data	8	13	0	0	3.37	.496
10	Assist students and users to present information using ICT tools such as stimulation.	10	11	0	0	3.47	.513
	Grand mean					**3.00**	

Results in Table 5 showed an aggregate score of 3.00, implying that the respondents have need for all the sub skills that make up analytical skills in an online environment. Their foremost area of skill need from the table is identifying statistical problems and developing efficient solutions to them (3.58), while their area of least need is using ICT to teach on how to construct a search (3.10).

Research Question 5: What is the online search skills need of LIS lecturers for their productivity in Michael Okpara University of Agriculture, Umudike?

Table 6: Online Search Skills Need and LIS Lecturers' Productivity

S/N	Online skills needed for your productivity	SA	A	D	SD	Mean	SD
1	Access to quality literature for research works	9	10	2	0	3.33	.658
2	Searching to improve research visibility on the web	6	13	2	0	3.19	.602
3	Locate contacts with colleagues and experts world wide	5	13	3	0	3.10	.625
4	Search for online course trainings	5	13	3	0	3.10	.625
5	Locating professional magazines and journals	3	16	2	0	3.05	.498
6	Self – exploration on the internet	4	13	4	0	3.00	.632
7	Access current research findings	8	9	4	0	3.19	.750
8	Quick access to e-resources in librarianship	7	12	2	0	3.24	.625
9	Search Electronic databases	7	12	2	0	3.24	.625
10	Search for online workshops, conferences and seminars	7	12	2	0	3.24	.625
11	Navigating the internet Updating knowledge in the field of librarianship	9	10	2	0	3.33	.658
	Grand Mean					**3.18**	

Results from Table 6 of a grand mean of 3.18 revealed that the LIS lecturers in the university under study have need for online search skills. It further revealed that the most needed skills

are access to quality literature and skills in navigating online for updating knowledge in librarianship, both having mean score of 3.33.

Discussion

The findings on the word processing skills need and LIS lecturers' productivity showed that all the respondents agreed that word processing skills are needed for the lecturer's productivity. This finding is in line with the findings of Davis (2020) and Wilson (2019), which reported that LIS lecturers required a wide range of word processing skill. Wilson reported a marked improvement of library staff with high word processing skills in job tasks in terms of efficiency, accuracy and effectiveness than those who did not have them. These findings are in line with current work demands of lecturers involved in teaching, research and administrative works. Confidential works such as examination and results documents need not to be taken outside. Also proofreading, typing of research reports are better done by the (owners) lecturers than outsourcing, occasioned by lack of skill.

On the presentation skills needs of the lecturers for their productivity, findings equally indicated majority are in need of the skills. The findings agree with Gupta (2018) and Okpokwasili (2018) which results revealed that power points application skills were highly needed by LIS students for future job performance as well as helping in powerful engagement with audience, in the respective studies. Similarly, Chen (2019) reported of improved information literacy instruction arising from effective presentation skills. Indeed, presentation skills are highly needed for audience engagement and attention getting, especially in conditions of students' population explosion and high teacher-student ratio.

Results of internet proficiency skills need of LIS lecturers for their productivity is quite positive. Anderson's recent (2022) study confirmed this need. Also Lewis (2021) findings corroborated the findings. It however revealed variations of internet skills possession, with those in institutions with better internet facilities doing better than others. The findings are not surprising because internet has pervaded all aspects of education- students' teaching and learning, research, collaboration, communication, networking and other tasks needed for survival in this globally network era. Surprisingly, Yemisi and Musa's (2021) finding did not agree with the others. Their respondents' internet skills had no significant effect on (the academic staff's) productivity. This may be that the staff have become very proficient in the internet skills that it didn't again add to or reduce their productivity.

On analytical skills, findings are in tandem with Okoro (2019), Nwankwo (2021) and Okafor (2017) findings and views, to the effect that analytical skills are crucial competences for lecturers to remain effective and productive, coupled with the need to develop framework for training in data analysis, critical thinking problem-solving skills.

Similarly, on online search skills needs for productivity, the result turned very positive. The findings are in congruence with Garica (2020) which revealed the need for online search skills as those he studied had challenges in formulating effective search queries. Much information are indeed available online for searching, discovery and retrieval. Lack of skills would mean a large chunk of information not discoverable, not retrievable and thus unused.

In the final analysis, the ICT skills needs of LIS lecturers all came out positive, supporting the findings of Abbas and Siddique (2020) which showed ICT skill needs in all areas of work for Librarian, and now for this study, LIS lecturers.

Conclusion

Arising from the results and their discussion, the study concludes that LIS lecturers have need in ICT skills of word processing, presentation skills, internet proficiency, analytical skills and online search skills for their productivity. These need areas from the results revealed priority in the word processing skills, followed by internet skills, then presentations, online and analytical skills. These needs if addressed are capable of boosting the productivity of LIS lecturers.

Recommendations

1) LIS lecturers should take the bull by the horn to engage in training in areas of their difficulty; not relenting in jumping at the occasional opportunities for trained for free of charge.

2) NALISE, NLA, and LRCN should know the critical areas of ICT skills needs in order to give it an adequate research attention

3) MOUAU management should through the ICT unit organize workshops from time to time for lecturers at no or minimal cost

4) The library school should organize workshops on data literacy and the other areas of need of the lecturers.

5) The Department should strive to have a functional and well-equipped model library/laboratory with internet and ICT facilities with constant power for lecturers' and students' use.

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