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Digital Literacy Competencies among Library Officers in State and Federal Universities in Ogun State, Nigeria

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ABSTRACT

The adoption of technology has a great influence on the role and function of professionals in academic libraries. This study assessed the levels of digital literacy competence based on the use of computer/digital devices among professional library staff in Federal and State-owned

Universities in Ogun State in Nigeria. The target population for the study consisted of library officers (paraprofessional staff) using a total enumeration for the population (N=32). The descriptive survey design was adopted. Data were collected using a structured questionnaire tagged "Digital Literacy Skills Questionnaire" (DLSQ) consisting of 14 items on a four-point Likert-type scale, and a response rate of 87.5% was achieved. Three hypotheses were tested at a 0.05 level of significance. Data were analyzed using frequency counts, percentage, means, standard deviation, and t-test statistical analysis. Results indicated that there was a significant difference in the level of digital literacy skills possessed by library officers in State university. There was no significant difference in the level of use of digital devices among the staff in the two academic libraries. Based on the findings showed a high level of digital literacy competence. The study recommended that library management give adequate support to training and retraining library officers in their quest to acquire digital literacy competencies to enhance their daily work processes.

INTRODUCTION

The fast-growing Information and Communication Technology (ICT) and use of computers prevalent across all human activities, including academic libraries, attract greater attention to digital literacy skills globally. In recent years, digital literacy skills are increasingly needed in modern libraries because the development and use of ICT are affecting the way information professionals work and repackage information in the digital age. Digital information resources and new digital devices such as smartphones, tablets, computers, and laptops have transformed academic library services and promoted innovation. With emerging technology, libraries are transforming into a variety of forms such as Electronic or Virtual/ Digital libraries influencing the changing roles of library professionals. Prior to the evolution of digital libraries, information processing was manually oriented, a system which is no longer supporting the present digital transformation. The emergence of the digital era has brought a paradigm shift into library services, influencing the functions and roles of information professionals using

computers and new digital devices for performing various house-keeping jobs such as cataloging, classification, acquisition processing, reference work, and serial control to deliver various computerized services to the library. The staff working in the new modern library are required to acquire new competencies and appropriate skills to function effectively. Bitri (2016) emphasized the need for information professionals to acquire appropriate digital competencies to use emerging technological facilities and promote effective services for better job performance.

Achievement of the goals of academic libraries rests squarely on personnel. Personnel is valuable assets and a leading factor in determining the success and effectiveness of library services. Library personnel is made of librarians, library officers, and clerical support staff. Librarians are the core information practitioners and managers who call the shots and superintend activities in the academic libraries. The concern of this study is library officers, otherwise referred to as paraprofessional staffs. In Nigeria academic libraries, paraprofessional staffs are non-graduates who hold either Diploma or Higher National Diploma in librarianship. By education, training, and orientation they are traditionally prepared to work under the librarian and, as such, engage in technical support duties such as copy cataloging, serials controls, book selection, circulation, routine technical tasks, barcoding, word processing, and any other duties assigned by the librarians (Zhu, 2012; Nwalo, 2009). Zhu (2012) observed overlapping responsibilities between librarians and paraprofessionals, but he maintained that paraprofessional staffs are not adequately supported with training and development.

There is a growing concern that many information providers lack digital skills and many have no adequate knowledge and skills to use and operate technology facilities and digital gadgets. Previous studies attested to deficiency in digital literacy competence, low level of computer literacy skills, and little exposure to the use of ICT among professional staff generally in academic libraries in Nigeria. It is on this premise this study aimed to assess the level of digital

literacy skills and competencies possessed by library officers in two public university libraries in Ogun State, Nigeria.

To determine library officers' level of digital literacy competence, the following three hypotheses were tested at a 0.05 level of significance.

H0 1: There is no significant difference in the level of digital literacy skills possessed among the library officers in State and Federal institutions

H0 2: There is no significant difference in the frequency of use of computers among library officers in State and Federal institutions

H0 3: There is a significant difference in the level of competence in the use of digital tools among library officers in the two university libraries

LITERATURE REVIEW

Digital Literacy Competency

The development of digital libraries and digitization of information resources have increasingly made the concept of digital literacy skills important in academic libraries. Digital literacy has received many definitions from many authors. Cornel University sees digital literacy as an individual's ability to find, evaluate, utilize, share and create content using information technologies and the Internet. American Library Association refers to digital literacy as the ability to use Information and Communication Technology (ICT) to find, evaluate, create and communicate information requiring both cognitive and technical skills. Buckingham (2006:3) defines it as "a set of skills and knowledge that enables individuals to effectively carry out information retrieval tasks in a technology-dominated environment such as digital libraries." OECD (2016) grouped digital literacy skills into three: the ability to use technologies in daily work processes (access to information online), ability to produce ICT products and services

(such as programming, developing applications and managing networks); and competence to process complex information to communicate with team and users/patrons to solve problems. The European Commission (EC) states that digital skills are the basis of digital competence, which involves the confidence and critical use of information technology for work, leisure, learning and communication. It needs to be emphasized that digital literacy encompasses knowledge and skills to use a broad range of devices such as smartphones, tablets, laptops and desktops, as well as social networking. Consequently, in line with the above and in the context of this study, a digitally literate or technical skilled library officer should have the capability to confidently and proficiently manipulate, operate ICT tools (computers, internet, printer, scanner, photocopy machine, binding machine, laminating machine, television, projectors and telephony among others) as well as digital gadgets to carry out effective library services.

On their part, Warshauer and Matuchaiak (2010) underscored three sets of interdisciplinary skills: knowledge of information, media and technology, learning and innovation skills, and life and career skills to be digitally literate in the digital age. Anand (2014) identifies personal and professional/technical competencies. According to Anand, professional skill is about knowledge of information resources, to access and use technology to provide effective services while personal competence is about attitudes and values required by professionals to work in the modern library. He concluded that training would improve professional development and effective skills are key to productivity. Ugwuanyi (2009) enumerated skills required for professionals to operate and function a modern library. They include knowledge of computer operations such as (turning a computer on, opening a folder, copying a file from one disc to another, scanning), mastery of the use of application software (word processing, printing of documents) as well as the ability to use the World Wide Web (WWW), engaging in an on-line discussion or chatting (teleconferencing), answering and sending e-mail attachments. Inyang and Mngutayo (2018) emphasized that basic computer skills involve knowledge of computer hardware, understanding computer and operating systems. Anyaoku (2012: 128) emphasized that “skill for using the Internet and computer communication networks, networking and Web

2 .0 skills are necessary for the continued existence of library professionals". On this note, Sani and Musa (2019) maintained that a professional Information worker without digital literacy competence would become irrelevant while a digitally literate will be productive. This buttressed that digital literacy skills are crucial for professionals who want to make a difference in a new library environment.

The value of digital literacy for information professionals cannot be overemphasized. It is vital to effective use of technology and digital gadgets in sharing information, afford staff the opportunity to find, manage, and store information/content safely, and reduce the burden of unnecessary tasks (Osinulu, 2018). Aside from the fact that digital literacy will boost employment and enhance career progression which will, in turn, result in greater job satisfaction. The skill will foster teamwork within library units, improve professionals' overall performance and standard of living (Emiri, 2015).

Evidence from the earlier studies (Adeyoyin, 2006; Ajidahun, 2007; Adomi and Annie, 2006) already showed that computer/digital literacy skills are low and moderate among information professionals. Ademodi and Adepoju (2009) examined computer literacy skills among librarians in academic libraries in Ondo and Ekiti States, Nigeria. The findings revealed that librarians are computer literate but the rate of competence was low with few available computers. Safahieh and Asemi (2010) assessed the level of computer use, skills and experience of librarians as well as source of acquiring computer literacy in Iranian universities libraries. The findings revealed moderate possession of skills by the library professionals and informal sources for skill acquisition. Matthew and Baby (2012) in a survey "developing technology skill for academic librarians in universities in India," found that majority of the library professionals are unaware of ICT facilities and services.

In an assessment of ICT literacy skills of library users and staff in Salem University, Lokoja, Kogi State, Nigeria, Anyim (2018) revealed that staff possessed digital literacy skills in turning on computer, connecting to the Internet, opening computer files, word-processing, sending email messages, deleting files from computers and using www search engine are very high. Similarly, Oyedokun, Oyewunmi, Akanbi and Laaro (2018) found that paraprofessional and library staff in three Universities in Kwara State possessed a high level of ICT competence in basic computer skills. Bansode and Viswe (2017) examined the ICT literacy skills of library professionals in university libraries in India. The findings reveal that the ICT literacy level was satisfactory and majority of professionals had basic literacy skills to handle daily library operations. On ICT-related information literacy skills in Colleges of Education (COE) in Nigeria, Baro and Eze (2015) found that professionals in Federal Colleges of Education had higher literacy skills than their state counterparts and concluded that those with Bachelor's Degree rated higher than others with lower professional qualifications.

The reviewed literature noted that acquisition of digital literacy skills is important and inevitable in the new library environment. While studies abound on computer/digital literacy competence among librarians. Although, there was no known study conducted among paraprofessional staff partly because library officers are not expected to handle multi-dimensional aspects of library functions and may not be at the same level with academic librarians because of their lower qualifications. However, it is expected that every professional should possess appropriate digital literacy skills and competence in order to be relevant in the new library environment. This study, therefore, focuses on assessing digital literacy competencies of library officers in university libraries in Ogun State in Nigeria.

METHODOLOGY

A survey method was used for the study. The target population consisted of all library officers in two public Universities in Ogun State, Nigeria: State and Federal Owned Universities. The total enumeration for the population (N=33) was used for the study. Out of the thirty (33) library officers sampled through a structured questionnaire in the selected universities, only 28 were returned and found usable, which accounted for about 85% rate of return. A structured questionnaire tagged “Digital Literacy Skills Questionnaire” (DLSQ) was used as the research instrument for data collection. The questionnaire was divided into two sections. Section A contained demographic information on the respondents and Section B contained the research questions. The questionnaire was validated in another university within the state with the reliability coefficient of 0.89. Data were analyzed using frequency counts, percentage, mean and standard deviation. The hypotheses were tested at a 0.05 level of significance.

DATA ANALYSIS

Table 1: Distribution of respondents by university libraries

Institutions	Frequency	Percentage (%)
State owned	16	57.1
Federal owned	12	42.9
Total	28	100

Table 1 shows that 57.1% (16) of the respondents are from the State while 42.9 (12) of the respondents are from Federal institutions. Information on the respondents’ background revealed that there were more female respondents than males in the two libraries surveyed. Female 15 (53,06%); Male 13 (46.04%).

Table 2: Level of digital literacy competence possessed by respondents

S/N	**Digital literacy skills possessed by staff**	**Low**	**Moderate**	**High**	**Very High**	**Mean**	**SD**
1.	I can find information on the Internet	-	1 (3.6%)	6 (21.4%)	21 (75.0%)	3.71	0.53
2.	I can type/word process	-	1 (3.6%)	8 (28.6%)	19 (67.9%)	3.64	0.55
3.	I can scan, upload and download	-	1 (3.6%)	11 (39.3%)	16 (57.1%)	3.54	0.58
4.	I can use digital tools/devices, e.g., laptops, desktops	-	8 (28.6%)	4 (14.3)	16 (57.1%)	3.29	0.90
5.	I can operate digital devices, e.g., laptops, Desktops for work	1 (3.6%)	5 (17.9%)	10 (35.7%)	12 (42.9%)	3.18	0.86
6.	I can share and file information	2 (7.1%)	3 (10.7%)	11 (39.3%)	12 (42.9%)	3.18	0.91
7.	I can turn in and off computer	-	7 (25.0%)	9 (32.1%)	12 (42.9%)	3.18	0.82
8.	I can send an email with an attachment		10 (35.7%)	8 (28.6%)	10 (35.7%)	3.00	0.86
9	I can delete files from computer	3 (10.7%)	6 (21.4%)	6 (21.4%)	13 (46.4%)	3.04	1.07
10	I can scan disks for Viruses	2 (7.1%)	5 (17.9%)	7 (25.0%)	14 (50.0%)	3.18	0.98
11.	I have social media account	3 (10.7%)	9 (32.1%)	6 (21.4%)	10 (35.7%)	2.82	1.01
12.	I can create a basic excel spreadsheet	2 (7.1%)	6 (21.4%)	8 (28.6%)	12 (42.9%)	3.07	0.98
13.	I can copy and paste text in a document	2 (7.1%)	7 (25.0%)	10 (35.7%)	9 (32.1%)	2.93	0.94
14	I can engage in online discussion or chatting (teleconferencing)	3 (10.7%)	12 (42.9%)	5 (17.9%)	8 (28.6%)	2.64	1.03
	N= 28	**Criteria Mean = 2.50, Average Mean = 3.17**					

Table 2 reveals that the library officers in two selected public universities in Ogun State, Nigeria, possessed high level of digital literacy skills to use digital tools. This is using the average mean which is greater than the criterion mean of 2.50 set for high level of digital literacy competence.

Digital literacy competence established which ranked highest include "I could use mobile communication easily" ($\bar{x}$ = 3.71), followed by "I could properly turn and shut down a computer" ($\bar{x}$ = 3.64), "I could start and exit a computer program" ($\bar{x}$ = 3.54) and "I could engage on online discussions (teleconferencing)" ($\bar{x}$ = 2.64) ranked least. The inference to be drawn is that library officers in the two selected public universities in Ogun State possessed a high level of digital literacy skills (Weighted Mean = 3.17).

TESTED HYPOTHESES

$H0_1$: *There is no significant difference in the level of computer/digital literacy skills possessed by library officers in State and Federal universities*

Table 3: Independent sample t-test showing significant differences in the level of digital literacy skill possessed by library officers in State and Federal universities.

Institutions	N	Mean	SD	Std Error	t-cal.	Sig of t
State-owned	16	40.81	0.99	2.47	2.41	0.023
Federal owned	12	49.17	0.79	2.27		

Table 3 reveals a significant outcome (t = 2.41, p<0.05). This implied that, there is a significant difference in the level of digital literacy skills possessed by library officers in State and Federal institutions. It is noted that State university with 16 library officers had a mean of 40.81 and Federal university with 12 library officers had a mean value of 49.17. It can be inferred from Table 3 that there is a significant difference in the level of digital literacy competencies possessed by the staff in each institution. The latter possessed higher-level digital literacy skills than the former.

$H0_2$: *There is no significant difference in the frequency of use of digital devices among library officers in State and Federal universities.*

Table 4: Independent sample t-test showing significant differences in the frequency of use of digital devices among library officers in State and Federal universities

Institutions	N	Mean	SD	Std Error	t-cal	Sig of t
State owned	16	32.06	6.40	1.60	0.72	0.479
Federal owned	12	34.17	9.12	2.63		

The result in Table 4 revealed a non-significant outcome (t = 1.06, p>0.05). This outcome implied that there are no significant differences in the frequency of use of digital devices among library officers in State and Federal university. The result shows that Federal university had a higher mean score of 34.17 while State university had 32.06.

$H0_3$: *There are no significant differences in the level of competence in the use of digital devices among library officers in State and Federal universities*

Table 5: Independent sample t-test showing significant differences in the level of competence in the use of digital devices among library officers in State and Federal universities

Institutions	N	Mean	SD	Std Error	t-cal	Sig of t
State	16	23.44	4.87	1.22	1.06	0.298
Federal	12	20.91	7.67	2.21		

Table 5 reveals a non-significant outcome (t = 1.06, p>0.05). This implied that there are no significant differences in the level of competence in the use of digital devices among library officers in State and Federal universities. Hence, the null hypothesis is accepted. Therefore, it is concluded statistically that there is no significant difference in the use of digital devices among the staff of the two academic libraries.

DISCUSSIONS

Findings show that the level of digital literacy competence possessed by library officers in the State and Federal universities was high. The respondents had the required basic skills to use and operate computers required for library routine and daily tasks. The findings aligned with Anyim (2018), Oyedokun, Oyewunmi, Akanbi and Laaro (2018) and Bansode and Viswe (2017). While the findings could be viewed as an improvement over earlier studies on low computer skills and aligned with Anyaoku (2012) that there is increased awareness and spread of ICT in many academic libraries. The finding also dovetails into the level of competence in the use of digital devices among library officers in State and Federal. The finding is an indication that digital competence is a precursor to increased use of digital gadgets/technology facilities among library officers in the two university libraries. However, the library officers are not adequately competent in some skills while a few of them do not have social media account. The inference to draw from the findings is that the more digital literate staff are, the greater their ability to use digital devices and technological facilities which will enhance their job performance as library officers.

CONCLUSION

Digital literacy competencies are desirable in the modern academic libraries for effective library service delivery for information professionals regardless of status or qualifications to thrive in the Digital Age. This study investigated digital literacy competence among library officers in university libraries in Ogun State, Nigeria. The findings indicated high possession of a basic computer and digital literacy skills among paraprofessionals. The finding shows a remarkable improvement over the earlier studies, which reported inadequate and low digital literacy levels. The State university was found to possess more digital skills than the federal. However, basic computer literacy and or technical skills possessed by library officers in the two universities are not adequate for the library service in the digital age.

RECOMMENDATIONS

Based on the findings, the study recommends the following:

- Digital literacy skills having been acknowledged as providing solutions to future library services and taking cognizance of its dynamic nature; there is a need for the paraprofessional staff to constantly upgrade their digital literacy skills in order to become highly competent in the use of the various technological facilities through regular training and retraining;
- Proficiency in digital literacy acquisition may be used as a scale for staff appraisal assessment
- Library management should support and encourage the training of staff at all levels through continuing education and a robust staff development capacity training program;
- Library stakeholders should allocate adequate funding to capacity building of staff in the ratio of 5:2 for librarians and library officers

REFERENCES

Adeyoyin, S. O. (2006). ICT literacy among the staff of West African university libraries: A comparative study of Anglophone and Francophone countries. *The Electronic Library,* 24 (5) 694–705.

Ademodi, D. T. and Adepoju, E. O. (2009). Computer skill among librarians in academic libraries in Ondo and Ekiti State, Nigeria. *Library Philosophy and Practice* 1-7.

Adomi, E. E and Annie, O. S. (2006). An assessment of computer literacy skills of professionals in Nigerian university libraries. *Library Hi Tech News*, 13 (2) 10-14

Ajidahun, C. O. (2007). The training, development and education of library manpower in information technology in University libraries in Nigeria. *World Libraries*, 17 (1)

Anyaoku, E. N. (2012). Computer skills set of librarians in Nigeria: confronting the stereotype. *Annals of Library and Information Studies* 59, 128-134.

Anad, Y. K. (2014). Competencies for library and information science professionals in academic libraries. *India Journal of Library and Information Technology*. 4 (2), 1-4.

Anyim, W. O. (2018). Assessment of ICT Literacy Skills of Digital Library Users and Staffs Salem University Lokoja, Kogi. *Library Philosophy and Practice*

Baro, E. E. and Eze, M. O. (2015) College of Education in Nigeria: an investigation into self perception of ICT related information literacy skills. *Communication in Information Literacy* 9 (2), 1-12

Bansode, S. Y and Viswe, R. R. (2017). ICT literacy among library professionals working in the University libraries in Maharashtra, India: A study. *DESIDOC Journal of Library & Information Technology* 37 (5), 353-359.

Bitri, E. (2016). 21st Century library and information professionals. Proceedings from collections to connections: turning library "inside out" The 21st International BOBCATSSS Conference held in Ankara, Turkey.

Buckingham, D. (2006). Defining digital literacy: what people need to know about digital media? *Digital Kompetanse*. 4 (1), 263-276

Emiri, O. T. (2015). Digital literacy skills among librarians in university libraries in the 21st Century in Edo and Delta states, Nigeria. *International Journal of Science and Technology Research,* 4 (8), 153-159.

Inyang, E. and Mngutayo, J. (2018). Required skills and competences of Librarians for effective software application and use in contemporary Libraries in Nigeria. *Library Philosophy and Practice* 1-17.

Mathew, S. K. and Baby, M. D. (2012). Developing technology skills for academic librarians: A study based on the universities in Kerela, India. *Library Philosophy and Practice*: Retrieved from http://digitalcommons.unl.edu/libphilprac/702/

Nwalo, K. I. N. (2009). The changing role of paraprofessional library staff in the ICTs age. Proceedings of selected papers of the Cataloguing, Classification and Indexing Section of the Nigerian Library Association. 106-111.

OECD (2016). Policy brief on the future work: skills for a digital world. Retrieved from www.oecd.org/elsemp/Skills-for-a-Digital: World.pdf

Okeji, C. C., Nwankwo, N. G., Anene, I. A. and Olorunfemi, E. A. (2020). Assessment of digital literacy skills of 21st Century librarians in private university libraries in Anambra State. *International Journal of Library & Information Science Studies.* 6. (4), 34-47.

Osinulu, L. F. (2018). Digital and media literacy skills as predictors of knowledge and use of social media among registry staff of Federal Universities in South-West, Nigeria. Unpublished PhD Thesis.

Oyedokun, T. T., Oyewumi, F. A., Akanbi, M., Lawal P and Laaro, D. M. (2018). Assessment of ICT competencies of library staff in selected universities in Kwara State, Nigeria. *Library Philosophy and Practice.* Retrieved from https://digitalcommons.unl.edu/libphilprac/1797

Safahief, T. and Asemi, A. (2008). Computer literacy skill of librarians: A case study of Isfahan University Libraries, Iran. In: A. Abdullah eds. Towards an information literate society: Proceedings of the International Conference on Libraries, Information and Society, 18 19 November 2008 at Petaling Jaya, Malaysia.

Sani, O. J and Musa, A. (2019). Influence of ICT competencies on job performance among library personnel in tertiary institutions in Lokoja, Kogi State, Nigeria. *Samaru Journal of Library and Information Science,* Vol. 20, no. 1: 1-15.

Ugwuanyi, C. F and Ejikeme, A. N. (2011). Awareness of the expected skills sets and development required by the new, era librarians in academic libraries in South Eastern Nigeria. In Aina, L. O. eds. Strategies for National Development. Nigerian Library Association; University Press: 102-117.

Warsheaer, M. and Matuchniak, T. (2010). New technology and digital worlds: analyzing evidence of equity in access, use and outcomes. *Review of Research Education* 34:179 225

Zhu, L. (2012). The role of paraprofessional in technical services in academic libraries. *Library Resources & Technical Services* 56, 3: 1-17.