

ACQUISITION AND APPLICATION OF CONVENTIONAL AND ONLINE CATALOGING COMPETENCIES BY LIBRARIANS IN UNIVERSITY LIBRARIES IN SOUTHERN NIGERIA

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Abstract

Purpose: The study investigated the acquisition and application of conventional and online complementary cataloging competencies by librarians in Federal university libraries in southern Nigeria.

Methodology/Approach: The study adopted a descriptive survey research design. The population of the study comprised 168 librarians drawn from six university libraries. The universities used for the study were: University of Ife, University of Ibadan, University of Benin, University of Lagos, University of Port Harcourt and University of Nigeria. The instrument used for data collection was a questionnaire and was face validated by three professionals. The Cronbach Alpha reliability test procedure was used to determine the degree of internal consistency of the questionnaire items. The result of the trial test showed that the overall internal consistency of the questionnaire was 0.93. Data obtained in the work were presented in tables and analyzed using percentages, means and Standard deviations.

Findings: None of the two cataloguing methods should suffer neglect; policies should be made to ensure that both cataloguing methods complement each other; Competency of Cataloguers should be enhanced; appropriate cataloguing tools should be provided and poor ICT skills amongst cataloguers should be eliminated.

Originality/Value: Based on the findings of this study, the study recommends that libraries should make the complementary acquisition and application of conventional and online cataloguing competencies easy for cataloguers.

Keywords: Complementary Acquisition, Application, Online Cataloging, Conventional Cataloging, University Libraries

Paper Type: Empirical

Introduction

University libraries all over the world are a hub of knowledge and information services in their institutions and are usually established along with and as an integral part of their mother institutions (Abubakar, 2011, Mirza & Mohmood, 2009). University libraries are essential to the university's mission of encouraging research and study (Mole, 2010). University libraries are academic libraries established with information resources fundamentally to satisfy the teaching, learning and research desires of their student population, staff and visitors. Consequently, they frequently strive to acquire and store printed and non-printed types of materials (Hardesty, 1986). Cataloguing is the method of identifying each of a library's books and information materials (Ekere & Mole, 2014). They stated that it is the process of defining a collection item in order to determine its bibliographic attributes.

Cataloguing is the correct and accurate description of a document's physical properties, whether print, non-print, audio-visual or both (Adeyemi, 2002).

There are primarily two methods or types of cataloguing: traditional and online. The common method of Cataloguing records is through traditional Cataloguing. It relates to the descriptive and subject-matter of information materials. It requires the mastery of a set of rules such as AACR2 or other cataloguing rules and the use of Cataloguing tools in Cataloguing information materials while online Cataloguing deals with the search and location of Cataloguing data through online Cataloguing databases, giving the cataloger unlimited access

to online bibliographic data (Ruteyan & Akporhonor, 2007). In terms of competence, conventional cataloguing may require skills in descriptive Cataloguing, subject cataloguing, critical and analytical thinking, and information evaluation, while online cataloguing requires competences in data mining, computer and web navigation, combined with system appreciation skills. The emergence of online cataloguing has resulted in the transformation of traditional library operations into modern working methods; for conventional Cataloguing, literature is searched and important questions are asked; for online Cataloguing, it is data mining. Online Cataloguing makes metadata easy to find.

The Cataloguing task is typically performed by professional librarians called catalogers. Catalogers in university libraries are academic librarians; they are in charge of identifying information resources for the Library catalogue. By deciding the key entry, adding articles, topic headings and call numbers, they arrange library materials for easy storage and retrieval (Ode & Omakaro, 2007). Accuracy and accuracy are commonly cited as the competencies needed by a successful cataloger. Competency is a synonym for ability on the word. As a result of experience, formal training or practice, it means ability to perform a given job. It is the ability on a particular job to combine and apply acquired expertise. This involves applying high levels of knowledge, standards and capacity to the work being assigned (Ofodu, 2015).

Complementary acquisition and application of conventional and online Cataloguing skills among catalogers pertains to the cataloger's ability to acquire and use corresponding conventional and online Cataloguing skills for a dynamic and efficient library Cataloguing practice. (Adeleke & Olorunsola, 2006) noted that traditional and online Cataloguing competencies complement one another in developing countries of the world. Catalogers in these countries need to have dynamic competencies in the processing of library materials with conventional as well as online Cataloguing techniques complementing each other. However as (Snyder, 2004) The reality is that there is a considerable gap between these

countries and developing countries, such as Nigeria. Nevertheless, he noted that with the advent of electronic library-based services, even in developed countries, there is a decline in conventional librarian Cataloguing competencies. Throughout Nigeria, university libraries practice conventional Cataloguing right from the very beginning. In recent times, online Cataloguing is the preferred method of Cataloguing (Adeleke & Olorunsola, 2009). This is because it is considered to be faster and less tedious than conventional Cataloguing in Cataloguing of information materials. This may set a dangerous precedence as catalogers may no longer strive to develop their conventional Cataloguing competencies. This is very fundamental because conventional Cataloguing plays a key role in confirming the correctness of the metadata derived from these online Cataloguing databases; besides, not all information materials being cataloged in the library are in these online Cataloguing databases. Which still ends up in the use of conventional Cataloguing methods to catalog certain materials not found in the online Cataloguing databases. Catalogers may also turn to conventional Cataloguing if there is a shortage of power supply (usually encountered in Nigeria) to operate the computer systems used in federal university libraries for online Cataloguing.

Southern Nigeria boasts of eighteen (18) federal universities. Most of these universities have conventional and online Cataloguing standard functional Cataloguing sections. These university libraries use the Library of Congress Classification Scheme, due to the suitability of the scheme to organize large library collections. The Library of Congress Subject Heading List and the Cutter Sanborn Three Figure Author Table are other resources used in Cataloguing. For this study six Nigerian federal universities were chosen. They include Obafemi Awolowo University, Ile Ife, University of Benin, University of Ibadan, University of Lagos, Akoka, University of Nigeria, Nsukka and University of Port Harcourt. These six university libraries are the top universities in Nigeria. They are owned and funded by the federal government of Nigeria. The six federal universities were established between 1960 and 1975. They have very large volumes of collections. These collections include

monographs, periodicals, pamphlets, maps, rare books, government publications, journals, theses and dissertations (both physical and electronic), audio-visual materials covering various disciplines. Their institutional repositories are powered by D-space Institutional Repository Software. The collections include thousands of physical information materials and millions of domiciled e-resources in international databases. These online services are grouped into databases based on password, Internet protocol, and open access. These university libraries serve University staff, students, and visitors' teaching, learning, and research needs. They have both card catalogs and online public access catalogs (OPACs) by which users access the collections of libraries.

The OPAC is operated by a library management software (LMS), known as KOHA, in these university libraries. The university libraries have operational Cataloguing sections that conduct both conventional Cataloguing as well as online. Catalogers catalogue library collections in these university libraries for proper preservation of information resources and user-friendly retrieval. Considering the crucial role that catalogers play in Cataloguing the information resources of these university libraries for storage and easy access, this study is therefore undertaken to identify strategies for overcoming challenges associated with the acquisition and application of complementary Cataloguing competencies in university libraries in Nigeria.

Statement of the Problem

Catalogers need to concentrate on emerging techniques as well as the conventional Cataloguing method. These new techniques and techniques, however, can simultaneously affect either the catalogers' conventional Cataloguing skills, thereby affecting their work performance. This is sad because preference for one type of Cataloguing over another will influence the competencies of catalogers and their success on the other in the long run. It is of great concern that many catalogers in Nigerian university libraries now prefer online Cataloguing to conventional Cataloguing, which could in the long run lead them to lose critical Cataloguing skills due to online Cataloguing dependence.

Online Cataloguing was not specifically adopted to replace, but to supplement, conventional Cataloguing. The researcher is concerned about the inability of the catalogers to adopt online Cataloguing and acquire competencies as required by the dynamics of the profession in both conventional and online Cataloguing processes. The researcher also worries that catalogers appear to be losing focus and competence in conventional Cataloguing with the advent of online Cataloguing. It has had a negative impact on the university library's cardinal mandate in particular and on the university at large. Hence, the need to determine strategies for overcoming challenges associated with acquisition and application of conventional and online complementary Cataloguing competencies in Nigerian university libraries. This is the problem and focus of this study.

Research Questions

The following research questions were formulated to guide the study;

1. What is the state of application of conventional and online Cataloguing in University libraries in Nigeria?
2. What methods are required for acquisition and application of conventional and online complementary Cataloguing competencies in the libraries?
3. What are the methods employed for acquisition and application of conventional and online complementary Cataloguing competencies in Nigerian university libraries?
4. What problems affect the acquisition and application of conventional and online complementary Cataloguing competencies amongst catalogers in the libraries?
5. What strategies can be employed for overcoming challenges associated with acquisition and application of conventional and online complementary Cataloguing in Nigerian university libraries?

Literature Review

Cataloguing is an essential process in any library or information Centre in order to provide information access to all learning resources for library patrons (Sirsi corporation dba sirsidynix,

2012). Conventional Cataloguing is the system of organizing information materials following the Anglo American Cataloguing Rules (AACR)(Blake, 2000). Conventional Cataloguing is captured by (Manitoba Education and training, 1997) as original Cataloguing which refers to Cataloguing an item by examining certain parts of it to obtain information needed to describe it. Manitoba Education and Training further argued that original Cataloguing allows for on-site, immediate, and locally applied Cataloguing.

Conventional Cataloguing processes causes certain inconveniences including time consuming, duplication of Cataloguing processes, and inconsistency in subject choice and class mark. Online Cataloguing is referred to as the use of online Cataloguing databases to catalog information materials(Kao, 2003). According to Chandrakar & Arora (2010), it is the process of Cataloguing information materials using bibliographic data derived online.

Online Cataloguing, according to Gerolimos (2009), is copy Cataloguing. It is the adaptation of a pre-existing bibliographic records e.g. Online Computer Library Center (OCLC), Library of Congress (LC), Research Libraries Information Network (RLIN), or some other bibliographic database to fit the characteristics of the item in hand with little modification to reflect on the local Cataloguing agreement of the library. Catalogers can copy the bibliographic information of the work with a change in the Cutter number. The author / subject / title number of the main heading must be changed, using the Three Figure Author Cutter Sanborn Table of the library. Previously, the lack of access to current Cataloguing and classification tools in developing countries was a major problem hindering conventional Cataloguing(Reitz, 2004). Beyond this was the inability of catalogers to catalog efficiently and accurately. This was due to the use of outdated tools in Cataloguing. New fields of knowledge are not covered well in the outdated Cataloguing tools; thereby bringing inconsistency in most of Nigerian academic library catalogs. Ogunrombi (2010)Stated that online Cataloguing involves a Machine-Readable Record (MARC) from other libraries in a network. However, the arrival of the online Cataloguing has actually revolutionized the accuracy, stability

and up-to-datedness of cataloged materials. Librarians today can rely on computer networks to perform Cataloguing and classification work (McCallum, 2004). Online Cataloguing has brought a huge relief to catalogers in the Cataloguing of information resources in this new information age (Saye & Bohanman, 2000). The Importance of online Cataloguing are as follows: it saves the time of the cataloger, maintains the accuracy of the work, maintains consistency, develops catalogers electronically, reduces duplication of efforts, bibliographic details of cataloged resources of other libraries can be fully copied, collection of a library can be compared with other libraries collections, knowledge creation is enhanced, it increases Cataloguing efficiency of catalogers, it also improves speed and ease of accessibility of cataloged materials.

Ivey (2009)Listed the following as barriers to online Cataloguing; lack of funds, lack of competencies and training lack of ICT and other infrastructural facilities like steady power supply, Internet facilities and even adequate number of computers to support online Cataloguing and inadequate numbers of professionals, most libraries in Nigeria do not have enough professionals to man their online Cataloguing and classification. Other factors as stated by Manaf (2009) include poor network; lack of power supply; limited number of good computers; unqualified online catalogers; lack of training on new development; poor incentive to the catalogers.

Catalogers, according to Nwosu & Nwokocha (2015) can be said to be the first service professionals whose identity, functions, and requirements are well established, defined and understood. As stated by Ocholla (2009)catalogers have a key body of professional knowledge and a set of professional competencies which they deploy in the performance of their professional chores. Cataloguing librarians are professionals that decide where in the library an item should be shelved using classification scheme; they also create access to information resources for users. They are regarded as the most vital part of an effective and efficient library and information services.

Myung (2013) Defined Cataloguing librarians; as librarians who has an MLIS or MLS degree and catalogs without managerial or supervising duties. His/her primary responsibilities are to prepare bibliographic records to represent items acquired by the library and to provide efficient access and retrieval for library users. A good cataloger, according to Myung should have the qualities of: competence, accuracy, efficiency, consistency, adaptability, judgment, problem solving, commitment, research ability, and self-discipline.

Nwosu & Nwokocha (2015) Maintained that catalogers are moving into new roles as they provide enhanced access to information resources not only books, but also CD-ROMs, computer discs, and multi-format items and add the records they create to a shared international database. They glossed around the concept of dynamics of competencies in the contemporary period; they however failed to address the issue of retaining traditional competency when acquiring online Cataloguing competencies.

On a similar note, Park and Lu as cited in Nwosu (2014) noted that traditional Cataloguing tasks and practices are still highly relevant and are being integrated with the activities of metadata creation and electronic resources management that characterize the key roles that metadata professionals play in the digital environment. Nwosu, after evaluating the threats on traditional Cataloguing competencies emphasized that people are questioning traditional practices, the expense on Cataloguing operations, and the usefulness of library catalogers themselves. Catalogers all over the world are required to possess competencies for the purpose of being efficient in the Cataloguing process. Every cataloger should possess the competency on how to use the Cataloguing rules for uniformity.

Research Methodology

The design of this study is descriptive survey. The area of study is Southern Nigeria. Southern Nigeria is one of the two major blocks of the country and made up of three geo political zones, namely: South East, South South and South West. There are 17 states in Southern Nigeria. Each of these geo political zones has six

states except the South East which has five. There are eighteen federal universities spread across the three geo-political zones (National Universities Commission, 2009).

The population of this study comprised librarians (catalogers) in eighteen (18) federal universities who were involved in Cataloguing of information materials in the university libraries in Southern Nigeria. The population of librarians (catalogers) who cataloged information materials in the eighteen federal universities is two hundred and ninety three (293). (LRCN, 2014)

The sample for this study is one hundred and sixty-eight (168). This was drawn from six university libraries located in the South East, South West and South South geopolitical zones of Nigeria. The universities for this study were selected based on purposive sampling technique. Therefore, a number of criteria were set as standard for selection. These include: existence of a standard and functional Cataloguing section in the university libraries; application of conventional Cataloguing the university libraries must be; application of online Cataloguing in the university libraries, and duration of application for at least five (5) years.

In using the above criteria for selection of the universities for this study, six (6) federal universities met these standards thus they were selected for this study. The total population of catalogers in the six selected universities is one hundred and sixty-eight (168). Since the population of this study is not too large, there was no need for further sampling.

A Questionnaire was used to elicit responses from the respondents. For decision taking, any mean rating of 2.50 and above was considered positive or accepted, while any mean rating below 2.50 was considered negative and rejected.

Results

The presentation of result is guided by the five research questions. The results of the study were presented in tables according to individual research questions.

Research Question 1: What is the state of application of conventional and online Cataloguing in university libraries in Nigeria?

Table 1: Percentage Response of the Respondents on the State of Application of Conventional and Online Cataloging in University Libraries in Nigeria (N=166)

	OAU n=28		UI n=29		UNIBEN n=26		UNILAG n=28		UNIPORT n=28		UNN n=27		OVERALL n=166	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Conventional cataloging														
Conventional cataloging was recently introduced in my Library	0%	100%	5.5%	94.5%	0%	100%	5.8%	94.2%	0%	100%	0%	100%	1.8%	98.2%
Conventional cataloging is used to catalogue Books in my library	0%	100%	77.7%	22.3%	93.8%	6.2%	82.3%	17.7%	94.2%	5.8%	0%	100%	91.3%	8.7%
Conventional cataloging is no longer applied in my library	5.8%	94.2%	22.3%	77.7%	6.2%	93.8%	11.7%	88.3%	5.8%	94.2%	6.2%	93.8%	9.6%	90.4%
Conventional cataloging has never been applied in my library	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%
My library employs conventional cataloging on all types of materials	0%	100%	16.6%	83.4%	0%	100%	35.2%	64.8%	0%	100%	0%	100%	8.6%	91.4%
My library employs conventional cataloging methods on certain types of material only	94.2%	5.8%	77.7%	22.3%	0%	100%	82.3%	17.7%	94.2%	5.8%	93.7%	6.3%	90.3%	9.7%
Online cataloging														
Online cataloging was recently introduced in my Library	5.8%	94.2%	38.8%	61.2%	6.2%	93.8%	58.8%	41.2%	5.8%	94.2%	0%	100%	19.3%	80.7%
Online cataloging is used to catalog Books in my library	0%	100%	94.4%	5.6%	0%	100%	94.2%	5.8%	0%	100%	0%	100%	98.1%	1.9%
Online cataloging is no longer applied in my library	0%	100%	5.6%	94.4%	0%	100%	5.8%	94.2%	0%	100%	0%	100%	1.9%	98.1%
Online cataloging has never been applied in my library	0%	100%	5.6%	94.4%	0%	100%	5.8%	94.2%	0%	100%	0%	100%	1.9%	98.1%
My library employs online cataloging on all types of materials	0%	100%	27.7%	72.3%	0%	100%	35.2%	64.8%	0%	100%	0%	100%	10.4%	89.6%
My library employs online cataloging methods on certain types of material only	64.4%	35.6%	83.3%	16.7%	62.5%	37.5%	94.2%	5.8%	64.7%	35.3%	68.7%	31.3%	72.9%	27.1%

Table 1 shows the state of application of conventional and online Cataloguing in university libraries in Nigeria. The result shows that conventional Cataloguing was applied in Cataloguing books in the libraries; and on certain types of materials. The libraries also employed online Cataloguing on certain types of materials. From the above findings, the study extrapolates that the surveyed libraries practiced both conventional and online Cataloguing. It was evident from the results that conventional Cataloguing and online Cataloguing were not recently introduced in the libraries. Conventional and online Cataloguing were not used to catalog all categories of books in the library; nevertheless, both Cataloguing methods are crucial for enhancing access to library resources. The finding is in agreement with the assertion

that libraries have merged conventional and modern methods of work to provide enhanced access to information resources not only books, but also CD-ROMs, computer discs, and multi-format materials (Nwosu & Nwokocha, 2015). Therefore, conventional and online Cataloguing were used to catalog information materials in the studied libraries. This reveals that both Cataloguing practices complement each other.

The two Cataloguing practices are important because they complement each other and this enables libraries to have dual Cataloguing options to ensure that they would not fail in Cataloguing information materials no matter the situation. Conventional Cataloguing serves as a Cataloguing practice which catalogers can fall back on if there is power or system failure. By

implication, online Cataloguing serves as a fast Cataloguing option that enables libraries to catalog the enormous amount of information materials that inundate the library.

Research Question 2: What methods are required for complementary acquisition and application of conventional and online Cataloguing competencies in the libraries?

Table 2: Mean Response of the Respondents on the Methods Required for Complementary Acquisition and Application of Conventional and Online Cataloguing in the Libraries (N=166)

Items	OAU n=28		UI n=29		UNIBEN n=26		UNILAG n=28		UNIPORT n=28		UNN n=27		OVERALL n=166		Rank	Decision
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD		
Self-training and development	3.79	0.42	3.58	0.73	3.92	0.27	3.29	0.81	3.71	0.53	3.74	0.53	3.67	0.61	1 st	VHR
Mentoring by colleagues in the profession	3.79	0.42	3.55	0.74	3.92	0.27	3.21	0.79	3.75	0.44	3.74	0.53	3.66	0.60	2 nd	VHR
Linkage programmes in other libraries	3.75	0.44	3.62	0.56	3.92	0.27	3.21	0.63	3.71	0.46	3.70	0.54	3.65	0.53	3 rd	VHR
Correspondence programmes	3.75	0.44	3.51	0.74	3.92	0.27	3.04	0.79	3.71	0.46	3.67	0.62	3.60	0.64	4 th	VHR
Seminars on cataloging and classification	3.42	0.50	3.48	0.51	3.46	0.51	3.50	0.51	3.39	0.50	3.44	0.51	3.45	0.50	5 th	VHR
Formal education in library schools	3.32	0.48	3.34	0.48	3.15	0.37	3.64	0.49	3.21	0.42	3.33	0.48	3.34	0.47	6 th	HR
On-the job training	3.32	0.48	3.38	0.49	3.15	0.37	3.54	0.64	3.25	0.44	3.26	0.53	3.31	0.51	7 th	HR
Workshops on cataloging and classification and similar areas	3.32	0.48	3.34	0.48	3.15	0.37	3.46	0.51	3.21	0.42	3.30	0.47	3.30	0.46	8 th	HR
Conferences	3.25	0.44	3.38	0.49	3.07	0.27	3.43	0.50	3.25	0.44	3.19	0.39	3.27	0.44	9 th	HR
Training in informal cataloging classes by private organizations	3.32	0.48	3.07	0.65	3.15	0.37	3.04	0.64	3.14	0.45	3.22	0.42	3.15	0.52	10 th	HR
Total	3.50	0.46	3.43	0.59	3.48	0.33	3.34	0.63	3.43	0.46	3.46	0.50	3.44	0.53		

Where VHR = Very Highly Required, HR = Highly Required, LR = Less Required, NR = Not Required (Criterion Mean = 2.50)

The respondents' response as presented on Table 2 indicate that, self-training, mentoring, linkage programmes in other libraries, and correspondence programmes had the highest total mean ratings of 3.67, 3.66, 3.65 and 3.60 for methods required for complementary acquisition and application of conventional and online Cataloguing competency in the libraries. On-the job training, workshops on Cataloguing and classification and similar areas, conferences, training in informal Cataloguing classes by private organizations recorded lower mean ratings of 3.31, 3.30, 3.27 and 3.15.

Based on the results in Table 2, it is pertinent to note that the mean ratings recorded are higher than the criterion mean of 2.50. Given the results, the study adopted all the listed competences on the table as methods required for complementary acquisition and application

of conventional and online Cataloguing in the libraries under study.

The results of the study revealed that respondents agreed that self-training and development and mentoring by colleagues were methods required for complementary acquisition and application of conventional and online Cataloguing in the libraries. This is however, in contrast with the views of Rowley & Farrow (2000). Self-training and mentoring by colleagues in the profession is very essential for complementary acquisition and application of conventional and online Cataloguing competencies amongst catalogers in the libraries and should not be overlooked.

Research Question 3: What are the methods employed in the acquisition and application of conventional and online Cataloguing competencies amongst catalogers in Nigerian university libraries?

Table 3: Mean Response of the Respondents on the Methods Employed in Acquiring Conventional and Online Cataloging in the Libraries (N=166)

Items	OAU n=28		UI n=29		UNIBEN n=26		UNILAG n=28		UNIPORT n=28		UNN n=27		OVERALL n=166		Rank	Decision
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD		
Mentoring by colleagues in the profession	3.57	0.50	3.69	0.60	3.92	0.27	3.61	0.50	3.43	0.69	3.44	0.58	3.61	0.56	1 st	VHR
Self-training and development using online resources	3.57	0.50	3.72	0.53	3.92	0.27	3.54	0.58	3.39	0.69	3.51	0.51	3.61	0.55	1 st	VHR
Self-training and development using physical cataloging resources	3.50	0.51	3.79	0.41	3.92	0.27	3.50	0.58	3.54	0.58	3.44	0.58	3.61	0.52	1 st	VHR
Formal education in library schools	3.54	0.51	3.34	0.48	3.77	0.42	3.29	0.53	3.68	0.55	3.18	0.40	3.57	0.52	2 nd	VHR
Correspondence programme	3.46	0.51	3.75	0.44	3.92	0.27	3.39	0.74	3.32	0.72	3.19	0.83	3.51	0.66	3 rd	VHR
Seminars on cataloguing and classification	3.43	0.50	3.44	0.51	3.46	0.51	3.36	0.56	3.54	0.64	3.44	0.58	3.45	0.55	4 th	VHR
On-the job training	3.54	0.51	3.31	0.47	3.15	0.37	3.32	0.47	3.64	0.49	3.67	0.48	3.44	0.50	5 th	HR
Workshops on cataloging and classification and similar areas	3.54	0.51	3.31	0.47	3.15	0.37	3.17	0.48	3.75	0.44	3.48	0.64	3.40	0.53	6 th	HR
Training in informal cataloging classes by private organizations	3.54	0.51	3.28	0.53	3.65	0.49	3.14	0.52	3.36	0.87	3.40	0.69	3.39	0.63	7 th	HR
Conferences on cataloging and classification	3.46	0.51	3.28	0.47	3.07	0.37	3.14	0.48	3.71	0.44	3.44	0.64	3.36	0.52	8 th	HR
Linkage programmes in other institutions	3.43	0.50	3.34	0.48	3.31	0.47	3.36	0.56	3.29	0.60	3.29	0.82	3.34	0.58	9 th	HR
Total	3.51	0.51	3.48	0.49	3.57	0.37	3.35	0.55	3.51	0.61	3.41	0.61	3.48	0.56		

Where VHE = Very Highly Employed, HE = Highly Employed, LE = Less Employed, NE = Not Employed (Criterion Mean = 2.50)

Table 4 captured the mean responses of catalogers in the six sampled universities: OAU, UI, UNIBEN, UNILAG, UNIPORT and UNN on methods employed for complementary acquisition and application of conventional and online Cataloguing competencies in the libraries. The respondents' response indicates that, mentoring by colleagues in the profession, self-training development using online resources, self-training using physical Cataloguing resources and formal training in library schools garnered mean responses of 3.61, 3.61, 3.61, and 3.57 respectively. The results on the table reveal that training in informal Cataloguing classes by private organizations and conferences generated mean ratings of 3.39, 3.36 and 3.34 respectively on methods required for complementary acquisition and application of

conventional and online Cataloguing competencies in the libraries.

The analysis of the results reveals the methods employed in the complementary acquisition and application of conventional and online Cataloguing competencies amongst catalogers in Nigerian university libraries. These methods are mentoring by colleagues in the profession, self-training using online resources, self-training using physical Cataloguing resources and formal education in library schools. This statement contradicts the assertion made by Hill (2014) that catalogers are unaware of a whole lot of competencies waiting to be obtained. The knowledge of the methods means that the catalogers understand how they could enhance the complementary acquisition and application of conventional and online Cataloguing competence in the libraries. However, libraries

having newly graduated degree holding librarians may lack the competent professional staff that holds the key to managing it successfully.

Research Question 4: What problems affect the acquisition and application of conventional and online complementary Cataloguing competencies amongst catalogers in the libraries?

Table 4: Mean response of the Respondents on Problems Affecting Acquisition and Application of Conventional and Online Cataloging in the Libraries (N=166)

Items	OAU n=28		UI n=29		UNIBEN n=26		UNILAG n=28		UNIPORT n=28		UNN n=27		OVERALL n=166		Rank	Decision
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD		
Inappropriate cataloging tools	3.53	0.51	3.48	0.63	3.69	0.62	3.61	0.57	3.64	0.62	3.67	0.48	3.60	0.57	1 st	VHR
Poor ICT skills	3.46	0.51	3.34	0.55	3.73	0.45	3.50	0.51	3.61	0.63	3.48	0.51	3.52	0.55	2 nd	VHR
Poor interest in cataloging	3.50	0.51	3.34	0.72	3.65	0.49	3.54	0.51	3.61	0.63	3.51	0.51	3.52	0.57	2 nd	VHR
Conservative leadership in libraries	3.32	0.55	3.31	0.66	3.54	0.58	3.36	0.62	3.50	0.64	3.26	0.66	3.38	0.62	3 rd	VHR
Poor foundation in cataloging	3.43	0.50	3.38	0.68	3.15	0.37	3.21	0.42	3.29	0.53	3.37	0.56	3.30	0.52	4 th	HR
Inadequate cataloging tools	3.46	0.51	3.03	0.82	3.15	0.37	3.25	0.44	3.32	0.48	3.59	0.50	3.30	0.57	4 th	HR
Transition challenge/Phobia. e.g. Fear, Conservatism, Ageism	3.39	0.57	2.90	0.82	3.38	0.57	3.29	0.60	3.39	0.63	3.30	0.61	3.27	0.66	5 th	HR
Difficulty in acquiring new skills	3.43	0.50	3.07	0.80	3.15	0.37	3.14	0.45	3.21	0.63	3.33	0.73	3.22	0.61	6 th	HR
Problems of diversification amongst catalogers	3.46	0.51	3.21	0.77	3.15	0.36	3.14	0.52	3.25	0.51	3.04	0.81	3.21	0.61	7 th	HR
Total	3.44	0.52	3.23	0.72	3.40	0.46	3.34	0.52	3.42	0.59	3.39	0.60	3.37	0.59		

Where SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree (Criterion Mean = 2.50)

Table 4 captures the mean responses of catalogers in the six sampled universities; OAU, UI, UNIBEN, UNILAG, UNIPORT and UNN on problems affecting acquisition and application of conventional and online complementary Cataloguing competencies in the libraries. The respondents' responses reveal that inappropriate Cataloguing tools, poor ICT skills and poor interest in Cataloguing generated the highest mean ratings. Other problems such as transition challenge/phobia, e.g. fear, conservatism, ageism, difficulty in acquiring new skills, and problems of diversification amongst catalogers also generated higher mean ratings but not as high as the former.

The results revealed that inadequate Cataloguing tools, transition challenge, phobia,

e.g. conservatism and ageism, conservative leadership, poor ICT skills, poor interest in Cataloguing, were the major problems affecting complementary acquisition and application of conventional and online Cataloguing competencies amongst catalogers in the libraries. This is in agreement with the assertion that most Nigerian libraries do not have current Cataloguing tools (Oketunji, 2009; Hawkins, 2003). It is quite obvious that most libraries in Nigeria have inappropriate Cataloguing tools. Cataloguing information materials in the library with inappropriate Cataloguing tools is as good as not Cataloguing it at all (Wong, 2012).

Poor ICT skills amongst librarians will hurt their capacity to develop into full-fledged catalogers who possess complementary Cataloguing

competencies. Moreover, poor interest in Cataloguing is a very big problem as it will also make it difficult for catalogers to develop complementary competency in Cataloguing practice in the libraries. If catalogers have poor interest in Cataloguing then there must be a

reason making them to prefer a particular Cataloguing practice over another.

Research Question 5: What strategies can be used to overcome Challenges of acquisition and application of conventional and online Cataloguing competencies amongst catalogers in the libraries?

Table 5: Mean Response of the Respondents on Strategies for Enhancing the Complementary Acquisition and Application of Conventional and Online Cataloging in the Libraries (N=166)

Items	OAU n=28		UI n=29		UNIBEN n=26		UNILAG n=28		UNIPORT n=28		UNN n=27		OVERALL n=166		Rank	Decision
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD		
Making it easy for catalogers to acquire cataloguing competence	4.00	0.00	3.72	0.45	3.92	0.27	3.64	0.49	3.86	0.35	3.85	0.36	3.83	0.37	1 st	VA
Elimination of problems of diversification amongst catalogers	4.00	0.00	3.66	0.48	3.73	0.45	3.57	0.50	3.82	0.39	3.62	0.49	3.73	0.44	2 nd	VA
Libraries should provide relevant cataloging tools to encourage catalogers to practice conventional cataloging	3.89	0.31	3.62	0.49	3.88	0.33	3.64	0.49	3.61	0.57	3.78	0.42	3.73	0.46	2 nd	VA
Laying of adequate foundation in cataloging	4.00	0.00	3.76	0.44	3.26	0.45	3.71	0.46	3.79	0.42	3.78	0.42	3.72	0.45	3 rd	VA
Provision of adequate cataloging tools	3.96	0.19	3.72	0.45	3.31	0.47	3.64	0.49	3.75	0.44	3.67	0.48	3.68	0.47	4 th	VA
Provision of enabling environment for adequate ICT competence	3.89	0.31	3.66	0.48	3.23	0.43	3.79	0.42	3.60	0.50	3.81	0.40	3.67	0.47	5 th	VA
Catalogers should show adequate interest in cataloging	3.89	0.31	3.62	0.50	3.19	0.40	3.71	0.46	3.64	0.58	3.74	0.45	3.62	0.50	6 th	VA
Dynamic leadership in libraries	3.89	0.31	3.62	0.62	3.23	0.43	3.50	0.75	3.68	0.48	3.67	0.62	3.60	0.58	7 th	VA
Elimination of transition challenge/Phobia E.g. Fear, Conservatism, Ageism	3.96	0.19	3.55	0.74	3.23	0.43	3.46	0.79	3.68	0.61	3.56	0.64	3.58	0.63	8 th	VA
Total	3.94	0.18	3.66	0.52	3.44	0.41	3.63	0.54	3.71	0.48	3.72	0.48	3.68	0.49		

Where VA = Very Appropriate, A = Appropriate, FA = Fairly Appropriate, NA = Not Appropriate (Criterion Mean = 2.50)

Table 5 displays the mean response of the respondents based on the sampled six universities (OAU, UI, UNIBEN, UNILAG, UNIPORT and UNN) on strategies for enhancing complementary acquisition and application of conventional and online Cataloguing competencies in the libraries. The respondents' response revealed that, making it easy for catalogers to acquire Cataloguing skills and

elimination of problems of diversification amongst catalogers generated the highest mean ratings of 3.83, and 3.73 respectively.

In addition, other strategies for complementary acquisition and application of conventional and online Cataloguing competencies amongst catalogers which are dynamic leadership and elimination of transition challenge/phobia, e.g.

fear, conservatism and ageism generated lower mean ratings of 3.60 and 3.58 respectively.

The study identified some strategies for enhancing the complementary acquisition and application of conventional and online Cataloguing competencies amongst catalogers in Nigerian university libraries. There should be easy and affordable training, workshops and conferences on Cataloguing and classification in libraries for catalogers (Imeremba, 2011); elimination of problems posed by diversification amongst catalogers and the provision of relevant Cataloguing tools to encourage catalogers to practice conventional Cataloguing. This is in consonance with the assertion that current Cataloguing tools should be made available in libraries (Omeje, 2010) because of the importance of current Cataloguing tools in proper Cataloguing practice (Carvalho, 2005).

The provision of relevant Cataloguing tools will encourage catalogers to practice conventional Cataloguing effectively in the libraries. This is apparently why it is difficult for them to transit from one Cataloguing practice to the other. These bottlenecks should be eliminated so that the catalogers can achieve complementary acquisition and application of conventional and online Cataloguing competencies.

Conclusion

The support of teaching, learning and research in universities requires information materials. Access to these information materials is facilitated by the acquisition and application of conventional and online complementary Cataloguing competencies amongst catalogers in the university libraries. The major purpose of this study therefore was to determine strategies for overcoming challenges associated with acquisition and application of conventional and online complementary Cataloguing competencies in Nigerian university libraries. To overcome the challenges and enhance acquisition and application of conventional and online complementary Cataloguing amongst catalogers in university libraries, libraries should make it easy for catalogers to acquire Cataloguing competencies, eliminate the problem of diversification amongst catalogers and provide relevant Cataloguing tools to encourage catalogers to practice

complementary Cataloguing in the university libraries.

Recommendations

The following recommendations have been made based on the findings of the study:

1. Library management should ensure that none of the two Cataloguing practices suffers neglect as a result of preference for one in the library.
2. Policies should be made and implemented to make conventional and online Cataloguing effectively complement each other in the libraries.
3. The competency required by catalogers and the methods employed for complementary acquisition and application of conventional and online Cataloguing should be consolidated to boost the capacity of catalogers to practice conventional and online Cataloguing efficiently in the libraries.
4. Appropriate and relevant tools should be provided by university libraries to stimulate the interest of catalogers to practice conventional and online Cataloguing in the libraries without hindrance.
5. Poor ICT skills amongst catalogers should be eliminated by giving catalogers regular training on ICT capacity building of catalogers as this would ensure that the ICT competencies of the catalogers are constantly updated and developed so that they could handle any type of Cataloguing work before them.

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