

Influence of Catalogue Use Approaches and Skills on Users' Information Retrieval in University Libraries of North East Zone, Nigeria

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Abstract - This paper determined the influence of catalogue use approaches and skills on users' information retrieval in university libraries of North East Zone, Nigeria. The study determined how approaches of users and skills can influence users' information retrieval. The study adopted survey research design. A sample size of three hundred and seventy seven (377) out of twelve thousand, five hundred and fifty six (12,556) registered library users of the university libraries of North East Zone, Nigeria. A self designed questionnaire was used to fetch responses from the registered users of the libraries under study. Five (5) objectives were formulated to guide the the study. Four research questions were generated and answered, and two null hypotheses were tested. Frequency count and percentages were used to answer all the research questions and Chi square (X^2) was used to test the null hypotheses at 0.05 level of significance using the Statistical Package for Social Sciences (SPSS) version 20. The findings of the study revealed that, the level of information retrieval of the library users was to the low extent in university libraries of North East Zone Nigeria. Also, most of the respondents use subject approaches in university libraries of North East Zone Nigeria. The catalogue use skill of most of the respondents was fairly good. The study also revealed that there is significant influence of catalogue use approaches and skill on users' information retrieval in university libraries of North East Zone Nigeria. The following among others was recommended that the library management of universities in North East Zone, Nigeria should guide the users in handling the library catalogue so as to improve their information retrieval and also the library management should orient users to explore other approaches when using the library catalogue in university libraries of North East Zone, Nigeria.

Keywords: Influence, Catalogue Use approaches, Catalogue use skills, Information retrieval.

Introduction

In descriptive cataloguing, access point can generally be related to diverse approaches through which information resources or a document can be searched in catalogue by a user. Over the time cataloguers have realized that library users always use different approaches when searching the library catalogue and for this reason different access point have been created. Title catalogue is a catalogue consisting of title entry only. It is also a type of catalogue that has all its entry cards arranged in alphabetical order according to the title of the books. Amkpa, (2011) affirmed that the library catalogue provides sufficient guidance to users to enable them locates and retrieve items from the library, for which either the author, title or subject is known. It also shows at a glance what the library has by a given author, subject or on a given kind of literature.

The user that has an idea or know who holds a particular book or books comes to the library with that name or goes straight to the title catalogue and pull a tray in which the known title supposed to be filed, if the user confirms that the title's name is there in that particular tray or just copying the call number of that particular book and go straight to the shelve and there in the shelve, the book will be found if it is not borrowed, although if it is worn out or if it is stolen it will not be found on the shelf.

Library catalogue provides sufficient guidance to users to enable them locates and retrieve items from the library, for which either the author, title or subject is known. It also shows at a glance what the library has by a given author, subject or on a given kind of literature. However, effective information retrieval is greatly dependent on the users' ability to correctly use the retrieval tools like the library catalogue that is why Aguolu and Aguolu (2002) assert that, effective use of library materials and other facilities depends on the skillfulness or competence of the users and the level of assistance given them. Users' skills can be improved through diverse library instruction programmes which can include library orientation, library tours, lectures and classrooms teaching and or recognized library use courses. Such programmes assist in equipping students in the use of library, but the most effective one, as discovered by Dudley (1972) is the accredited course in library use like the ones in the Universities under study.

Jansen and Rieh (2010) assert that information retrieval (IR) is the activity of obtaining information resources relevant to an information need from a collection of information resources. Searches can be based on full-text or other content-based indexing. Ian, and Mounia (2003) stressed that the process of information retrieval is an inherently uncertain one. Searchers may not have a well-developed idea of what information they are searching for, so they may not be able to express their conceptual idea of what information they want into a suitable query and they may not have a good idea of what information is available for retrieval. Although users have difficulty expressing exactly the information that they require, they can recognize useful information when they see it. That is, although searchers may not be able to convert their need for information into a request, once the system has presented the user with an initial set of documents the user can indicate those documents that contain useful information. Retrieval is the process of matching a representation of an information need, usually a user supplied query to an indexed document representation.

Statement of the Problem

Library catalogues are generally designed to increase speedy search in the library, and to provide users with information resources needed. That means access to library collection will be very difficult without catalogues. Therefore if library's objectives must be accomplished, then all users must have access to library collection as fast as possible. However, personal observation shows that users do have difficulties in search for information resources needed. This study will therefore find out the catalogue use approach and users' information retrieval in Academic Libraries of Borno and Adamawa states, Nigeria.

Objectives of the Study

The objectives of the study were to determine the;

1. Level of users' information retrieval in academic libraries of North East, Nigeria.
2. Catalogue use approaches of users in university libraries of North East Zone, Nigeria;
3. Influence of catalogue use approaches on users' information retrieval in university libraries of North – East Zone, Nigeria and;
4. Influence of catalogue use skills on users' information retrieval in university libraries of North – East Zone, Nigeria.

Research Questions

The study was answered the following questions:

1. What is the level of users' information retrieval in university libraries of North East Zone, Nigeria?
2. What are the catalogue use approaches applied by users in university libraries of North East Zone, Nigeria?

Hypotheses

- H₀₁** There is no significant influence of catalogue use approach on users' information retrieval in university libraries of North East Zone, Nigeria.
- H₀₂** There is no significant influence of catalogue use skill on users' information retrieval in university libraries of North East Zone, Nigeria.

Literature Review

Influence of Catalogue Use Approach and Skills on Users' Information Retrieval

According to Nwalo, (2013) a building filled with books is not necessarily a library unless the books have been organized for access and made available for use. The cataloguing unit's functions are to organize the total library resources with suitable bibliographic controls to facilitate access to the resources by clientele. The traditional means for accomplishing this goal are descriptive cataloguing and subject classification. These assignments require effective records prepared with international standards and control vocabularies such as the A.A.C.R₂ and classification schemes.

Clark, (2000) affirmed that the library catalogue is an essential tool. It is an index or a key to the collection, containing an entry representing each item. Apotiade, (2002) asserts that the catalogue also tells where in the library a book is located. Hence, a catalogue is a list of things exhibited, articles for sale, school courses offered, etc., usually with descriptive comments and often illustration. A library catalogue serves the same purpose. It is a file of records for a library's collection (List 1998, cited by Ojedokun 2007). The functions of catalogue include giving a comprehensive record of materials owned by the library, listing what the library possesses by a certain author, on a given subject, and with a certain title, and enabling library materials to be located easily (Clark, 2000). The catalogue provides multiple access points to the library's collection (Osiole, 1987). That means the accessibility or successful retrieval of information resources is determined by the right approach to the right access point. Most of the users approach information sources not with names, which might have been responsible for their creation, but with a question that requires an answer, or a topic for study. Users seek documents or information on a particular subject. In order to make provision for this common approach, it is necessary to arrange documents on the shelf and entries in catalogs in such a way that items on a specific subject can be retrieved. In other words, it may be said that subject approach is very important in the access to and exploitation of documents in a library (Haider, 2015).

Amanda, (2012) explains that subject catalogue is any catalogue arranged by subject whether alphabetically or classified order which directs user to the document dealing with them. Amanda further opined that searching for materials on a particular subject can be more difficult than searching for materials through author or title. Before beginning a subject search, the user should first carefully considered various aspects of the information needed, identifying keywords on the subject and significant concepts associated with the given subject. These words and concepts can function as possible search terms. If searching under one term turns up too many possible works to realistically examine, a more specific term might be more useful. Likewise if a search term reveals too few terms, the user might achieve more productive results by searching under a more general subject, subject catalogue is been utilized by users in university libraries as a retrieval tool.

An author catalogue entry is arranged alphabetically by author's name, it usually include entries under editor, corporate body or any other word or name used as heading for many entries. American Psychological Association, (2016) defines author catalogue as a catalog whose entries are listed by author, editor, compiler, translator, or other party considered to have responsibility for the creation, or assembly of the work specified. Author catalogue is one of the important tools used by the library users in retrieving the needed materials in the library via a known author. Aguolu, (1980) opined that author catalogue is used mostly by students that know where the catalogue is. Users who know or have the idea of who hold a particular material with that name will go straight to the author catalogue cabinet and pull the tray which the known author supposed to be filed. If the user confirms that the author is there, the user will copy the class or call number written on the catalogue card and then go straight to the shelve and retrieve the material for reading.

If users must get what they need in the library, their approach to the catalogue is what must be done professionally or skillfully in information retrieval. Basil (2001) asserts that library users normally come to the Library and approach the catalogue with a specific author, title, or subject

in mind. Dorothy, (2001) opined that user approach to the catalogue is crucial because it gives the user a comprehensive view either of the entire book stock or a section of it, also to make it possible for a user to find a particular book or to select one which will best serve his purpose. The study conducted by Umar, Abareh and Basaka (2017) on Awareness and Utilization of Library Public Access Catalogue by Undergraduate Students of Abubakar Tafawa Balewa University (ATBU) Bauchi revealed that the information contained in the catalogue cards provides many access points needed to assist the patron seeking for information in the library. Users search a library catalogue principally to locate books and other materials available in a library. Unagha (2010) sees library public catalogue as an access point without which retrieval may be hampered and jeopardized. Users looking for a wide range of literature on a particular subject can search through the library catalogue. Library catalogue card indicates the subject or theme of the work; it identifies the location of the document on the shelves or stack. The benefits of catalogue are to facilitate the location of a particular publication and to relate and display together the editions which the library has of a given work and the works which it has of a given author. When library materials are catalogued, access is provided for the library patrons on a given topic, by a particular author, or in a particular format, that the library possesses. The better the use of library public catalogue, the more use the library collections, and the more satisfied the patron is in his or her search for information in the library.

The relationship between the library instruction programme and catalogue use can be seen from the important role of the library instruction programme component which emphasize catalogue use in its course content. This is to enable the students acquire skill or competence in using the catalogue as locating tool or device for the library collections. The success or failure of students' ability to locate resources in the library depends on the skill acquired through the library instruction programme.

Egberongbe (2000) noted that despite library instruction course taught to students, most of them continue to experience difficulties in using the library catalogue and other retrieval tools for retrieving relevant information. Boayke (1999) noted that a user is handicapped in the use of the library if he/she lacks skills to use the library catalogue. The studies of Ojoade and Jagboro (2000) revealed that users exhibit patterns of library catalogue usage, that education, experience and sophistication of library users determine the pattern or level of library catalogue use. However, students' efforts to complement their work with electronic resources may be limited due to lack of skills. Therefore knowledge of skills is necessary to selectively retrieve accurate, relevant and up-to-date information stored in documents instead of all the information that may not be relevant for their school work. Skills acquisition is in fact, very crucial to the use of library catalogue because information in the library can only be accessed if students possess the skill to retrieve the exact information needed for learning and research.

Methodology

Survey research design was found suitable and adopted for this study because it is concerned with testing people's feelings, behaviour, opinion, belief, attitude and or ideas. The target population for the study was 12,556 registered users of four University libraries under study. The universities are Gombe State University; Modibbo Adama University of Technology, Yola and University of Maiduguri all in North East Zone, Nigeria.

The researcher drew a sample size of three hundred and seventy seven (377) registered library users of the three university libraries under study. The sample (377) was base on Yamane (1967) formula for determining sample size for research activities. The sample size was found suitable due to Nwana’s (2005) recommendation that a researcher can study only a sample of population due to any of the following reasons:

- When the entire size of the population is large.
- When the time available for the project is limited.
- When the resources (human and material) available for the project are inadequate.

Data was collected from the respondents through the use of a self designed questionnaire administered to the three hundred and seventy seven (377) respondents. Descriptive statistics of frequency counts and percentages was used in analyzing the data to answer the research questions; results were presented in tables. Inferential Statistics of Chi-Square (X^2) was used to test the two (2) null hypotheses at 0.05 level of significance using the Statistical Packages for Social Sciences (SPSS) version twenty 20.

Data Analysis, Results and Discussion

Response Rate

Out of the 377 questionnaires distributed to the respondents in the four academic libraries under study, 347 (92%) copies were duly completed, returned and found valid for the analysis. In order to determine the influence of catalogue use approach and skill on users’ information retrieval in academic libraries under study, the results were presented in the tables below:

Table 1: Level of Users’ Information Retrieval in University Libraries of North East Zone, Nigeria

S/N	Statements	N	V.H.E	H.E	T.H.E	L.E	V.L.E	T.L.E
1.	To what extent do you access information in the library?	347	39 (11.2%)	52 (15.0%)	91 (26.2%)	218 (62.8%)	38 (11.0%)	256 (73.8%)
2.	To what extent do the retrieval tools aid your information searching?		6 (1.7%)	107 (30.8%)	113 (32.5%)	222 (64.0%)	12 (3.5%)	234 (67.5%)
3.	To what extent do you effectively search for and retrieve information in the library?		108 (31.1%)	10 (2.9%)	118 (34.0%)	19 (5.8%)	210 (60.5%)	229 (66.0%)
4.	To what extent do you get information resources that can meet your need in the library?		37 (10.7%)	77 (22.2%)	114 (32.9%)	157 (45.2%)	76 (21.9%)	233 (67.1%)
5.	To what extent do you locate information resources that meet your need in the library?		26 (7.5%)	24 (6.9%)	50 (14.4%)	92 (26.5%)	205 (59.1%)	297 (85.4%)
	Gross Total	347	216 (62.2%)	270 (77.8%)	486 (144%)	708 (204%)	541 (155%)	1249 (360%)
	Average	347	43 (12.4%)	54 (15.6%)	97 (28.0%)	142 (40.8%)	108 (31.1%)	250 (72.0%)

Key: - V.H.E = Very High Extent, H.E = High Extent, L.E = Low Extent, V.L.E = Very Low Extent, T.H.E = Total High Extent, T.L.E = Total Low Extent and N = Total Population

Table 1 indicates the level of users' information retrieval with 43 (12.4%) respondents who indicated that their level of information retrieval was to the very high extent, 54(15.6%) respondents indicated that their level of information retrieval was to the high extent, 142(40.8%) respondents indicated that their level of information retrieval was to the low extent and 108(31.1%) respondents indicated that their level of information retrieval was to the very low extent.

The result on the level of users' information retrieval revealed that majority of the respondents that is, 250 (72.0%) have low level of information retrieval and only 97 (28.0%) were effectively retrieving information to a very high extent in the university libraries in the North East Zone, Nigeria. This implies that the level of information retrieval of the respondents was to the low extent.

Table 2: Catalogue Use Approaches

S/No.	Catalogue Use Approaches	Frequency	Percentage
1.	Author Approach	40	11.5
2.	Title Approach	21	6.1
3.	Subject Approach	280	80.7
4.	Added Entry Approach	6	1.7
	Total	347	100

Table 2 above shows the analysis on catalogue use approaches of the users in the university libraries under study, it revealed that 40(11.5%) of the respondent use author approach, 21(6.1%) use title approach, 280(80.7%) use subject approach and 6(1.7%) indicated that they use added entry approach. The analysis indicated that most of the respondents that is, 280(80.7%) use subject approaches. This can be linked to as why information retrieval was low in the university libraries under study because most of the catalogues in academic libraries like universities are filed under author.

Table 3: Chi Square Test on the Influence of Catalogue use Approach on Users' Information Retrieval.

Variables	A.A	T.A	S.A	A.E.A	TOTAL	X ²	df	p-value	Decision P<0.05
Observed	40	21	280	6	347(100)	35.609	12	0.005	Significant
Expected	86.75	86.75	86.75	86.75	347(100)				

Key A.A=Author Approach; T.A=Title Approach; S.A=Subject Approach; A.E.A=Added Entry Approach

Table 3 above shows the Chi-Square test on influence of catalogue use approach on users' information retrieval and it revealed that there was significant influence of catalogue use approach on users' information retrieval in university libraries of North East Zone, Nigeria because the p-value = 0.005. This decision is taken because the p-value = 0.005 is less than 0.05 level of significance with 12 degree of freedom. This means that the null hypothesis which states that, there is no significant influence of catalogue use approach on users' information retrieval in university libraries in North East Zone, Nigeria was rejected. This implies that if users must

retrieve the information resources needed effectively, the right catalogue approach should be employed by users in University libraries of North East Zone, Nigeria.

Table 4: Chi Square Test on the Influence of Catalogue use Skill on Users' Information Retrieval

Variables	Excellent	Good	Fairly Good	Poor	TOTAL	X ²	Df	p-value	Decision P<0.05
Observed	46	16	251	34	347(100)	28.831	12	0.000	Significant
Expected	86.75	86.75	86.75	86.75	347(100)				

Table 4 above shows the Chi-Square test on influence of catalogue use skills on users' information retrieval and it revealed that there is significant influence of catalogue use skill on users' information retrieval in university libraries of North East Zone, Nigeria this is because the p-value = 0.000. This decision was taken because the p-value = 0.000 is less than 0.05 level of significance with 12 degree of freedom. This implies that the null hypothesis which states that there is no significant influence of catalogue use skill on users' information retrieval in university libraries of North East Zone, Nigeria was rejected. This means that if the users have adequate catalogue use skill, there will be effective information retrieval by the users in university libraries of North East Zone, Nigeria.

Summary

This study was carried out to determine the influence of catalogue use approach and skill on users' information retrieval in university libraries of North East Zone, Nigeria. Catalogue use approach refers diverse means through which information resources or a document can be searched in catalogue by a user, users always use different approaches when searching the library catalogue and for this reason different access point have been created, while catalogue use skill refers to users' knowledge of different approaches and their ability to utilize it in searching information resources and information retrieval means the activity of obtaining information resources relevant to an information need from a collection of information resources. The study reviewed relevant literatures on the concept of the problem investigated. This has become very crucial so as to set the basis upon which the study was developed. Library users of the universities under study were used as the population of the study out of whom a sample was drawn. The instruments used for the data collection was questionnaire. Survey method was adopted for the study.

Findings:

1. The study revealed that the level of information retrieval of the respondents was to the low extent in university libraries of North East Nigeria. This was evident by the fact that majority of the respondents that is, 250 (72.0%) have low level of information retrieval.
2. The study further discovered that majority of the library users that is, 280(80.7%) use subject approaches. This was indicated by majority of the respondents in university libraries of North East Nigeria.
3. It was also established that there was significant influence of catalogue use approach on users' information retrieval in university libraries of North East Zone, Nigeria.

4. The study also revealed that was significant influence of catalogue use approach on users' information retrieval in university libraries of North East Zone, Nigeria.

Conclusions and Recommendations

Library catalogue is a very vital tool without which retrieving information will be very difficult if not to say impossible. Findings revealed that the level of information retrieval of the respondents was to the low extent in university libraries of North East Zone Nigeria. Likewise it was revealed that majority of the library users use subject approaches. However, it was also revealed that there was significant influence of catalogue use approach and skill on users' information retrieval in university libraries of North East Zone, Nigeria. It can thus be concluded that the effectiveness of information retrieval of any user depends on the choice of approach and the skill possessed. On the other hand, the study thus recommended the following:

1. The library management of universities in North East Zone, Nigeria should guide the users in handling the library catalogue so as to improve their information retrieval.
2. The library management should orient users to explore other approaches when using the library catalogue.
3. The library and university management should organize teaching on how to use library catalogue and also include in the school curriculum so as to improve their skills.

References

1. Aguolu, C.C. (1980). Problem of Physical Access to Nigerian University Libraries. *Bendel Library Journal*. 3(1), 9-15.
2. Aguolu, C.C. & Aguolu, I.E. (2002). *Libraries and information management in Nigeria*. Maiduguri: ED-Inform Services: 383-399.
3. Amanda, B. (2012). "Approaches To Library Catalogues", *Library Management*, 14(5), 9.
4. American Psychological Association (2016) author catalog. (n.d.). *Dictionary.com Unabridged*. Retrieved June 21, 2016 from Dictionary.com website <http://www.dictionary.com/browse/author-catalog>
5. Amkpa, S.A. & Imam, I (2011). Library Instruction Programme as a Correlate of Student Catalogue Use in College Education Libraries, *Library Philosophy and Practice*, 2.
6. Apotiade, J. K. (2002). *Ibadan distance learning centre series: LSE 302 cataloguing and classification*. Ibadan: Distance learning centre University of Ibadan, 5.
7. Basil, A. (2001). "Frequency Awareness Preferred Access and Relevance". A study of undergraduate catalogue use at the University of Ife library, *Nigeria Libraries*, 18.
8. Boayke, J. (1999). Users' Awareness and Use of Science and Technology Collections at the University of Science and technology libraries, *Journal of Librarianship and Information Science*, 31 (4), 205-210.
9. Clark, S. O. (2000). *Fundamentals of library science*. Warri: COEA publishers. *Cnindex.fudan.edu.cn*. Retrieved 25th April, 2016.
10. Dorothy, N.M (2001). *A parameter of catalogue*; London: Assistant librarian 5-6.
11. Dudley, M. (1972). Teaching library skills to college students. In Melving J. Voigth (Ed).

12. *Advances in Librarianship*, vol. 3 London: Seminar Press, 83-194.
13. Egberongbe, H.S. (2000). Catalogue use study; a survey of user searches at the University of Lagos library, *Nigerian Libraries* 34 (1), 17-27.
14. Haider, S. (2015). Information Access Through the Subject: An Annotated Bibliography Online Open Thesis, 408; 23 cm. <https://librarianshipstudies.blogspot.com/2017/03/problems-of-natural-language-in-indexing.html>.
15. Ian, R. & Mounia, L . A (2003). Survey on the use of relevance feedback for information access systems. Retrieved 16th March, 2016 from <http://www.afrrvjo.com>.
16. Jansen, B. J. & Rieh, S. (2010) *The Seventeen Theoretical Constructs of Information Searching and Information Retrieval*. Journal of the American Society for Information Sciences and Technology. 61(8), 1517-1534.
17. Nwalo, K.I.N (2013). Cataloguing: Soul of librarianship Faculty lecture delivered at the University of Ibadan.
18. Nwana, O.C. (2005). *Introduction to Educational Research*, Revised Edition: Heinemann Educational Book Nigeria Plc. 65.
19. Ojedokun, A. A. (2007). *Information literacy for tertiary education students in Africa* . Ibadan: Third World Information Services Limited.
20. Ojo-Ade, C.O. and Jagboro, K.O. (2000). Subject catalogue use at the Hezekiah Oluwa sanmi library, Obafemi Awolowo University. *African Journal of Library Archives and Information Science* 10 (2), 177-186.
21. Osode, S. (1987). Use and relevance of information on the card catalogue for undergraduate students. *Library Review* 36 (4), 261-267.
22. Umar, B. F., Abareh, H.M & Basaka, A.A. (2017). Awareness and Utilization of Library Public Access Catalogue by Undergraduate Students of Abubakar Tafawa Balewa University. *International Journal of Research in Library Science*. 3(1), 133-134. Retrieved 30th May, 2017 from www.ijris.in.
23. Unagha, A.O(2010); Knowledge Organization and Information Retrieval Whytem Publisher, pp. 23-39.

