## DESCRIPTIVE ANALYSIS OF THE EFFICACY AND APPLICABILITY OF LIBRARY CATALOGUE FOR INFORMATION RETRIEVAL AMONG UNDERGRADUATE STUDENTS OF LIBRARY AND INFORMATION SCIENCE IN UNIVERSITY OF UYO LIBRARY, AKWA IBOM STATE, NIGERIA

# Chizoba Doris Nnadozie[1]; Inemesit Udom Udoh[2] & Priscilla Odeyovwi Osiebe[3]

[1]University Library, Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria
[2]University Library, Akwa Ibom State University, Ikot Akpaden, Akwa Ibom State, Nigeria
[3]University Library, Dennis Osadebe University, Anwai, Asaba, Delta State.
[1]chizochuma@gmail.com; [2]inemuddarlingdesmart@gmail.com; [3]osiebepriscillaodeyovwi@gmail.com
[2]ORCID No.: https://orcids.org/0000-0003-0230-3817
[2]Mobile No.: +234(0)8084872570

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**ABSTRACT**

*The study assessed the effectiveness of library catalogues for information retrieval among undergraduate students in Library and Information Science at the University of Uyo. Using a descriptive research design, the study surveyed 273 students with a questionnaire, achieving a 92% response rate. Data were analyzed using descriptive statistics. Findings indicated that students had a high awareness of library catalogues, and a positive perception of their application. However, the frequency of catalogue usage was low. The study also found that library catalogues significantly enhanced the ease, accuracy, and timeliness of information retrieval. Challenges such as insufficient time to search catalogues, inability to locate items on shelves, lack of OPAC, and inadequate user education were identified as barriers. The study recommended improving user education, creating awareness about the importance of catalogues, and ensuring better organization of catalogue cards to enhance their effectiveness.*

## INTRODUCTION

University libraries are unequivocally indispensable in any university system. They serve as the centers of information and knowledge transmission. University libraries are typically saddled with the core responsibilities of selecting, acquiring, processing and ensuring access to information resources, which include: books, periodicals, maps, online databases, audiovisual materials and other information resources in both print and non-print formats (Amadi et al., 2020; Clifford & Zaccus, 2015; Oghenekaro, 2018; Udoh et al., 2020a). They serve as the pivot through which information are systematically and meticulously organized to allow easy and seamless access and retrieval by teeming library users, including undergraduate students of Library and Information Science. As a matter of fact, enhancing access and information retrieval in the university libraries is like galvanizing the flow of blood from the heart to the various constituents of the university. This can be effectively achieved through the help of the library catalogue, which is the heart, pulse, linchpin or strategic information retrieval tool in any library.

A library catalogue is defined as a record or list of books, periodicals, journals, pamphlets, monographs, audiovisual aids and other materials of a particular library, or a group of libraries, like the union catalogue, or a private collection containing specified items of bibliographic information, namely; author, title, edition, imprint, collation, etc. (Atanda & Ugwulebo, 2017). Library catalogue is an essential information retrieval tool which assists information users to access information resources in a library using various access points. The Oxford English Dictionary, as cited in Sood (2023) conceived the library catalogue as a systematic and methodical list, enumeration or arrangement, in alphabetical and other sequence, in addition to a brief particular, descriptive or aiding identification, indicative of locality, position, date or price of information resources. They are strategic information access and retrieval tools that help in unlocking the intellectual, educational, informational and recreational collections in university libraries (Udoh et al., 2020b). Library catalogue informs library users like the undergraduate students of Library and Information Science about various types of information resources available and where they can be found or located within a library holding. They represent the keys to the holdings of any library, helping to interpret the information resources to library users, while enhancing easier, quicker and convenient location, accessibility, retrieval and utilization of information resources. They are flexible, regularly updated, cost-effective, maintainable and durable information search and retrieval tools.

Library catalogue exists in different forms such as manual catalogue or machine readable catalogue (MARC) like online public access catalogues (OPACs), which are various ways of manually or electronically retrieving information resources by providing access points to the resources (Atanda & Ugwulebo, 2017; Igere, 2022; Oghenekaro, 2018). However, manual catalogues are card catalogues measuring 7.5cm × 12.5cm or 3x5 inches in dimension with entries showing the author, title, subject and other access points of information resources, and usually arranged alphabetically or in a categorized order in cabinet drawers (Bakare & Ogochukwu, 2022). On the contrary, Online Public Access Catalogue (OPAC) is an electronic counterpart or version of the card catalogue (Igere, 2022). It is a computerized online catalogue of information resources held in a library where library staff and users can virtually access using computer networks located in a library or remotely via internet connection at home and offices. OPAC is typically a technological upgrade of the card catalogues with many access points such as author, title, subject, keyword, publisher data, standard number, and other metadata for enhanced search and quicker information retrieval.

Information retrieval is the act of searching and obtaining desired information from a large collection of information sources whether offline or online to satisfy identified needs be it academic or socio-cultural purposes. Information retrieval is defined by Unagha, as cited in Chima and Ude (2020) as the process of searching some collections of documents to identify those documents that deal with a particular subject. It is a systematic and well-articulated process, method, procedure or structure developed for the selection, gathering, and recalling of recorded information. Igere (2022) conceived information retrieval as the process of finding library resources that satisfy the information needs of library patrons from a large collection. It precedes information utilization, and helps to fulfill the mission and objectives of the university libraries, as well as justifies the investment made in the acquisition and processing of information resources. Information retrieval is characteristically the essence of both manual and online library catalogues. It is the compass for consumption of information resources, facilitating the satisfaction of information, educational, research and recreational needs of students.

Meanwhile, whether with the manual form such as card catalogue or electronic format like Online Public Access Catalogue (OPAC), library catalogue provides impetus for the management of information resources, as well as the speed, accuracy and convenience of retrieving information in university libraries. This implies that efficacious application of library catalogue by undergraduate students is of utmost important in utilizing information resources in the university libraries. It helps in providing essential bibliographic details which are relied upon for quick search and information retrieval as essential ingredient in enhancing academic performance, achieving better research activities, and successfully embarking on other information-driven tasks. However, despite the importance of the library catalogues for information retrieval, literature shows that most students

have strong resistance to its application, perceiving it as time-consuming while preferring to browse library shelves in search and retrieval of information resources for use. Therefore, based on the above background, this study investigated the efficacy and applicability of library catalogues in information retrieval among undergraduate students of Library and Information Science in University of Uyo Library, Akwa Ibom State, Nigeria.

## 1.1    STATEMENT OF THE PROBLEM

University libraries are characteristically established to provide access through which students can effectively and seamlessly satisfy their information, research and recreational needs in order to accomplish their overall academic purposes. To galvanize this well-established goal, university libraries are duty bound to produce, create aware and ensure effective application of library catalogue as the key to unlocking the holdings of the libraries. Library catalogues, whether card or electronic-based catalogue, is a major information retrieval mechanism that has brought many changes, making information access and retrieval easier, better and accurate to various categories of library users, including undergraduate students. Nevertheless, in spite of the incontestable relevance of the library catalogue, most university libraries and librarians still fall short of basic skills and awareness programmes that could propel undergraduate students' interest, likeness and efficacious application of library catalogues for information retrieval. As a matter of fact, preliminary observations and meticulous examination of literature by these researchers evidently showed that most undergraduate students in some universities do not use the library catalogue in retrieving information resources from the university libraries, rather they prefer direct browsing of library shelves or asking library staff for assistance to utilizing the library catalogue in retrieving information resources. It is also observed that this situation has persisted for so long across various university libraries in Nigeria but the condition in University of Uyo library, especially among the undergraduate students of Library and Information Science is not certain. Thus, this lacuna prompted this study.

## 1.3    OBJECTIVES OF THE STUDY

The specific objectives of this study were, to:

i. Determine the level of awareness of library catalogue for information retrieval among undergraduate students of Library and Information Science in Univeristy of Uyo library.
ii. Evaluate the perception of undergraduate students of Library and Information Science toward the application of library catalogue for information retrieval in Universty of Uyo library.
iii. Ascertain the effects of application of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo library.
iv. Examine the frequency of application of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo library.
v. Identify the factors affecting the efficacy and applicability of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo library.

## 2.0    LITERATURE REVIEW

This study anchors on the Information Processing Theory (IPT). The Information Processing Theory (IPT) was developed in 1956 by George A. Miller. The theory holds that humans process the information they receive, rather than merely responding to stimuli. According to Miller (1956), standard information processing model involves the mind's machinery, which includes attention mechanisms for bringing information in, working memory for actively manipulating information, and long-term memory for passively holding information so that it can be used in the future. This theory has essential principles for systematic information processing in university libraries, and shapes the production of various types and media of library catalogues in print and electronic formats for enhanced information retrieval. The theory is relevant to this study since it revolves around the continuous production of library catalogue to reflect the continuous growth of information resources in order to help in easy search and retrieval of information needed by library users. The theory has imperatives in streamlining the processes through which information resources are processed taking into consideration various bibliographic details of the resources such as author, title, subject, place and year of publication, dimension of the document, illustrations, standard number, class mark, and other vital metadata. It is useful in this research because both information processing theory and library catalogue harp on proper encoding or interpretation of information and identification of information needs, developing information processing and retrieval abilities like understanding symbols or notations for information retrieval. The theory affects both information providers who are duty bound to meticulously process the universe of information and knowledge in the university libraries and meticulously arrange them alphabetically or chronologically in the catalogue cabinets according to author, title and subject for easy access, retrieval and utilization of information resources and the library users including the undergraduate students of Library and Information Science who are expected to develop clear imaginative of what information they want and how to retrieve such information from the university libraries.

Moreover, some relevant empirical studies were reviewed in addition to the information processing theory to support the study. Ariya and Obaje (2022) investigated

the awareness and extent of the use of library catalogues by diploma students of Federal Polytechnic Bauchi. The study revealed that students were aware of the existence of the library catalogue but majority of the students go to the shelves directly to check for materials of interest and use of the internet to browse different sites as preferred methods of searching for information. It identified lack of knowledge of the catalogue entries, inability to use the catalogue without assistance and students' inability to use the call numbers to locate resources on the shelves as the major constraints facing the use of library catalogue by the students. It recommended that libraries should organize seminars and workshops in the form of users' education programmes from time to time to educate students on how to use the call numbers for retrieval of materials from the shelves and the importance of using the library catalogue.

Bakare and Ogochukwu (2022) examined the perceptions and attitudes toward the use of manual and online catalogues among undergraduate students in selected university libraries in North Central, Nigeria. The study revealed that undergraduate students in the university libraries prefer OPAC over the card catalogue; and that despite the availability of the OPAC, many students still patronized the card catalogue, which means that in terms of patronage, the gap between the OPAC and card catalogue is not that much. It recommended that library management should organize periodic user education programmes the for undergraduate students in order to equip them with the knowledge and abilities to find books and other information resources in the library using the card catalogue and OPAC as an effective searching tool.

Similarly, Igere (2022) conducted a study on the relevance of library catalogue on usage of library resources among undergraduate students of Library and Information Science in University of Benin. The study revealed that students regularly use the library catalogue to access information materials. It showed that students mostly used title catalogue as access point in locating information resources in the library, and indicated that library catalogue positively influenced access to information materials in the library. The study recommended that students should be taught the need to use of library catalogue since it has a positive influence on access to information resources.

In another related study, Iwhiwhu (2020) investigated cataloguing and classification training of Library and Information Science undergraduates and their use of library catalogue at Delta State University. The study showed that Library and Information Science (LIS) undergraduate students in Delta State University, Abraka, have negative perception towards the study of cataloguing and classification as a course and poor disposition to the use of library catalogue. It revealed that the LIS undergraduates possess very minimal cataloguing and classification skills obtained from the training. It found that lack of cataloguing and classification laboratory, inadequate cataloguing and classification tools,

inadequate time allocated for the teaching and practical learning of cataloguing and classification, and outdated teaching methods by lecturers are some of the problems facing the study of cataloguing and classification course.

Udoh et al. (2020b) also conducted a study on strategic information access tools for dissemination of information in academic libraries in a digital era in Nigeria. The study indicated that strategic information access tools for dissemination of information include: library catalogue, indexes, abstracts, bibliographies, Internet search engines, online databases/CD-ROMs, etc. It showed that strategic information access tools assist in effective management of information resources, as well as the speed, accuracy and convenience of dissemination of information. The study identified inadequate trained staff to handle technical services, lack of current digital information access tools such as: OPAC, MARC, etc., inadequate computers and related ICT facilities, epileptic power supply, etc., as some of the problems confronting strategic information access tools for dissemination of information. It recommended adequate training of staff on technical services, including ICT training on how to handle web-based access tools; provision of adequate funding to academic libraries, provision of adequate functional computers and related facilities, etc., as some measures for enhancing strategic access tools in university libraries.

Eserada and Okolo (2019) equally investigated the use of online public access catalogue (OPAC) in university libraries in South- South Nigeria. It found that students' use of OPAC in university libraries in South-South Nigeria is low. It showed that the students used OPAC for the main purpose of locating documents, knowing about a document without physically visiting the library, searching and retrieving information. It indicated that the frequency of use of OPAC by majority of the students was rarely, others indicated that they never use OPAC for searching for information resources in the library, while a few, sometimes used OPAC to source materials in the library. The study identified challenges facing the use of OPAC to include: poor/irregular power supply, lack of OPAC knowledge and unfamiliarity with the OPAC system, inadequate computer terminals, navigational frustrations, lack of assistance from library staff, etc. It recommended that universities should be equipped with the enabling infrastructure such as adequate power supply, and effective Internet connectivity, while students should be trained to acquire necessary skills for use of OPAC in the university libraries.

More so, Mohammed and Temboge (2019) examined users' attitude towards the use of library catalogue for accessing information resources in Federal University of Kashere Library in Gombe State, Nigeria. The study revealed that majority of the students were aware of library catalogue existence, and were more informed about card catalogue usage than OPAC for retrieving information resources. It showed that the students used card catalogue more regularly than OPAC, while majority of the students used the library for research work rather than for

leisure and recreational purposes. The study found that poor computer skills hindered navigation when searching OPAC and inability to locate materials on the shelves by using the catalogue as the challenges affecting the use of catalogue as information retrieval tools. It recommended that the library management should organize a periodic user education, orientation and sensitization programmes for the undergraduate users to create awareness and enable them gain the needed skills to use the library catalogue maximally when searching for information resources. It was also recommended that guidelines on how to use library catalogue should be prepared and issued to registered users, while regular shelf reading should be done so as to establish right contact between library users and library materials.

Oghenekaro (2019) further studied the use of library catalogue in Nigerian university libraries using the Redeemer's University library, Osun State, Nigeria. The study found that majority of the students do not use the library catalogue even though they are aware of the existence of the library catalogue in the university library. It recommended that periodic user education programmes should be organized for the students to enable them to acquire the necessary skills on how to use the library catalogue in information search and retrieval in the university library. This was also as Atanda and Ugwulebo (2017) in their study on awareness, access and utilization of library catalogue by undergraduate students of the College of Law, Osun State University Osogbo, Osun State, Nigeria, revealed that students were able to access the library catalogue through the use of author access point, and that both awareness and access facilitate speed in using information in the College of Law, Osun State University.

Clifford and Zaccus (2015) investigated users' attitude towards the use of library catalogue in Kenneth Dike library, University of Ibadan and Osun State University library, Osogbo. The study showed that majority of users preferred going directly to the shelves to search for materials rather than going through the catalogue cabinet. It revealed that the students viewed the catalogue as time wasting, as they felt it took them less time to find books directly on the shelves. It also discovered that most of the students are yet to be conscious of the existence of the online public access catalogue, do not understand its operations and infrequently use the service despite the huge investment on resources. The study recommended practical oriented users' education programmes on the use of library catalogue for information retrieval for the students, wide publicity on the workings of library catalogue, while guidelines on how to use library catalogue should be prepared and displayed in strategic places where users can easily see for direction. Lastly, in a study by Posigha (2010) on the use of the library catalogue by undergraduate students in Niger Delta University, it was revealed that majority of the undergraduate students were not aware of library catalogue, and had never used the library catalogue in obtaining information from the library.

It showed that majority of the undergraduate students encountered difficulties in using library catalogue due to lack of proper education, which made them to resolve to browsing through the library shelves to locate books. It suggested proper user education, regular orientation programme and provision of guidelines as the means of enhancing easy use of library catalogue in the library.

From the above reviews, it was clear that examining the efficacy and applicability of library catalogue for information retrieval among undergraduate students of Library and Information Science is a pertinent research area to embark upon. This is because there is still need to encourage librarians and library management to keep on sensitizing the students on the benefits of positively perceiving and applying the library catalogues whether card or online version in their information retrieval. The study was particularly necessary because from the reviewed studies, none of them captured the situation with the undergraduate students of Library and Information Science vis-à-vis applicability of library catalogues for information retrieval in University of Uyo since no study was available within the reach and knowledge of these researchers. Thus, this study was conducted to fill the observed gap in knowledge.

## 3.0     METHODOLOGY

The study adopted a descriptive research design to systematically describe via data collection the attitudes, opinions, feelings, and beliefs of the undergraduate students of Library and Information Science on the efficacy and applicability of library catalogues for information retrieval in the University of Uyo, Uyo, Akwa Ibom State, Nigeria. The population of the study consisted of 273 undergraduate students, comprising one hundred and nineteen (119) 200 level students and one hundred and fifty-four (154) third year (300 level) students. The total enumeration sampling technique was considered since the study population was small and well manageable. The researchers' developed structured questionnaire with closed-ended questions on a 4-point rating scale was used for data collection. The questionnaire was titled, ***"Efficacy and Applicability of Library Catalogues for Information Retrieval among Undergraduate Students' of Library and Information Science Questionnaire (EALCIRUSLISQ)."*** The questionnaire was subjected to face validation and pretested for reliability using Cronbach's Alpha reliability formula, which yielded 0.82 reliability coefficient index. Consequently, 273 copies of the questionnaire were physically distributed to the respondents with the help of two (2) research assistants who were quite familiar with the respondents, and the process yielded 91.94% (approximated to 92%) response rate, indicating that out of the 273 copies distributed, 251 were completed and returned while 22 copies were lost. The data collected were analysed and presented using descriptive statistics of simple chart, frequency counts, mean scores and standard deviations. The criterion mean

for agreement and/or disagreement was of 2.50 obtained through a simple computation of the 4-point rating scales of 4+3+2+1 divided by 4 (i.e. 4+3+2+1 ÷ 4 = 10/4 = 2.50), representing Highly Aware (HA = 4), Aware (A = 3), Fairly Aware (FA = 2), and Not Aware (NA = 1); as well as Strongly Agree (SA = 4), Agree (A = 3), Disagree (D = 2) and Strongly Disagree (SD = 1).

## 4.0     RESULTS AND DISCUSSION OF FINDINGS

The analysis was based on the responses of 251 respondents who completed and returned the questionnaire with valid information as shown in the simple chart below. More so, the raw data were coded using Statistical Package for Sciences (SPSS-Version 29), and presented in table to show the extent of the respondents' level of agreement and/or disagreement in each of the items of investigation.

**Figure 1: Chart showing the Questionnaire Distributed (QD), Questionnaire Retrieved (QR) and Percentage Rate of Questionnaire Retrieved (% of QR)**

The simple chart above showed the questionnaire distributed and retrieval rate. It revealed that out of the 273 copies of the questionnaire distributed, a total of 251 copies were retrieved. It further indicated that out of the 119 copies distributed to the respondents from 200 level, 109 (43.43%) were completed whereas of the 154 copies administered to the respondents from 300 level, 142 making up of 56.57% were completed and retrieved. More so, out of a total of 112 copies distributed to the male respondents from 200 and 300 levels, 101 (40.24%) were completed and retrieved, while 150 copies representing 59.76% were completed and retrieved from the 161 copies administered to the female respondents from 200 and 300 levels. This retrieval rate was used throughout the data analyses and provided the basis for making generalization about the respondent's level of awareness, perception and utilization of library catalogue in information retrieval in the university.

Data in Table 1 revealed that the overall level of awareness of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo library is high. This was indicated by a higher grand mean of 2.65 against the criterion mean of 2.50. it specifically showed that the students are aware of author card (3.03, 0.83); subject card (2.82, 0.82); title card (2.76, 0.80); aware of library catalogues for connecting users with various types of information resources (2.73, 0.83); and aware of library

catalogues as tools for identifying information resources (2.58, 0.98). On the contrary, the students disagreed with the options of being aware of library catalogues for knowing all subjects of information resources (2,37, 0.75); and being aware of library catalogues for knowing all titles of information resources (2.29, 0.72). The finding agrees with Ariya and Obaje (2022), as well as Oghenekaro (2018), which revealed that students were aware of the existence of the library catalogues even though majority of the students prefer to go to the shelves directly to check for materials of interest as well as use the internet to browse different sites in searching for information. The finding however disagrees with Posigha (2010), which found that majority of undergraduate students in Niger Delta University were not aware of library catalogue, and had never used library catalogue in accessing and retrieving information for use in the library.

The data in Table 2 revealed that the overall perception of undergraduate students of Library and Information Science towards the application of library catalogues for information retrieval in University of Uyo library is positive, as indicated by a higher grand mean of 2.55 against the criterion mean of 2.50. The results showed that the students perceived library catalogue as more efficient information search and retrieval tools (3.09, 0.87); applying library catalogues is the best information search and retrieval strategy (2.90, 0.79); as well as feeling comfortable applying library catalogues for information retrieval (2.53, 0.86). On the contrary, the results found that the students disagreed with items that negatively perceived the application of library catalogues as a waste of time for information retrieval (2.44, 0.86); not knowing how to apply library catalogue for information retrieval (2.47, 0.81); double task in applying library catalogues for information retrieval (2.20, 0.85); and always confusing (2.06, 0.86). The result further indicated that though the students expressed positive perception toward the application of library catalogue in information retrieval, they still agreed to prefer browsing the library shelves for retrieval information resources to applying library catalogues with a mean score of 2.69 and standard deviation of 0.79. The finding partially disagrees with Iwhiwhu (2020), which found that LIS undergraduate students in Delta State University, Abraka, have negative disposition to the use of library catalogue. It also partly disaffirms earlier study by Clifford and Zaccus (2015), which discovered that majority of students preferred going directly to the shelves to search for materials perceiving the use of catalogue as time wasting in finding library resources. It equally partially gives credence to Bakare and Ogochukwu (2022), who investigated the perceptions and attitudes of undergraduate students toward the use of manual and online catalogues in some university libraries in North Central, Nigeria, and discovered that the undergraduate students in the university libraries preferred OPAC over the card catalogue, even though some of them still patronized the card catalogue in information access and retrieval.
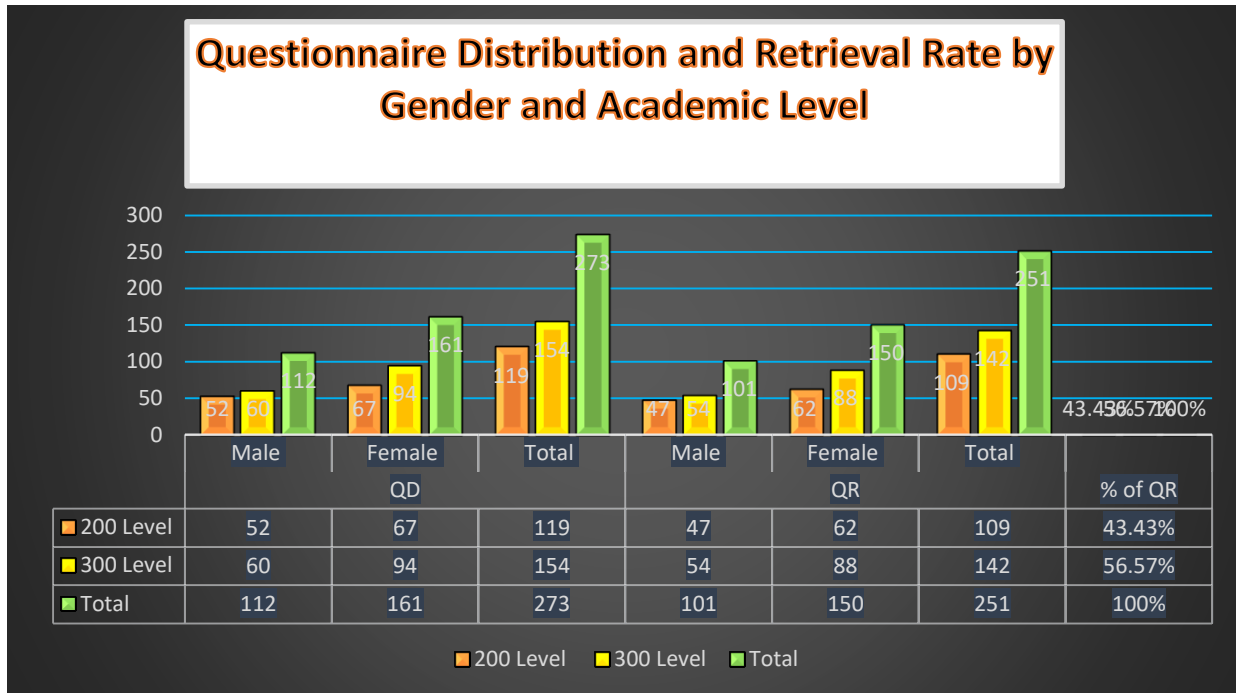
Data in Table 3 revealed that the overall effects of application of library catalogue in information retrieval among undergraduate students of Library and Information Science in University of Uyo library was high. This was indicated by a higher grand mean of 2.72 against the criterion mean of 2.50. It showed that the application of library catalogues eases the retrieval of information resources (3.15, 0.70); easy discovery of information resources from the same author, title and subject in all areas of information needs (3.13, 0.59); precise location of information resources for recreational purposes (3.08, 0.80); accurate information resources for academic works (3.07, 0.70); and timely location of information resources for assignments (2.94, 0.89). On the other hand, the respondents disagreed with the options that investigated OPAC for enhanced identification of information resources without physically visiting the library (2.41, 0.72); easy retrieval of related information resources for examinations (2.35, 0.85); quest for more information and knowledge (2.23, 0.83); and timely location of information resources on particular subjects and topics (2.16, 0.72) as effects of applying library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo library. The finding corroborates with Igere (2022), which found that the use of library catalogue positively helps students in accessing and locating information materials in libraries. It also partially aligns with Udoh et al. (2020b), who discovered that the use of library catalogue as one of the strategic information access tools facilitates speed in the acquisition of information resources while promoting accuracy and convenience in information retrieval in university libraries.

The data on Table 5 showed that the overall frequency of application of library catalogues for information retrieval among undergraduate students of Library and Information Science in University of Uyo library is very low, with a lower cumulative mean of 2.30 against the 2.50 criterion mean. The result indicated that majority of the students only agreed to applying the library catalogues sometimes (2.99, 0.79); while daily application (2.29, 0.83); always application (2.02, 0.85); most of the time application (2.30, 0.86); rarely application (1.92, 0.79); and never apply the library catalogue before (2.33, 0.75) were disagreed upon by the LIS students, as their mean scores were lower than the 2.50 criterion mean.

The finding agrees with previous studies by Eserada and Okolo (2019), Clifford and Zaccus (2015), as well as Oghenekaro (2018), found that students' use of catalogue was generally low as most students prefer going directly to the library shelves to retrieve information resources. It also corroborates with Posigha (2010), which found that majority of students had never used library catalogue in their information search.

Data in Table 5 showed an overall affirmation with the factors affecting the efficacy and applicability of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo, with a higher cumulative mean of 3.02 against the 2.50 criterion mean. It specifically revealed that the major factors affecting the efficacy and applicability of library catalogue for information retrieval include: poor computer skills to navigate OPAC (3.43, 0.64); lack of adequate time to search the catalogue cabinets for library catalogue (3.28, 0.71); inability to retrieve information resources on the shelves as indicated in the library catalogue (3.24, .67); lack of assistance from library staff (3.15, 0.69); time wasting when using library catalogue (3.14, 0.61); inadequate user education and awareness (2.99, 0.87); and queues at catalogue cabinets' corners (2.94, 077). Other factors are: lack of OPAC in the university library (2.89, 0.79); power outages in the university library causing frustration (2.87, 0.82); poor arrangement of library catalogues in the catalogue cabinet (2.86, 0.66); difficulty in getting information from library catalogue due to poor retrieval skills (2.82, 1.01); and lack of understanding of the information on the library catalogue (2.76, 0.85). These factors are serious impediments to the efficacy and applicability of library catalogues for information retrieval among undergraduate students in many Nigerian university libraries. The finding confirms previous studies conducted by Ariya and Obaje (2022); Clifford and Zaccus (2015); Eserada and Okolo (2019); as well as Mohammed and Temboge (2019), which identified lack of knowledge of the catalogue entries, poor understanding of the operations of library catalogue, inability to use the catalogue without assistance and students' inability to use the call numbers to locate resources on the shelves as the major hindrances to the use of library catalogue by students.

**Figure 1: Chart showing the Questionnaire Distributed (QD), Questionnaire Retrieved (QR) and Percentage Rate of Questionnaire Retrieved (% of QR)**



Questionnaire Distribution and Retrieval Rate by Gender and Academic Level

|  | Male | Female | Total | Male | Female | Total | % of QR |
|---|---|---|---|---|---|---|---|
|  | QD | | | QR | | | |
| 200 Level | 52 | 67 | 119 | 47 | 62 | 109 | 43.43% |
| 300 Level | 60 | 94 | 154 | 54 | 88 | 142 | 56.57% |
| Total | 112 | 161 | 273 | 101 | 150 | 251 | 100% |

**Research Objective 1:** To determine the level of awareness of library catalogue for information retrieval among the undergraduate students of Library and Information Science in University of Uyo library.

**Table 1:** Mean and standard deviation responses on the level of awareness of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo library (n = 251)

| S/N | Item Statements | SA | A | D | SD | Mean | Std. Dev. | Remark |
|---|---|---|---|---|---|---|---|---|
| 1. | Being aware of author cards for easier retrieval of information resources | 79 | 111 | 50 | 11 | 3.03 | 0.83 | Agreed |
| 2. | Being aware of title cards for convenient access of information resources | 41 | 124 | 70 | 16 | 2.76 | 0.80 | Agreed |
| 3. | Being aware of subject cards for faster location of information resources | 46 | 133 | 53 | 19 | 2.82 | 0.82 | Agreed |
| 4. | Being aware of library catalogues for connecting users with various types of information resources | 47 | 103 | 87 | 14 | 2.73 | 0.83 | Agreed |
| 5. | Being aware of library catalogues for knowing all titles of information resources | 17 | 60 | 153 | 21 | 2.29 | 0.72 | Disagreed |
| 6. | Being aware of library catalogues as tools for identifying information resources | 57 | 64 | 97 | 33 | 2.58 | 0.98 | Agreed |
| 7. | Being aware of library catalogues for knowing all subjects of information resources | 24 | 63 | 147 | 17 | 2.37 | 0.75 | Disagreed |
| | *Grand Mean* | | | | | *2.65* | *0.82* | *Disagreed* |
| | *Criterion Mean* | | | | | *2.50* | | |

**Source: Researcher's Field Survey, 2024**

**Research Objective 2:** To evaluate the perception of undergraduate students of Library and Information Science towards the application of library catalogue for information retrieval in University of Uyo library.

**Table 2:** Mean and standard deviation responses on the perception of undergraduate students of Library and Information Science towards the application of library catalogues for information retrieval in University of Uyo library (n = 251)

| S/N | Item Statements | SA | A | D | SD | Mean | Std. Dev. | Remark |
|---|---|---|---|---|---|---|---|---|
| 1. | I feel comfortable applying library catalogues for information retrieval | 49 | 49 | 140 | 13 | 2.53 | 0.86 | Agreed |
| 2. | I see it as a waste of time to use library catalogue for information retrieval | 38 | 57 | 133 | 23 | 2.44 | 0.86 | Disagreed |
| 3. | I prefer browsing the library shelves to retrieve information resources to applying library catalogues | 35 | 117 | 84 | 15 | 2.69 | 0.79 | Agreed |
| 4. | I don't actually know how to apply library catalogues for information retrieval | 16 | 120 | 81 | 34 | 2.47 | 0.81 | Disagreed |
| 5. | Applying library catalogues is the best information search and retrieval strategy | 64 | 102 | 82 | 3 | 2.90 | 0.79 | Agreed |
| 6. | Applying library catalogues for information retrieval is a double task | 24 | 47 | 134 | 46 | 2.20 | 0.85 | Disagreed |
| 7. | The information on the library catalogues is always confusing | 13 | 61 | 106 | 71 | 2.06 | 0.86 | Disagreed |
| 8. | I perceive that library catalogues are more efficient for information search and retrieval tools | 90 | 111 | 33 | 17 | 3.09 | 0.87 | Agreed |
| | ***Grand Mean*** | | | | | ***2.55*** | ***0.84*** | ***Agreed*** |
| | ***Criterion Mean*** | | | | | ***2.50*** | | |

*Source: Researcher's Field Survey, 2024*

**Research Objective 3:** To ascertain the effects of application of library catalogue in information retrieval among undergraduate students of Library and Information Science in University of Uyo library.

**Table 3:** Mean and standard deviation responses on the effects of applying library catalogue in information retrieval among undergraduate students of Library and Information Science in University of Uyo library (n = 251)

| S/N | Item Statements | SA | A | D | SD | Mean | Std. Dev. | Remark |
|---|---|---|---|---|---|---|---|---|
| 1. | Application of library catalogues eases the retrieval of information resources | 80 | 132 | 36 | 3 | 3.15 | 0.70 | Agreed |
| 2. | Timely location of information resources for assignments | 76 | 102 | 56 | 17 | 2.94 | 0.89 | Agreed |
| 3. | Accurate information resources for academic works | 70 | 128 | 53 | 0 | 3.07 | 0.70 | Agreed |
| 4. | Timely location of information resources on particular subjects and topics | 10 | 58 | 144 | 39 | 2.16 | 0.72 | Disagreed |
| 5. | Easy retrieval of related information resources for examinations | 32 | 54 | 136 | 29 | 2.35 | 0.85 | Disagreed |
| 6. | Precise location of information resources for recreational purposes | 79 | 122 | 40 | 10 | 3.08 | 0.80 | Agreed |
| 7. | Easy discovery of information resources from the same author, title and subject in all areas of information needs | 62 | 159 | 30 | 0 | 3.13 | 0.59 | Agreed |
| 8. | Enhances the quest for more information and knowledge | 25 | 47 | 140 | 39 | 2.23 | 0.83 | Disagreed |
| 9. | OPAC enhances identification of information resources without physically visiting the library | 13 | 98 | 118 | 22 | 2.41 | 0.72 | Disagreed |
| | ***Grand Mean*** | | | | | ***2.72*** | ***0.76*** | ***Agreed*** |
| | ***Criterion Mean*** | | | | | ***2.50*** | | |

*Source: Researcher's Field Survey, 2024*

**Research Objective 4:** To examine the frequency of application of library catalogues for information retrieval among undergraduate students of Library and Information Science in University of Uyo library.

**Table 4:** Mean and standard deviation responses on the frequency of application of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo library (n = 251)

| S/N | Item Statements | SA | A | D | SD | Mean | Std. Dev. | Remark |
|---|---|---|---|---|---|---|---|---|
| 1. | I apply the library catalogue on daily basis | 27 | 53 | 137 | 34 | 2.29 | 0.83 | Disagreed |
| 2. | I always apply the library catalogue | 22 | 26 | 137 | 66 | 2.02 | 0.85 | Disagreed |
| 3. | I apply library catalogue most of the time | 34 | 40 | 144 | 33 | 2.30 | 0.86 | Disagreed |
| 4. | I apply the library catalogue sometimes | 69 | 107 | 71 | 4 | 2.96 | 0.79 | Agreed |
| 5. | I rarely apply library catalogue | 15 | 24 | 138 | 74 | 1.92 | 0.79 | Disagreed |
| 6. | I never apply the library catalogue before | 22 | 60 | 149 | 20 | 2.33 | 0.75 | Disagreed |
| | *Grand Mean* | | | | | *2.30* | *0.81* | *Disagreed* |
| | *Criterion Mean* | | | | | *2.50* | | |

*Source: Researcher's Field Survey, 2024*

**Research Objective 5:** To identify the factors affecting the efficacy and applicability of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo library.

**Table 5:** Mean and standard deviation on the factors affecting the efficacy and applicability of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo (n = 251)

| S/N | Item Statements | SA | A | D | SD | Mean | Std. Dev. | Remark |
|---|---|---|---|---|---|---|---|---|
| 1. | Inability to retrieve information resources on the shelves as indicated in the library catalogue | 87 | 144 | 13 | 7 | 3.24 | 0.67 | Agreed |
| 2. | Queues at catalogue cabinets' corners | 61 | 119 | 65 | 6 | 2.94 | 0.77 | Agreed |
| 3. | Time wasting when using library catalogue | 66 | 153 | 32 | 0 | 3.14 | 0.61 | Agreed |
| 4. | Lack of understanding of the information on the library catalogue | 56 | 90 | 94 | 11 | 2.76 | 0.85 | Agreed |
| 5. | Lack of adequate time to search the catalogue cabinets for library catalogue | 102 | 122 | 22 | 5 | 3.28 | 0.71 | Agreed |
| 6. | Lack of OPAC in the university library | 52 | 132 | 54 | 13 | 2.89 | 0.79 | Agreed |
| 7. | Poor computer skills to navigate OPAC | 127 | 104 | 20 | 0 | 3.43 | 0.64 | Agreed |
| 8. | Difficulty in getting information from library catalogue due to poor retrieval skills | 81 | 73 | 69 | 28 | 2.82 | 1.01 | Agreed |
| 9. | Cost of accessing OPAC outside the university library | 74 | 109 | 45 | 23 | 2.93 | 0.91 | Agreed |
| 10. | Power outages in the university library causing frustration | 56 | 120 | 61 | 14 | 2.87 | 0.82 | Agreed |
| 11. | Poor arrangement of library catalogues in the catalogue cabinets | 36 | 147 | 65 | 3 | 2.86 | 0.66 | Agreed |
| 12. | Inadequate user education and awareness | 71 | 128 | 30 | 22 | 2.99 | 0.87 | Agreed |
| 13. | Lack of assistance from library staff | 81 | 126 | 44 | 0 | 3.15 | 0.69 | Agreed |
| | *Average Mean* | | | | | *3.02* | *0.77* | *Agreed* |
| | *Criterion Mean* | | | | | *2.50* | | |

*Source: Researcher's Field Survey, 2024*

## 5.1    Conclusion

Library catalogues are essential tools for information retrieval with great impacts on enhancing students' learning, research activities and overall academic performances. Effective application of library catalogues in information retrieval cannot be overemphasized. In this study, it was revealed that the overall level of awareness of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo library

was high, indicating that the students were aware of author card, subject card, title card and the fact that library catalogues connect users with various types of information resources. It showed that the overall perception of the undergraduate students toward the application of library catalogues for information retrieval was positive, since the students perceived library catalogues as more efficient and best information search and retrieval tools. The study revealed that the overall effects of application of library catalogues in information retrieval among undergraduate

students of Library and Information Science in University of Uyo library was high, enhancing the ease, timely, precise and accurate retrieval of information resources from the same author, title and subject in all areas of information needs. It further indicated that the overall frequency of application of library catalogues for information retrieval among undergraduate students of Library and Information Science in University of Uyo library is very low, with majority of the students only applying the library catalogues sometimes, while others rarely or never apply the library catalogues before for information retrieval in the library. The study identified poor computer skills to navigate OPAC, lack of adequate time to search the catalogue cabinets for library catalogue, inability to retrieve information resources on the shelves as indicated in the library catalogue, lack of assistance from library staff, time wasting when using library catalogue, inadequate user education and awareness, queues at catalogue cabinets' corners, etc., as the factors affecting the efficacy and applicability of library catalogue for information retrieval among undergraduate students of Library and Information Science in University of Uyo library.

## 5.2   RECOMMENDATIONS

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

i.   Management of the university libraries should create more awareness on the importance of library catalogue through user education and other sensitization programmes in order to enhance students' knowledge and improved acceptance of library catalogues as veritable information search and retrieval tools.

ii.   Management of university libraries should embrace and institutionalize Online Public Access Catalogue (OPAC) as a modern information access and retrieval tool in line with students' preference for electronic information resources. This should be supported with special training sessions to help the students acquire necessary skills for the application of OPAC in retrieving information from the library holdings.

iii.   Management of the university libraries should produce more catalogue cabinets and place them in more strategic positions to enhance the ease and speed of applying of library catalogues by the students.

iv.   Library staff should be willing to assist students on how to apply the library catalogues in retrieving information resources from the library shelves since most of the students may not know how to efficaciously apply the library catalogues by themselves.

v.   Library staff should more committed and meticulous in the arrangement of catalogue cards in the catalogue cabinets to enhance

the ease, convenience, and speed of access and application by the students.

vi.   Students should be more deliberate and willing to leverage on the availability of the library catalogues in order to effectively retrieve information in the university libraries for enhanced academic performance.

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