

Postgraduate Students' Awareness and Search Skills for Accessing Online Library Databases in Nasarawa State University, Keffi, Nigeria

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Abstract

Nasarawa State University Library invests so much despite the shrinking budget by subscribing to online databases to ensure that users including postgraduate can access online information databases. However, observation and statistical usage of the online library databases are low. This is evidenced in the three years of statistical usage of ScienceDirect generated by Elsevier. This report is worrisome to stakeholders and thus, calls for a study of this nature. Based on the abovementioned scenario, the study investigates the postgraduate students' awareness and search skills for online library databases. The study population comprised all the postgraduate students registered with the university library, totalling 2,540. A survey research design was adopted for the study. A simple random sampling technique was employed in this study, where 254 postgraduate students, representing 10%, were selected as a sample. A questionnaire was used as the instrument for data collection. The data collected was analyzed using a bar graph. Results show that postgraduate students' awareness of ProQuest, ScienceDirect, Westlaw, Bloomberg Law, and Hinari is very high. Most respondents used the title search technique (253) to access information resources on online databases. There is a need to create and provide access to courses online tutorials on how to locate information quickly through a variety of channels.

Keywords: Awareness, online databases, Search skills, University library, Postgraduate students

Introduction

Information and Communication Technology (ICT) has changed the operations of organizations and institutions, including libraries of all types. Thus, technologies have changed library storage, organization, retrieval, and dissemination of information. One of the changes the ICT brought is the emergence of online information resources. It is a new phenomenon that relies on ICT, mainly the computer and the Internet. The Internet contains a vast amount of information resources. According to International Availability of Scientific Publications-INASP (2011), as cited in Ibrahim (2013), 3.6 billion pages of information are continually growing and changing. The Internet contains four primary sources of information: search engines, subject directories, information gateways, subject information gateways (SBIGs), and online library databases. The online library databases are the main focus of this study.

An online library database is among the primary sources of information on the Internet, as they are the resources that the library subscribes to for its users to access information via its website. Today, online library databases have become the backbone and significant element of library collections of many academic libraries around the globe (Kwafoa et al., 2014). Recently, an online library database has been added to the list of library resources; this is because the use of online resources is expected to broaden the students' skills and knowledge and have access to information that has been uploaded within a few minutes for current literature around the globe and enable researchers to produce quality research and acceptable results (Larson, 2017 and Ngessa, 2018). Those aware of the availability of online library databases have the skills for searching and the necessary infrastructural devices to assess information through them continuously assess extraordinarily esteemed resources at much greater speed, depth, and quantity (Akinola et al., 2018). As important as online resources are, many postgraduate students are unaware of the availability of online library databases and have the skills to search for information for their academic assignments, losing some vital information that does not have their printed equivalent. To buttress this point, Lamb, Howard, and Easey (2014) asserted that most students need to access appropriate literature for their chosen topic, therefore losing the fruits of their research. Accessing inappropriate literature may be due to the lack of information search and retrieval skills, as posited by Olibie, Agu, and Uzoechina (2015), that information retrieval skills affect many research students, thus making them experience an extensive array of problems related to writing and presenting original and quality work. Excellent literature on constructing a good search strategy in online library databases is available (Oliván et al., 2019).

The new digital environment in which many libraries operate requires library users to develop practical online search skills and competencies. These skills are critical for effective and efficient information retrieval from the available databases. They are essential because the information is becoming more voluminous, fragmented into different formats and media, and duplicated in multiple physical locations. Thus requiring users to be digitally literate (Michael, 2012).

The Study Setting

Nasarawa State University was established under the Nasarawa State Law No. 2 of 2001. It is located in Keffi and is about 65 kilometres away from the capital city of Abuja. The aim of establishing the University was to provide an avenue for the young men and women of Nasarawa State to pursue and acquire a University education, which, in the long run, will prepare the graduates and equip them with adequate skills needed for the development of the state and the country at large. Eight (8) faculties are in the University – Administration, Agriculture, Arts, Education, Environmental Sciences, Law, Natural Sciences, and Social Sciences Jimba and Enendu (2021). The university's main organ (library) supports teaching, learning, research, and community service by providing library resources and services. The Nasarawa State University Library currently serves about 15,000 undergraduate and postgraduate students and teaching and non-teaching staff, subscribes to about six databases, and also provides access to some free-based databases for its users. Some fee-based databases currently available include Agora, EBSCOhost, Science Direct, Lexusnexis, Law Pavillion, and JSTOR.

In contrast, the free-based databases include ERIC, BOOKSC, Z-Library, DOAJ, and Library USA. All of these can be accessed through computer systems in the library and website. The service here is provided free for all registered users. The library has 300 Desktops and 2 printers with internet connectivity to facilitate resource access.

Problem Statement

Academic libraries, especially those at universities, have invested significant sums of money over the years to purchase online databases and other electronic resources that would support and provide access to those online databases that are accessible from anywhere at any time. While the significant proliferation of Information and Community Technology has impacted tremendously in the production, availability and usage of this online database in their different formats which are currently considered to be the most significant resources for information transmission in higher education institutions, especially for postgraduates and professors (Edem and Egbe, 2016). Despite this giant stride, there has being declination in the postgraduate students ability to access, use this database for the research work. It is crucial that users make the most of the electronic library resources to satisfy their information demands.

Given that a few university libraries in Nigeria spend a significant portion of their budgets on acquiring appropriate and pertinent electronic resources for their students, it is crucial to look into how these resources are currently being used. It's critical to ascertain whether or not online databases are utilised in order to gauge how widely they are available and used. It will be important to know so that suggestions can be made to improve the use of the electronic resources or to terminate the subscription to those that are not being used. Although while many colleges in Africa have made significant investments in online database with the intention of reaping significant benefits from using online database, online database usage is typically low, especially in resource-constrained countries like Africa (Bentil, 2020).

The research problem revolves around the insufficient awareness and underdeveloped search skills among postgraduate students when accessing online library databases in Nassarawa State University, Keffi, Nigeria. This poses a challenge to their ability to effectively utilize these resources for academic research, prompting the need to investigate and address the gaps in knowledge and skills to enhance the overall research capabilities of postgraduate students.

Objectives of the Study

The study's main objective is to assess postgraduate students' awareness and search skills for online library databases. The specific objectives are:

1. To measure the level of awareness of postgraduate students on the types of library databases available in Nasarawa State University, Keffi
2. To assess the search strategy skills used by postgraduate students in accessing online library databases
3. To identify the challenges faced by the postgraduate students in accessing the online library databases
4. To find out the sources of help the postgraduate students usually refer to overcome the challenges they experience while accessing online library databases

Literature Review

The term online library database is synonymously used as a scholarly database, electronic database, library electronic database, or subscription database. Online library databases are a searchable electronic collection of published journals, magazines, reports, newspapers, dissertations, books, images, conference papers, book reviews, graphics, and multimedia that can be searched to find information not available on Google or other standard public web search engines, (Fulton & McGuinness, 2016; Uzuegbu et al. 2012 as cited in Akinola et al., 2018).

In the academic context, online databases can be general or subject-based in abstracts and full text, direct and indirect; they contain current information because they are updated frequently. They also differ from local databases, held in an individual computer or its attached storage, such as CD ROM. Examples of direct Online library databases include but are not limited to Science Direct, Ebscohost, JSTOR, DOAJ, ERIC, Econbiz, Hinari, LexisNexis, Biomed Central, Medline, ProQuest, Law Pavilion, and the likes. Examples of indirect access databases are. Bibliographic databases, Catalog databases (e.g., library online public access catalogs (OPACs) (Fulton & McGuinness, 2016).

Online library databases provide credible content, less time searching, powerful advanced search capabilities, offer flexibility in the storage of results, and enable access and use of better information to support research, Mohammed, Musa, and Dauda, (2017). Since these online resources offer advanced search capabilities, they

require search skills to be applied to accessing the stored information online. In the view of Ibrahim (2013), online information search strategies are the process, techniques, and ways researchers adopt to locate where information is, its types and formats, and ways of accessing the information. It also involves ways of retrieving, evaluating, and utilization of information. According to Kareem and Erdem (2019), the purposeful and systematic management of all variables can influence the information search.

Awareness is the degree of knowing information sources that provide users with the information they need Angchun (2011). According to Marchionni (1995), people are more likely to consult information sources that they are aware of their availability and have had prior success using for a similar need to satisfy their information needs. The principle of least effort assumes that "information channel use is a function of user awareness." Some studies have found that when "knowledge of a source, its contents and capabilities increase, then the use of that source tends to increase" (Case, 2007). In the same line of thought, Seaman (2002) asserted that a lack of awareness contributes to the low use of library resources and services. Availability of information sources does not translate to accessibility and utilization, which is why Neelameghan (1985) pointed out that the scenario in many libraries in developing countries is underutilization of information resources and services, partly due to inadequacies about user needs and partly due to poor awareness and user education effort. In a study conducted by Ibrahim, Alhassan, and Musa (2018) on the availability and use of government documents by academic staff of Ahmadu Bello University, Zaria, the finding shows that the sources of awareness of academic staff on the availability of government documents in Library complex of Ahmadu Bello University, Zaria were personal experience and friends/colleagues/family members. Obuh and Bozimo (2012) stated that awareness raises consciousness and knowledge about a particular technology and its personal and social benefits. Dulle and Minishi-Majanja (2010) stated that in the open-access environment, awareness had been acknowledged as an essential factor determining the usage of the mode of scholarly communication. Thus, awareness can be directly linked to use. One has to be aware that something exists before thinking of making use of it. This implies that the use of library resources may be affected by the level of awareness.

Online searching skills are essential for library users to obtain the required information while utilizing different databases and search engines. Advanced searching skills make it possible to obtain relevant information without wasting time. According to Leeds University Library (n.d), information search skills will account for all possible search terms, keywords and phrases, truncated and wildcard searches, and Boolean operators. Each database works differently according to its interface, so users of online library databases need to adapt their search strategy to each database. Keyword searches are a good substitute for a subject search when you need to know the standard subject heading. A keyword may substitute for a title or author search when you have an incomplete title or author information. You may also use the Guided Keyword search option to combine search elements and group terms or select indexes or fields to be

searched. Columbia University Library (2021). With text-word or keyword searching, researchers generate their search terms based on their topic and their knowledge of the vocabulary used by the discipline. Text words are often used as a "substitute for a subject search when [the searcher does] not know the standard subject heading DeMars and Perruso (2022). Search strategy design always begins with analyzing the main concepts and choosing terms for each concept. Incorrect identification of the concepts is a severe error that affects search success (Oliván et al., 2019).

Researchers may develop several separate search strategies if their research covers several areas. Effective searching to find relevant literature is a complex skill that is gradually learned. It goes beyond many of the databases students are introduced to in their general education classes and beyond Google or Google Scholar Gusenbauer and Haddaway (2020). Nor is it something that can be mastered in a one-shot information literacy session. It requires more than a basic knowledge of shared databases, each with different interfaces and controlled vocabularies DeMars and Perruso (2022). Fulton and McGuinness (2016) asserted that for users of online library databases to get the very best out of any database, it is essential to have, at a minimum, a basic understanding of how they are organized, as well as an understanding of the search functions that enable users to mine the information effectively and retrieve the best information for the task at hand. The more online resources are acquired and made available to users by libraries, the greater the demand for instruction on accessing and using the resources effectively. Catalano (2013) argued that as students advance in their studies, their need for academic information becomes more sophisticated. Ideally, the same should apply to their searching skills. In the words of Kereem and Erdem (2019), the level of development and use of online information search strategies (OISS) influences the effort, time, and efficiency of the search process; this, in turn, impacts users learning performance.

When a researcher is trying to search for relevant literature from the library databases, he/she may likely encounter a challenge or difficulty, a situation that Oliván Cuenca & Avilés (2019) attributed to the incorrect use of Boolean operators (e.g., using AND instead of OR or vice versa), lack of parentheses (e.g., unmatched parentheses or inappropriately combined terms due to missing parentheses), lack of morphological variations of the terms (e.g., not truncated, truncated but with too much specificity, or syntax errors in truncation).

On the issues of challenges in accessing online library databases, Harazeem, Mshelia, and Bello (2019) discovered that lack of assistance from library personnel, challenges using the subscribed online database, inadequate/lack of skills for searching the needed information, inaccessibility to username and password to some online databases were the significant challenges the Students of University of Maiduguri faced. Similarly, Akinola et al (2018) found that postgraduates at the University of Ibadan faced challenges locating relevant e-resources in the databases, slow internet connectivity, download delay, inadequate infrastructure for accessing electronic resources, and lack of knowledge of search techniques. A related study by Khan, Bhatti, and Khan (2011)

discovered the challenges confronting postgraduate students of Library and Information Science postgraduate students in using electronic resources during online searching. The majority of the respondents were found unaware of advanced searching techniques, unawareness about the use of Boolean logic, unable to select copy and paste text from pdf, lack of knowledge about databases related to subject feel problems in formulating search queries or keywords Akporhonor and Akpojotor (2016). The study of Omeluzoet'al (2016) also shows that lack of training and unreliable internet connectivity were the challenges faced by students in accessing e-resources at the Library of Federal University of Petroleum Resources Effurun, Nigeria.

Methodology

The study was conducted in Nasarawa State, Keffi. Its population is comprised of all the postgraduate students registered with the University Library, totaling 2,540. A survey research design was adopted for the study. The adequate sample size of postgraduate students was drawn from the population using the Krejcie and Morgan (1970) standard scale to determine the sample size. To this end, the simple random sampling technique was adopted in this study, where 254 postgraduate students, representing 10%, were selected as a sample. A questionnaire was used as the instrument for data collection. The data collected was analyzed and presented in simple charts.

Results

Objective 1: Level of awareness of postgraduate students on the types of library databases in Nasarawa State University

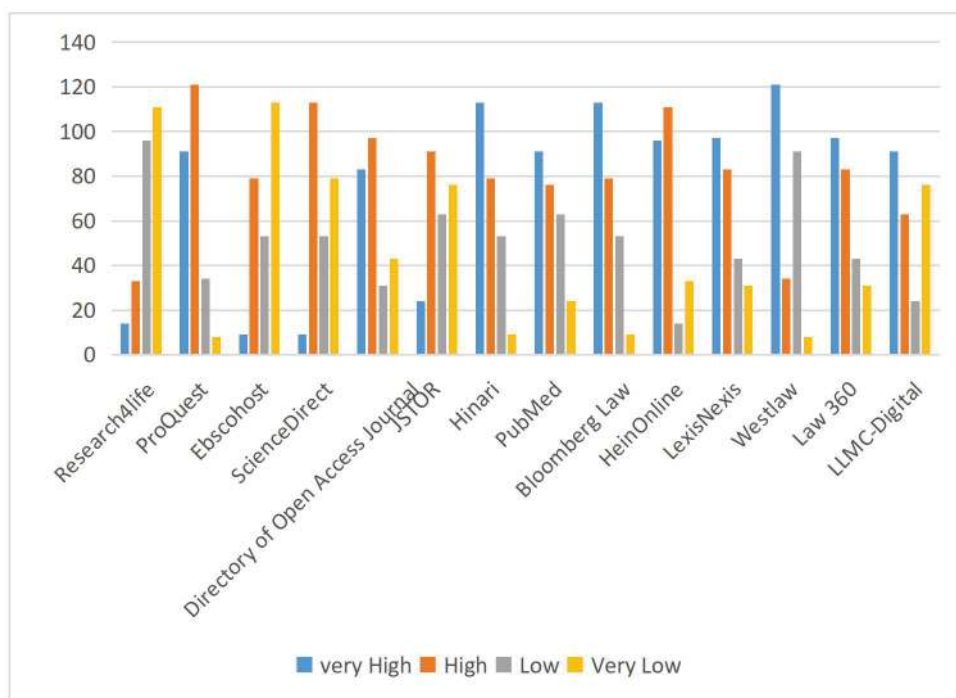


Figure 1: Level of awareness of online databases

The figure shows the level of awareness of the available online database at the Nasarawa State University Keffi. The finding shows that the level of awareness of postgraduate students on ProQuest, ScienceDirect, and Hinari is very high. However, the level of awareness of postgraduate students on Ebscohost is low. Similarly, the level of awareness of postgraduate students on ScienceDirect is very high and high, respectively. The figure also showed that postgraduate students' awareness of the directory of access journals is very high. Also, the figure showed that the level of awareness of postgraduate students of JSTOR, Hinari, PubMed, LLMC-Digital, and Westlaw Bloomberglaw are low, respectively. This finding implies that awareness is critical. Seaman (2002) asserted that lack of awareness contributes to the low use of library resources and services. Availability of information sources does not translate to accessibility and utilization, which is why Neelameghan (1985) pointed out that the scenario in many libraries in developing countries is underutilization of information resources and services, partly due to inadequacies with user needs and partly due to poor awareness and user education effort.

Objective 2: Search strategy skills

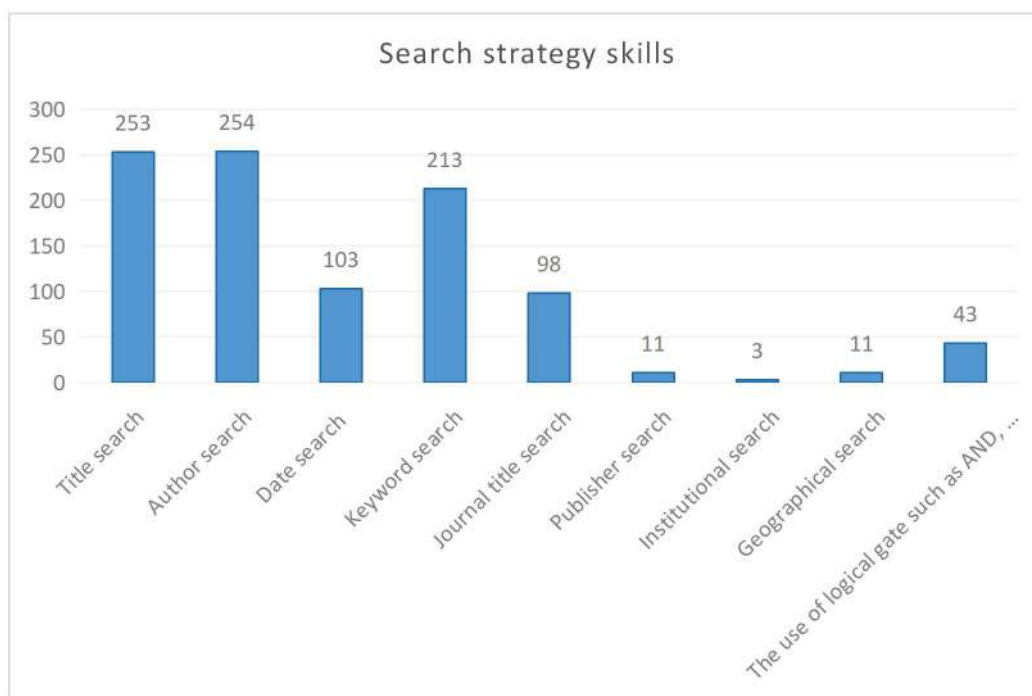


Figure 2: Search strategy

Figure 2 shows the search strategy used by postgraduate students in accessing information resources from online databases in the library. The figure showed that most respondents used the title search technique (253) to access information resources on online databases. Similarly, the figure showed that all the postgraduate students (254) used the author search technique to access online databases. Also, the figure showed that postgraduate students used keyword search techniques (213) in accessing online databases. It was also revealed that a few postgraduate students used date, journal title, publisher, institutional, geographical, and logic gate search techniques to access online library databases. This shows that postgraduate students use more of author and title search techniques in the use of online databases and this implies that they are more familiar with author and titles names of resources in their search as against Roslina and Nur (2014) whom stated that postgraduate students use 'Subject search' mostly in their search strategies in online database and they were very satisfied with the results retrieved.

Objective 3: Challenges faced by postgraduate students in accessing online library databases

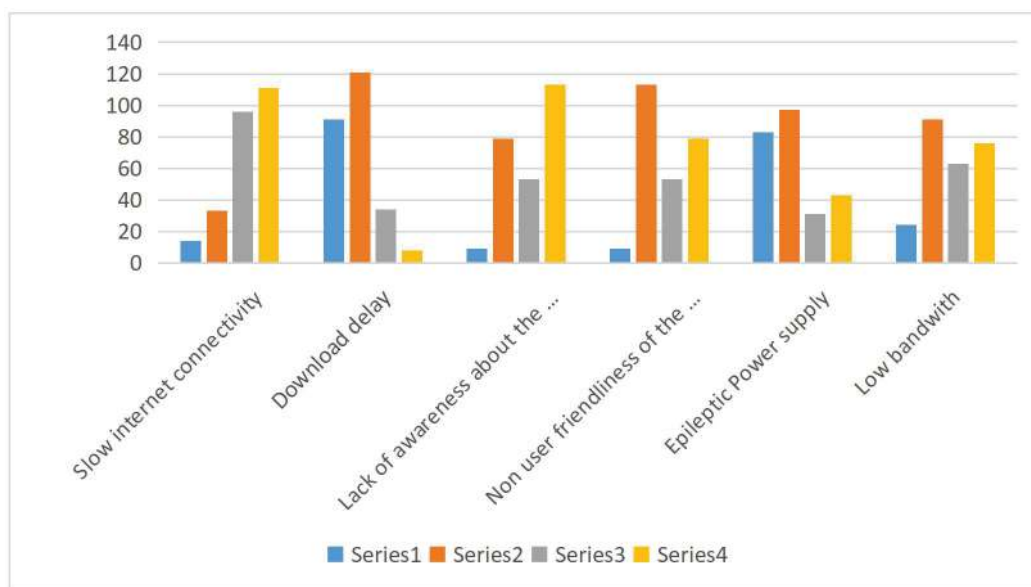


Figure 3: Challenges encountered using online database

Figure 3 depicts the challenges postgraduate students encountered when using online databases in the library. Most of the postgraduate students' challenges include a lack of awareness of the available online databases, low bandwidth, epileptic power supply, and non-user friendliness of the graphical user interface of the databases. This is in agreement with Hamutumwa (2014), Edem and Egbe (2016) where they listed several number of additional common issues with using online databases as follows: slow connectivity speed, "lack of awareness about statutory provision for accessing online databases by the institutions," technological difficulties, insufficient online databases or e-resources, institutions' uncertainty about the sustainability of access, expensive e-resources, and a lack of legal terms. The outcome of this study implies that Nassarawa State Library needs to put more effort into addressing the challenges library users face

Objective 4: Sources of help the postgraduate students refer to overcome the challenges they experience while accessing online library databases

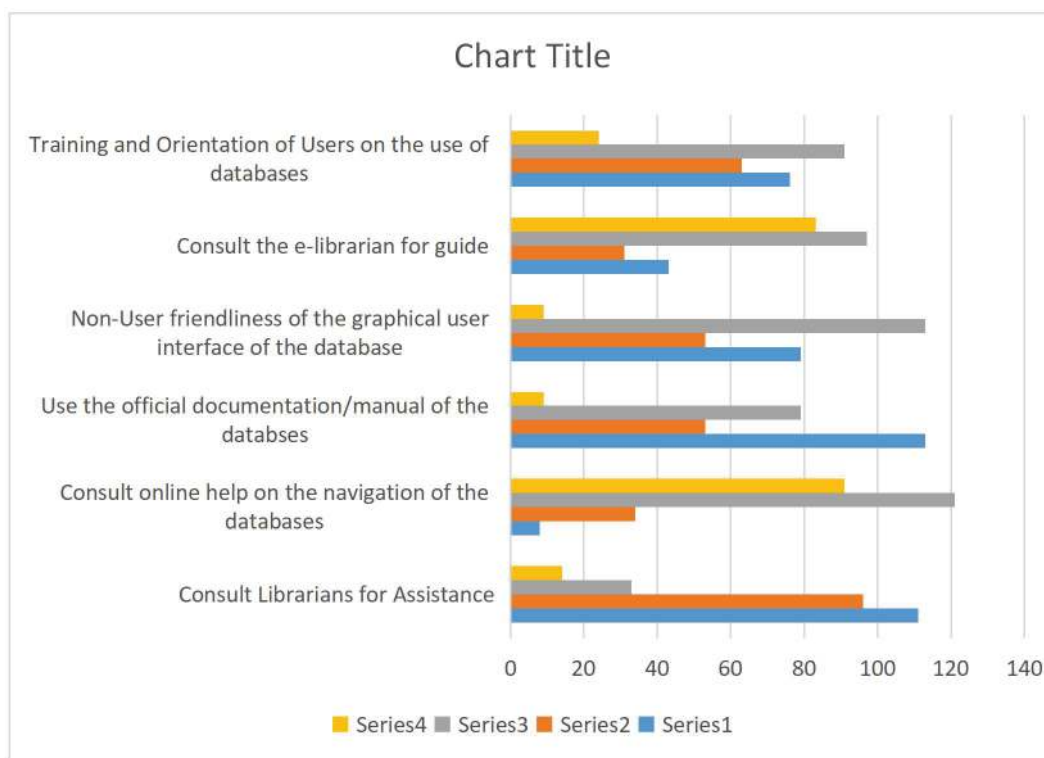


Figure 4: Sources consulted for help

Figure 4 indicates the sources of help postgraduate students refer to overcome the challenges experienced while accessing online databases in the library. The figure showed that postgraduate students consult librarians for assistance. In the same vein, the figure 4 showed that postgraduate students consult the e-librarian for guidance, training, and orientation of users on the use of databases. The implies that Librarian still played significant role in providing support for postgraduate student or act as interface in their quest for information exploration while using the online databases as supported by Babbie (2016), that a range of sources, including friends, library orientation programmes, and academic staff, helped postgraduates learn about the availability of electronic resources. However, the figure showed that postgraduate students do not consult online databases or use the official documentation/manual of the database when they encounter challenges.

Conclusion

The study's core emphasis on postgraduate students centered on research activities. The finding shows that postgraduate students' awareness of ProQuest, ScienceDirect, Westlaw, Bloomberg Law, and Hinari is very high. Most respondents used the title search technique (253) to access information resources in online databases; therefore, it

is pertinent for Nassarawa State University Library Keffi to subscribe to relevant scholarly databases. In the same vein, digital literacy skills must be taught to postgraduate students to maximize the utilization of the subscribed online databases. Based on the study's findings, the researcher concluded that postgraduate students faced numerous challenges accessing online databases.

Recommendation

1. On the level of awareness, the library needs to regularly create awareness through several means such as email, SMS, SDI, newsletter on the various available online databases within the university library. Therefore, library management should provide possible solutions and awareness of available online databases.
2. Library should make effort to educate users and teach students so that all students are aware of how to access online databases off-campus using the various searching skills. Also, postgraduate students without access to computers can be taught how to use their mobile devices to access online resources. Courses ought to be created to teach students how to locate information quickly, faculty librarians must consider a variety of channels.
3. Library should be well funded so as to acquire more and relevant online databases, recruit competent staff especially those that have IT skills, and expand their internet facilities and bandwidth.
4. The management should provide resources like an automated reply system that gives feedbacks to postgraduates' request on the use of online databases whenever the librarian is not available. They should also provide researchers or students with 24/7 help

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