

**PERSONAL FACTORS, INFORMATION LITERACY SKILLS, LIBRARY ANXIETY
AND LIBRARY USE BY UNDERGRADUATES IN FEDERAL UNIVERSITIES IN
NORTH-CENTRAL, NIGERIA**

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ABSTRACT

University libraries are established to meet the information needs of the university communities of which undergraduates constitute a significant portion. However, literature have shown that the level of use of the Nigerian university libraries by the undergraduates is relatively low. Previous studies have focused largely on the pattern and frequency of use of university libraries with little emphasis on the factors that influence undergraduates' library use. This study, therefore, was designed to investigate personal factors (previous library skills, level of awareness of library resources and services), information literacy skills and library anxiety with a view to examine their influence on library use by undergraduates in federal universities in North-central Nigeria.

Competency, Constructivism and Melon Ground theories served as anchor, while descriptive survey of the correlational type was adopted. The five conventional universities in the North-central zone were enumerated, while the homogenous faculties (Science, Social sciences and Arts) were purposively selected. Two departments common to the faculties were purposively selected and five percent of 200 to 400 level undergraduates (making a total of 797 undergraduates). The instruments used were Previous Library Skills ($r=0.85$), Awareness of Library Resources and Services ($r=0.93$), Information Literacy Skills ($r=0.75$), Library Anxiety ($r=0.87$) and Library Use($r=0.95$) scales. Data were analysed using descriptive statistics, Pearson's product moment correlation and Multiple regression at 0.05 level of significance.

Undergraduates' age was 22.72 ± 3.81 years, while majority were males (50.8%). The major purpose of university library use was to study (68.4%) and majority preferred to use university main libraries (66.2%). The level of library resources and services usage was moderate (53.9%), while their level of information literacy skills was higher (69.2%). Eighty-five percent of the undergraduates experienced moderate level of library anxiety. Previous library skills ($r=0.33$), level of awareness of library resources and services ($r=0.24$), information literacy skills ($r =0.20$), type of secondary school attended ($r=0.09$) and academic discipline ($r=0.08$) had positive significant relationships with library use while gender, level of study and library anxiety had none. There was a significant composite influence of personal factors, information literacy skills and library anxiety on library use by the undergraduates ($F_{(3;721)}= 31.12$; adjusted $R^2 =0.13$), accounting for 13.0% of its variance. Previous library skills ($\beta =0.33$), level of awareness of library resources and services ($\beta =0.24$) and library anxiety ($\beta = -0.09$) contributed relatively to library use, while information literacy skills did not.

Previous library skills, level of awareness of library resources and services, information literacy skills and library anxiety determined library use by the undergraduates in federal universities in North-central, Nigeria. Therefore, the university library administrators should create awareness about the importance of library through constant awareness programmes.

Keywords: Library use, Information literacy skills, Library anxiety, Personal factors, Nigerian Federal University libraries

Word count: 437

CERTIFICATION

This thesis titled PERSONAL FACTORS, INFORMATION LITERACY SKILLS, LIBRARY ANXIETY AND LIBRARY USE BY UNDERGRADUATES IN FEDERAL UNIVERSITIES IN NORTH-CENTRAL, NIGERIA prepared and submitted by CHRISTY OLABISI ADEEKO, in partial fulfillment of the requirements for the award of the degree of Doctor of Philosophy (Library, Archival and Information Studies) is hereby accepted.

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DEDICATION

This thesis is dedicated to the Sovereign GOD, the pillar that holds my life, whose grace has sustained me from the beginning to the completion of this study.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Universities are institutions of higher or tertiary education and research, which grant academic degrees in different fields of study and usually responsible for undergraduate and postgraduate training. It is a community of lecturers, students and non-academic staff. The aim of establishing universities is to advance the frontiers of knowledge, generate broader economic growth and increase individual knowledge. Undergraduates are members of a university community admitted for various courses of studies. Undergraduates are in the university because there is a need to increase, advance in knowledge and be vast in their course of study. Hence, accessibility to library materials in different formats becomes a prerequisite to satisfy their information requirements through the use of their university libraries. Quadri, Adetimirin and Idowu (2014), explained that it is imperative for undergraduates to have their information requirements met, which will enhance and promote their academic careers and also satisfy their psychological and social needs. The main objective of founding university libraries is to readily make available appropriate library materials that are adequate, which should be in non-print and print formats. These resources are to help the undergraduates in completing their project, term papers, class assignments and seminar presentation by making provision for adequate and appropriate information and services, which will enhance good academic achievements.

In the face of information explosion, where information available is limitless, it becomes emergently compulsory for undergraduates to acquire knowledge on how to use information critically. Accessing and using information is not just about locating Internet resources but it is essential to acquire necessary skills for seeking information from different types of resources. What is important is not the information found, but to use the information to accomplish the assignments or research is of great importance to the undergraduates. Today's web savvy undergraduates need to make judgments of authority, relevance and accuracy of materials that may not have undergone peer review before being made available on the Internet, and which is blindly used by the undergraduates in their assignments and project works (Hadimani and Rajgoli, 2010).

University libraries are established to meet the information requirements of the university community of which undergraduates constitute a significant population. Nkamnebe, Udem and

Ukamnebe (2014) defined university library as a library which is established, managed and financed by the parent institution towards meeting the research, curriculum and information requirements of its academic community. The main function of the university library is to make provision for sufficient and appropriate information for undergraduates, postgraduates, academic staff and non-academic staff. Ogunmodede, Adio and Odunola (2011) explained that university libraries provide both resources and services for their clientele. The services provided by university libraries include: reference services, lending services, referral services, selective dissemination of information services (SDI), photocopy services and library instruction services. Library information resources are the materials, which assist the university libraries to perform their functions efficiently. These include print (books, periodicals, government publications, graphics, maps and atlas) and non-print, known today as electronic resources.

A university library should be dynamic in providing services and staffed by qualified personnel, who has relevant qualification, proper professional education and knowledge, and good disposition toward meeting the challenges of 21st century university academic environment. The expectation of the undergraduates from any university library is making needed information available without wasting time directly or remotely in any format (Anunobi and Edoke, 2010). Kotso (2010) also stated that a proficient and resourceful university library can meaningfully contribute to the undergraduates' academic development in a wider perspective. Location of use or point of access to information resources in university libraries is not only by physical access. The undergraduates can use the library resources remotely, may not necessarily need to visit the university library physically. Most university libraries in Nigeria now have hybrid resources, that is, print and electronic resources. In the digital age, university library should not only be preoccupied with their traditional roles of making books and other print resources available but provide access to the electronic resources remotely. No matter how a university library is adequately stocked and provide access to both print and e-resources, its use will justify the importance of its establishment.

Maduako (2013) explained that library use is the process of checking the library materials, requesting for help from library personnel and actual locating needed information (print and electronic resources). Library use likewise includes remote use of the library resources, charging and discharging of books, reading personal books, visiting the library or just a meeting place with colleagues. This can be a combination of more than one of the

aforementioned activities or all the activities. The 21st century university libraries have the obligation to make information available and provide effective access to information sources, which makes them different from the traditional libraries, which derived their satisfaction from just being custodians of library materials. The significance of university library to undergraduates in the pursuit of academic excellence is determined by the level of adequate and proficient usage of the library information resources and services. Undergraduates not using their university libraries to enhance their academic achievements undermine the purpose of establishing the university libraries. Abiolu (2010) also defined library use as the ways by which patrons interact with circulation, reference materials, books, journals, equipment and audio-visual materials including electronic resources and library staff. The use that patrons make of a library has been characterised as the ultimate test of its effectiveness. Usage of library materials effectively by the users adds values to the library system, in other words, the more the libraries are used the more they are able to fulfill the purpose of their establishment. Consequently, researches in library use will always be beneficial and cannot be outdated because they are genuine instrument for assessing libraries and their services.

Mason (2010) explained that undergraduates are admitted for different courses as a result their information needs, personal goals, expectations and interest differs. Nonetheless, one trait that will be shared by them is the necessity to use their respective university library for different academic activities such as; project writing, access to reserve readings, completing class assignments, seminar presentations and writing research papers. Undergraduates will often use the library to meet with friends, for a group discussion, especially when examination is approaching or during examinations, or as a noiseless place to take a nap in the afternoon instead of patronising the core library services. The primary purpose for undergraduates visiting the library as stated by Goel, Sarpal, Galhotra and Abhadeep(2012), is for borrowing and reading books. Most of the undergraduates have preference for using the library during examination period. Undergraduates did not make use of the library frequently, frequency of visit to the library by an average undergraduate is less than twice in a week and they spent 2-4 hours daily in the library. Undergraduates use the library to prepare for examination and seminars. Many undergraduates have a preference for reading their personal books, lecture notes or reading textbooks in the library instead of consulting information resources in the library.

Onuoha and Subair (2013) explained that the significance of the library in the advent of technology has been a topic of discussion recently. While the debate rages on within and outside the academia, understanding the concept of library use would assist in preparing for imminent services that could boost library use. Abosede and Ibikunle (2011) note a growing concern over undergraduates' usage of the libraries in Nigerian higher institutions. The growing concern is stemmed from a drastic decline in library use by undergraduates. Yusuf and Iwu (2010) explained that influx of students was observed during examination which means that the students used the library as a seasonal place for reading which may lead to the illusion that library is being used. In the face of all these challenges, Frascotti, Leveseler, Weinarten and Wiegnd (2007) claimed that libraries are re-inventing themselves to conform to international best practices in librarianship which will help them in attracting more patrons. Due to the decline in university library patronage by undergraduates, many university libraries within and outside Nigeria not only provide print information resources but also provide electronic sources and Information and Communication Technology (ICT) used in different areas of services.

Amusa and Iyoro (2013) stated that university libraries in Nigeria are faced with the problems of underutilisation and lethargy. These libraries encountered overwhelming problems creating the attentiveness of accessibility of different information resources and services in the library to their prospective users and ensuring their use. The indifference of the students to the use of available library materials may not be unrelated to the overabundance of available information on the Internet. Except the information needs are compelling most of the students studying for their first degree will not make use of the university library. However, no matter how dependent the undergraduates are on the Internet search engines for information, university libraries remain viable channels through which information are sought. Library use is important to their academic achievements provided the method of teaching adopted in Nigerian universities is not just about taking notes and undergraduates regurgitating the lecturers' notes during a class test or examination. However, there may be reasons why undergraduates may not use their university library maximally, despite all the available resources and services in the university library. Among these possible reasons undergraduates may not use their university libraries are personal factors, information literacy skills and library anxiety.

Personal factors explain the reason different people conduct themselves differently even when seemingly in the same condition, having similar experiences. Personal factors are

characteristics that are inherent in and peculiar to undergraduates and these may influence their use of the university libraries. These personal factors are multifaceted and are not limited to a single variable or discrete entity. The personal factors that may contribute to the undergraduates' level of use of their university library are type of secondary school attended, discipline, gender, age, level of study, previous library experience and level of awareness of library resources and services among many others. Omehia, Obi and Okon (2008) opined that undergraduates' characteristics which are also personal factors have effects on their usage of library materials and services. Age, academic disciplines and level of study are significant determinants of library use by undergraduates.

Daramola (2013) explained that gender difference has been a major phenomenon, which has been the centre of heated public discussion in all areas of life, ranging from political to good governance, health, social, education, religion and economics. In the area of education, gender difference has been documented in relation to teaching practice, skills acquisition, professional developments, classroom interaction and information literacy behaviour among others. Regardless of the range of research on gender matters, substantial transformation in relations to gender equivalence and accessibility to resources is still very inadequate. Research findings in Nigerian university libraries on gender differences in library use are still not many. In the same vein, Moser (2011), described gender as a socially created relationship between male and female and should be dominant in development programmes. Although male and female students are both trained in the same schools nevertheless their experiences differ greatly.

Ajayi and Ogunyemi (2011) stated that as level of study of undergraduates increase, library use increases. Library use by undergraduates increase at every successive year and there is a substantial association between academic level of students and library information resources usage. Substantial variances exist in the degree to which information materials were consulted by undergraduates at different academic levels. Library resources use increased as they move higher in their level of studies, the undergraduates at upper years spent more time in the library compared to their counterparts at lower levels of study (Agboola and Bamigboye, 2011). Undergraduates in higher level of studies tend to utilise the library materials more than those at the lower levels. This could be ascribed to the point that the higher level undergraduates have more academic responsibility and also the years of experience in the university have exposed them to the importance of library use to their academic success (Omehia, Obi and Okon 2008).

Academic disciplines of undergraduates have significant influence on the use of library materials and services. According to Omehia et al, (2008), undergraduates in the Humanities and Social Sciences are regular library users; conversely, undergraduates in the department of Arts recorded a higher frequency of library use compare to their counterparts in the departments of Sciences. Academic disciplines of the undergraduates have been found to influence their utilisation of library materials and services. Bridges (2008) reported that engineering students at the undergraduates'level were almost certainly not using resources at the virtual library when compared to undergraduates enrolled in the College of Liberal Arts. O'Brien and Symons (2005) reported that science undergraduates were least expected to use the academic library's databases compared to undergraduates in the social sciences and humanities. However, undergraduates in the humanities department used books more than undergraduates in other disciplines, while science undergraduates are less likely than humanities, social sciences, and professional studies undergraduates to consult with an academic reference librarian.

Many secondary or high school leavers gained admission into universities annually. There are variances in their library experiences which depend on the location and the type of secondary school they attended, the magnitude and status of the institution, their passion and intelligent quotients levels. The level of preparedness and readiness by most of the undergraduates gaining admission into the university is inadequate for the rigorous academic work. This may stem largely from lack of experience with complex academic libraries, such as university libraries and cannot comprehend how university library works and do not possess the essential skills required for a meaningful research (Mason, 2010).

Researches have revealed that the previous library experience of most undergraduates is that they are technology savvy. They have strong preferences for information on the Internet and books from their individual library instead of patronising their university libraries. Many of the undergraduates lack awareness of electronic resources before gaining admission to the university where they learnt about electronic resources and begin to use them for their academic tasks. Many undergraduates can benefit immensely from different programmes and training made available by their university library to acquire skills on the usage of library resources and services. It was however noted that the students who attended secondary schools that have school library, who have been trained, could access and use information resources effectively (Cribb and Holt, 2012). Most of these undergraduates are technology savvy as they believed that

information from the Internet could meet their information needs. They invariably transfer the erroneous belief to their academic activities in the universities which have negative influence on the usage of their university libraries.

Awareness level of library materials and services is another personal factor that has impacts on the library usage by undergraduates. Undergraduates have affirmed that they lack awareness of resources and services available in their university libraries. Undergraduates are also unaware of academic reference librarians' educational backgrounds and expertise and how reference librarians can render assistance to them directly (Asher, Duke and Green, 2010). Undergraduates lack awareness of the university library's online databases and other online information sources. Consequently, this makes them to pay for access to online journal articles that are freely available to them via their university library (Vondracek, 2007). When undergraduates are acquainted with the available library materials and services this may encourage the undergraduates to use them. Subsequently, once they know the benefits of the library, this would allow them to have a good perception thus further increasing the tendency of future usage of library materials and services (Teoh and Tan, 2011). Even if undergraduates are cognisant of availability of library materials and services available in the library, information literacy skills are the keys to optimum use of these resources. These skills provide undergraduates with a scope to make a great use of existing information sources whenever they want (Munishi and Nagar, 2016).

Cameron, Wise and Lottridge (2007) defined information literacy as a set of skills that enhanced undergraduates with a strong background for academic tasks, excellent job performance; socially responsible, and lifetime learning. Association of College and Research Libraries ACRL (2008) stated that university libraries should collaborate with other lecturers and other stake holders within their academic community to partake in, support, and accomplish their institutions' goals through the teaching of the basic proficiencies of information literacy. The methodical conveyance of instructional programs and services should be scheduled in tandem with general strategic library planning which include the process of library's budget. This kind of planning could equally include planning with other units in the campus to collaboratively provide intended program design. Etim and Nssien (2007) stated that information literacy is a common concept that applies to all levels of education, all field of study and education settings.

It empowers students to have a good grasp of academic content and conduct research effectively, become critical thinker and being able to have control over learning process.

Information literacy skills have been recognised as one of the fundamental literacies of the 21st century. An individual that is information literate should be able to identify, locate evaluate, organise, and effectively use information to solve personal, job related, or comprehensive social matters and difficulties. Undergraduates graduating from the universities can be regarded as the future employees; therefore, it becomes pertinent for undergraduates to be information literate in order for them to become valuable assets to their employers. It is very obvious that undergraduates could not effectively use information due to limitless information available in different format, and they experienced difficulty in learning and assimilating from different methods of learning. Therefore, it is basically necessary for undergraduates to acquire information literacy skills to be able to access, find and use information effectively and independently (Seneviratne and Wickramasinghe, 2010).

Wesleyan University (2017) defined information literacy as an essential proficiency in the quest for information. It comprises of the capacity to recognise when information is required and the ability to competently find, appraise accurately, use efficiently, and obviously understand information in diverse formats. It denotes the capacity to steer the fast emergent information setting, which consist of increasing number of information purveyors in addition to the amount supplied, and contains bulks of professional literature, popular media, libraries, the Internet, and many more. Progressively, information is obtainable in unfiltered formats, putting a doubt on the genuineness, cogency, and dependability. The abundance of information is of minute assistance to those who have no mastery of using it successfully. The importance of information literacy skills is still intangible to most undergraduates. Lack of information literacy skills has compelled some undergraduates to give out their assignments and projects on contracts while some copy and paste the writings of authors and past projects without due acknowledgment or references. In this phase of limitless information, understanding the various information sources and the need to acquire research skills, appraise, use and communicate information is very important (Sasikala and Dhanraju, 2011).

Undergraduates frequently encountered difficulty searching and using information effectively, this may be because they are ignorant or have low information literacy skills. Lack of information literacy skills could be the core causes of undergraduates' information search

problems and library use. Acquisition of basics and advanced information literacy skills is germane to undergraduates' capacity in searching and using information efficiently (Ilogho and Nkika, 2014). In the same vein, Sasikala and Dhanraju (2011) opined that undergraduates overestimate their abilities of accessing information and library research than they are able to prove in practice. Some undergraduates could not ascertain when information is required, how to recognise good information sources, how to find appropriate information, use and apply it efficiently. Asharafi-rizi, Sajad, Rahmani, Bahrami and Papi (2014) asserted that undergraduates need to make use of certain skills for example information literacy skills in order to conduct academic researches. Therefore, most universities hold workshops, to teach students the necessary skills using classical and computer based education methods. One of the foremost aims of these workshops is teaching students the effective use of libraries. However, even after all these workshops, some undergraduates may still feel uncomfortable while using the library. These uncomfortable feeling is referred to as library fear or library anxiety.

Erfanamanesh (2011) defined library anxiety as the fear and undesirable feelings when using or preparing to use the library and also when thinking about using the library. Invariably, library anxiety entails undesirable emotional signs for instance fear, apprehension, insecurity, deficiency of skill and efficacy, lonesomeness and trepidation. Library has been mentioned as one of the sources of anxiety experienced by undergraduates recurrently. Most undergraduates when using library services experienced different levels of adverse feelings of fear, tension and nervousness. Some factors are responsible for unwillingness on the part of the undergraduates to use their university libraries; these factors are the size of the building, the gargantuan bulk of information resources, availability of recent technology in modern-day libraries, deficiency of necessary skills needed for library search and the aloofness of the librarians. Erfanamanesh (2011) explained further that library anxiety is a common thing among library users especially undergraduates. Library anxiety will make the undergraduates not to feel at ease or comfortable in the library as a result they are likely to show unwillingness in using the library while some may eventually leave the library before they could get the needed information. Ansari (2009) also stated that library anxiety is an emotional obstacle to excellent academic achievement among undergraduates that hampers the maximum use of library materials and services. It is a type of academic anxiety that is encountered by most of undergraduates who need to use the library during the course of their study and a common type of anxiety among the undergraduates.

Library anxiety is a psychological barrier that may be encountered by undergraduates when they use the library which was first discovered and studied by Mellon in 1986 analytically. Mellon (1986) stated that once undergraduates encountered challenges of gathering information in the library, many of them show the trait of anxiety and they will not be able to solve the problem rationally and successfully. There are some symptoms of library anxiety exhibited by undergraduates, these are; being flabbergasted by the bigness of the library, inability to conduct meaningful library search and inability to understand how the library is structured go together with the emotion of insufficiency and anxiety of requesting for assistance are also symptoms of library anxiety exhibited by the undergraduates.

There are five elements of library anxiety and these are affective barrier, barrier with staff, comfort with the library, knowledge of the library and mechanical barrier. Affective barrier is the aspect of library anxiety encountered by students when they have erroneous perception about their abilities to conduct research effectively and they also think they lack library skills. Barriers with staff are the aspect of library anxiety that has to do with the relationship between the patrons and the librarians which is the perception of the students about the library personnel. Most often than not the students has the perception that the librarians are not approachable and they are too busy to render any assistance to them. Comfort with the library is that aspect of library anxiety emanating from feelings of being unwanted, vulnerable, and not comfortable within the library settings. Knowledge of the library is when students are unable to use the library effectively, inability to find the information materials needed and how information materials are arranged on the library's shelves. Mechanical barrier is the library anxiety encountered by the students due to emergence and application of new technology in the library (Abusin, Zainab and Adul Karim 2011).

Library anxiety causes fear, tension, lack of confidence, vulnerability, low self-esteem and mental disorder that hamper the usage of library effectively by students studying for bachelor degree. In the university libraries, the continuous flow of information technology is known to be devastating for many undergraduates who are trying to adapt to the changes caused by the emergence and application of information communication technology. These rapid changes have added to the level of library anxiety encountered by the undergraduates (Ansari, 2009).

According to Ajayi and Ogunyemi (2011) a drastic decline in undergraduates' use of university libraries in Nigeria has been a growing concern for librarians and the major stake

holders (Governing Council, Vice Chancellor, University Librarian, other Librarians and Faculty members) in the university. This has become a great concern for the librarians and the major stakeholders in the library because a lot of fund is expended on library resources and services, which could only be justified if the university library is used maximally. Frascotti, et al. (2007) specified that university libraries are fostering information literacy skills by using library materials and services to inspire their patrons to (undergraduates inclusive) make use of the library. Despite this, it has been noted that attitude of undergraduates to library usage and what described the usage, the purposes for library usage, and information used varied, and there may be reasons responsible for low library patronage.

However, the drastic decline in library use in university libraries in Nigeria has not changed (Azogwa, Ugwu and Idoko, 2016). If undergraduates use the library, there is a tendency that their academic performance will increase. They will have broader knowledge about their course of study and be independent learners. For these reasons, there is a need to investigate personal factors, information literacy skills and library anxiety as factors influencing library use of undergraduates in federal universities in North-central, Nigeria. North-central, Nigeria also known as the Middle-Belt region is one of the six geopolitical zones in Nigeria. The zone comprises of six states; Benue, Kogi, Kwara, Nasarawa, Niger and Plateau states and the federal capital territory Abuja. The zone spanned from the west, around the confluence of the River Niger and the River Benue. The zone is rich in natural land features and has many historical and colonial relics.

1.2 Statement of the problem

University libraries are established to support teaching, learning, research and also to meet their institutions' missions and goals. Thus, the stakeholders in the universities libraries expended a lot of funds on library resources and services. The stakeholders aimed to increase knowledge base and improve on national development through the contributory efforts of university libraries in meeting the information needs of the university communities. The investment could be justified, if the level of library use is increased. Nevertheless, literature and observation have indicated that there is underutilisation of library resources and services in most university libraries in Nigeria.

Despite all the advantages associated with the use of university libraries, studies have shown that their use by undergraduates in Nigeria is not as high as expected. The reasons for the

underutilisation of library resources and services may not be unconnected with personal factors of undergraduates, low level of information literacy skills and library anxiety experienced by the undergraduates. Nevertheless, if the likely impediments to library use like personal factors, library anxiety and low information literacy skills are removed or brought to the barest minimum, there may be an increase in library patronage. Against this background, this study examined the influence of personal factors, information literacy skills and library anxiety on library use by undergraduates in federal universities in North-central, Nigeria.

1.3 Objectives of the study

The general objective of this study is to investigate personal factors, information literacy skills and library anxiety as factors influencing library use by undergraduates in the Federal Universities in North-central, Nigeria. The specific objectives are to:

- i. identify personal factors of the undergraduates in the Federal University in North-central, Nigeria;
- ii. determine the purpose of library use by the undergraduates in the Federal Universities in North-central, Nigeria;
- iii. ascertain the preferred location of library use by the undergraduates in the Federal University in North-central, Nigeria;
- iv. determine the frequency of library usage by the undergraduates in the Federal University in North-central, Nigeria;
- v. determine the level of information literacy skills of undergraduates in the Federal University in North-central, Nigeria;
- vi. determine the level of library anxiety experienced by the undergraduates in the Federal University in North-central, Nigeria;
- vii. ascertain the relationship between personal factors of the undergraduates and library use by the undergraduates in the Federal University in North-central, Nigeria;
- viii. ascertain the relationship between information literacy skills of undergraduates and library use by the undergraduates in the Federal University in North-central, Nigeria;
- ix. ascertain the relationship between library anxiety and library use by the undergraduates in the Federal Universities in North-central, Nigeria;
- x. ascertain the relationship between personal factors and information literacy skills of the undergraduates in the Federal Universities in North-central, Nigeria;

- xi. determine the relationship between information literacy skills and library anxiety of undergraduates in the Federal Universities in North-central, Nigeria;
- xii. ascertain the joint influence of personal factors, information literacy skills and library anxiety on library use by the undergraduates in the Federal Universities in North-central, Nigeria and
- xiii. determine the relative contribution of personal factors, information literacy skills and library anxiety on library use by the undergraduates in the Federal Universities in North-central, Nigeria.

1.4 Research questions

In order to achieve the research objectives, the following research questions derived from the general and specific objectives were answered:

1. What are the personal factors of the undergraduates in the Federal Universities in North-central, Nigeria?
2. What is the purpose of library use by the undergraduates in the Federal Universities in North-central, Nigeria?
3. What is the preferred location of library use by the undergraduates in the Federal universities in North-central, Nigeria?
4. What is the frequency of use of library resources and services by the undergraduates in the Federal Universities in North-central, Nigeria?
5. What is the level of information literacy skills of the undergraduates in the Federal Universities in North-central, Nigeria?
6. What is the level of library anxiety experienced by the undergraduates in the Federal Universities in North-central, Nigeria?

1.5 Hypotheses

The following null hypotheses guided the conduct of this study and they were tested at 0.05 level of significance.

1. There is no significant relationship between personal factors and library use by undergraduates in the Federal universities in North-central, Nigeria.
2. There is no significant relationship between information literacy skills and library use by undergraduates in the Federal universities in North-central, Nigeria.

3. There is no significant relationship between library anxiety and library use by undergraduates in the Federal universities in North-central, Nigeria.
4. There is no significant relationship between personal factors and information literacy skills of undergraduates in the Federal universities in North-central, Nigeria.
5. There is no significant relationship between information literacy skills and library anxiety by undergraduates in the Federal universities in North-central, Nigeria.
6. There is no significant composite influence of personal factors, information literacy skills and library anxiety on library use by undergraduates in the Federal universities in North-central, Nigeria.
7. There is no significant relative contribution of personal factors, information literacy skills and library anxiety on library use by undergraduates in the Federal universities in North-central, Nigeria.

1.6 Scope of the study

The study focused on personal factors, information literacy skills and library anxiety as factors influencing library use by undergraduates in the Federal universities in North-central, Nigeria. Nigeria is divided into six-geopolitical zones, but this study only investigated the Federal Universities in the North-central. There are seven federal universities in the North-central geopolitical zone of Nigeria. The study covered personal factors, which include age, gender, academic discipline, gender, level of study, previous library skills and level of awareness of library resources and services as they influenced library use by undergraduates. Furthermore, the study covered the information literacy skills required by undergraduates which are ability to define and articulate information needed, ability to locate information, ability to organise information, ability to communicate and ethically use information and ability to assess and evaluate information as factors influencing library use of undergraduates in Federal universities in North-central, Nigeria.

This study also covered aspects of library anxiety experienced by undergraduates, when using the library. These are affective barrier, barrier with staff, knowledge of the library, mechanical barriers and comfort with the library. The University Library system was studied (main library, faculty library and departmental library). Library use was studied to include purpose of use of library resources and services, frequency of use of library resources and services and location of use of library resources and services. However, 100 level undergraduates

in these Federal universities in North-central were excluded from this study because the researcher considered them not to have garnered experiences and skills required for this type of research.

1.7 Significance of the Study

The findings of this study could be significant and of immense benefits to the following categories of stakeholders, who have a direct or indirect link with the university libraries: undergraduates, librarians and their support staff, library administrators, university administrators and the society at large. This study provided information for librarians on personal factors of undergraduates that can influence their library use. This study provided information for the librarians on the level of information literacy skills and anxiety experienced and level of library usage by the undergraduates in the Federal universities in North-central, Nigeria, which will serve as a baseline for appropriate intervention. It could also assist librarians to make deliberate efforts in planning for the needs and expectations of the undergraduates which will inform them of how to provide and improve their services.

This study could serve as an insight for the library stakeholders on the importance of reducing to the barest minimum, library anxiety experienced by undergraduates and also a pointer to the necessity of attaining information literacy skills by undergraduates. The findings established the fact that, there is a need for education policy makers, library administrators and the university administrators to form policy to design university education curricula in ways that will enable undergraduates to acquire information literacy skills and also place emphasis on collaboration between faculty members and librarians. The result of this study served as a pointer to the undergraduates the importance of library use to their academic success and achievements. It also indicated that information literacy skills are prerequisite to accessing, evaluating and using information effectively and ethically.

This study established the correlation among personal factors, information literacy skills, library anxiety and their influence on library use of undergraduates. The findings of this study can serve as basic intervention in increasing library patronage. The result of this study has indicated the specific factors that create anxiety for undergraduates which will enable librarians to develop more effective instructions that can enable them to identify and understand the level of anxiety of undergraduates. Finally, the result of this study has added to the existing literature in library and information studies. Although there have been several studies on the library use by

undergraduates, there are few literature on personal factors, Information literacy skills and library anxiety as combined factors influencing library use by undergraduates globally and none on federal universities in North-central, Nigeria.

1.8 Operational definition of terms

The under listed terms are defined to depict the contextual meaning in this study with the aim of showing clearness and accuracy:

Information literacy skills: a set of abilities requiring undergraduates to recognise when information is needed, ability to access, evaluate, organise and use information ethically and effectively in federal universities in North-central, Nigeria.

Library anxiety: refers to fear, negative feeling or emotional disposition experience by undergraduates in a library environment in federal universities in North-central, Nigeria.

Library use: the actual usage of available information resources and services available in the university library by undergraduates either remotely or physically in federal universities in North-central, Nigeria.

Location of use: refers to the actual place (university main library, faculty library and departmental library) where undergraduates access library resources and services. This can either be remotely or visit to the library to use the library resources and services. It can also be referred to as point of access or access point in federal universities in North-central, Nigeria.

Personal factors: refer to traits inherent in and peculiar to undergraduates such as age, type of secondary school attended, academic discipline, gender, level of study, level of awareness of library resources and services in federal universities in North-central, Nigeria.

Undergraduates: are the set of students in the university studying for their bachelor degree in federal universities in North-central, Nigeria

University library: refers to a library established to meet the information needs of the university community. It is also a type of academic library in federal universities in North-central, Nigeria.

CHAPTER TWO LITERATURE REVIEW

2.1 Introduction

This chapter reviewed literature pertinent to the study under the following headings:

- 2.2 Information literacy skills of undergraduates
- 2.3 Library anxiety of undergraduates
- 2.4 Library use by undergraduates
- 2.5 Personal factors and library use by undergraduates
- 2.6 Information literacy skills and library use by undergraduates
- 2.7 Information literacy skills and library anxiety of undergraduates
- 2.8 Library anxiety and library use by undergraduates
- 2.9 Personal factors and library anxiety of undergraduates
- 2.10 Information literacy skills and personal factors of undergraduates
- 2.11 Theoretical framework
- 2.12 Conceptual model
- 2.13 Appraisal of the literature reviewed

2.2 Information literacy skills of undergraduates

The basic requirements for undergraduates in order to use information effectively and ethically are Information literacy skills. Rafique(2014) stated that after the industrial revolution information insurgency and inquisitiveness is the main occurrence in the 21st century. Individuals including undergraduates have many opportunities to acquire information. Information literacy is basically required, because of availability of numerous sources of information and different techniques that can be used to access the needed information. Moreover, the supply of information is unfiltered which implies that the correctness and appropriateness of web pages cannot be ascertained. Consequently, these may cause legal and moral issues in the course of evaluating, understanding and information use. Information users continuously encounter difficulties when choosing and using information from various sources of information. Availability of comprehensive information and application of technology do not automatically imbue people with the basic skills and aptitude to effectively use information.

Shoeb (2011) defined information literacy skills as the capacities which aid persons to know when information is required and the capability to find, appraise and efficiently use the required information. Alexanderson and Limberg (2006) defined information literacy skills as the capability to search for and efficiently and successfully use information at different

circumstances. The conception or idea of information literacy has progressed equivalent to information technology advancement which was accepted as the major issue within library studies discipline and generally in education. Information literacy can also be regarded as the complete abilities of people within a society that is democratic that are able to make correct choices on the premise of critically evaluating information from different sources.

Ilogho and Nkiko (2014) did a research on information literacy search skills of undergraduates in Ogun state, Nigeria and the findings showed that a great number of the undergraduates had little understanding of information literacy skills and could not identify information from various information sources. However, the different programmes on information literacy offered by the institution make it a necessity for the undergraduates to have hands-on skills. The researchers drew the conclusion from their findings that comprehensive information literacy skills is germane to acquisition of knowledge in the 21st century and suggested that information literacy skills should remain incorporated into high schools and higher institutions' syllabuses. The researcher therefore asserted that there is a necessity to have an enriched and unceasing library education for patrons which can ultimately enable them to be adequately accustomed with different sources of information.

Hosein (2006) considered library education as an aspect of information literacy at the University of West Indies in Trinidad. The researcher stated that the University recognising the significance of information literacy made a decision to advance at the university an all-inclusive programme on information literacy. Hosein (2006) further stated that at the St Augustine Campus of the University a central mission of developing lifelong learners by ascertaining that students are highly cerebral in thinking critically and cognitively and in the same way are able to constructively build a framework necessary for acquiring knowledge and the pedagogy of learning.

Anafo and Filson (2014) did a research on encouraging information literacy amongst undergraduates of Ahesi University in Ghana. The findings from their research indicated that the preponderance of the undergraduates have low skills in searching the library catalogue for information. Undergraduates were not able to distinguish between bibliographic database and library catalogue and, also, the findings emphasised that a few number of undergraduates showed deficiency in information literacy skills. The findings revealed that undergraduates could not identify the citation to a journal article and were not able to quote a source and evaluate

information originating from the Internet. The results on concept of identification, the authors (Anafo and Filson, 2014) deduced that about 60% of the undergraduates could not identify important phrases or words, even if their assignments were simplified by giving them different options they can choose the correct answer from. It was therefore concluded by the researchers that preponderance of the undergraduates were unable to access appropriate information due to the fact that they have deficiency in information literacy skills relating to concept of identifying, searching techniques, information sources, accurate usage of library catalogue and moral and lawful usage of information. Concerning most of the undergraduates, teaching and learning process could be affected negatively based on their level of deficiencies as revealed by the findings.

Haglund and Herron (2008) reviewed Gross and Latham (2007) work on undergraduates attaining information literacy skills and asserted that there is a variance between the level of information literacy skills of lower-performing and higher-performing entry level students. However, the complete study confirmed that most undergraduates have the tendency to be information illiterate which could be close to average at the point of gaining admission into higher institutions. Relationship exists between marks obtained in an information literacy test and undergraduates' evaluations of the skills they have in information literacy. Undergraduates that showed low-level skills have a wrong perception about their level in information literacy skills while those who showed high competency are likely to underrate themselves. A study done by Bailey, Derbyshire, Harding, Middleton, Rayson and Syson (2007) to evaluate the effect of 4 sequences of information skills training done amongst diploma students of nursing at North Umbria University, UK, the results showed that all students who participated in minimum of one training upgraded their academic results and subsequently improve in their assignment apart from snowballing their self-assurance levels and information literacy. The result further revealed that there was no record of marks below 40 percent, about 4 participants scored seventy percent, while about fifteen participants scored above fifty percent, however, it is worth knowing that just one student who participated fully in all the four trainings showed evidence of improvement.

Salleh, Halim, Yaacob and Yusoff (2011) carried out a research in a Malaysian public university on the influence of information literacy on the undergraduates' academic achievements and opined that information literacy is a requirement that could be used in equipping the students in colleges and universities to efficiently acquire knowledge, to cultivate

the critical thinking and to enhance the production of an excellent course materials related to their academic disciplines. As soon as they get admission to higher institution, they are trained during the library orientation the rudiment information literacy course. The training could be done on continuous bases and this course should be held on a constant basis by the faculty members to ensure undergraduates are very much good in search skills, evaluation and utilising library information sources that are trustworthy. Recent development of scholastic organisation mainly focused on assessing the students' academic achievements. This explain the reason information literacy is obligatory in the way the students can prove their capacities by application of appropriate skills and knowledge to accomplish extraordinary attainments of academic standards in accomplishing a good score which can meet the standard of the higher institutions and the labour market.

Guise, Goosney, Gordon and Pretty (2007) reviewed 100level undergraduates' research skills at University of Toronto, Scarborough and found that the undergraduates were not adequately prepared to accomplish the 100level requirements for research because they could not use the basic skills in information literacy. Similarly, Russell (2009) identified major differences in information proficiencies that students exhibited during the transition from secondary schools to higher institutions. According to the researcher, undergraduates did not understand the scholastic information content which has gone through proper peer review. They also encounter problem in the area of evaluation of information retrieval, and when they are presented with different medium of information and search techniques, they are prone to likely to use Google which they conversant with. Similarly, Rowland (2009) also asserted that undergraduates preferred Google to other search methods because of its simplicity and they are conversant with this method of search and this resulted in low skills on the part of the undergraduates not been able to use search techniques that are advanced in nature.

Ellis and Salisbury (2004) conducted a survey using entry level students at the Faculty of Art, University of Melbourne, Australia and found that undergraduates start institution of higher education with inadequate information literacy skills. The results showed that undergraduates were deficient in information literacy skills before coming to the universities that are proportionate to their present level of academic achievements. Undergraduates also demonstrated that they possessed minute skills that are not adequate for library use and doing research work independently. However, Google use is greatly preferred by the undergraduates is

not unexpected as this replicates the findings of many researchers that demonstrated that preponderance of undergraduates start their search by the use of search engines for example Google.

Ukpebor and Emojorho (2012) did a research on the information literacy skills of undergraduates in Edo state, Nigeria, and the results showed that undergraduates possessed a fair knowledge of information literacy skills from high schools up to the time of gaining admission into the university. Google search was discovered to be the most method used by the undergraduates in searching for the information needed, which implies, they are most familiar with Google. The newly admitted students have low capacity in using information literacy skills while a great number of them cannot limit search terms and search the OPAC or manual catalogue. Conway (2011) did a comparative study on information literacy skills of different categories of students at the Curtin University, Australia. The findings showed that a considerable number of the respondents have difficulty in applying information literacy skills, especially when using old-fashioned library tools, for example card catalogue.

Shoeb (2011) evaluated the information literacy proficiency of entry level students at Business department in a private university in Bangladesh and concluded that the undergraduates need more skills to find answer to problems that are information-related. It was observed by the researcher that majority of the undergraduates affirmed that they are cognizant with information literacy and they thought they are efficient in information literacy skills before responding to the questionnaire. However, the competency results revealed that about a quarter of them answered the questions correctly. At the end of the evaluation, many undergraduates understood the necessity of information literacy training as a prerequisite in solving problems that are related to information. Befus and Byrne (2011) did a research in a summer residential program at Wayne States University, Detroit, USA where the undergraduates were asked to undertake a restructured information literacy lesson and answered questions that evaluated their knowledge and self-assurance. The findings revealed that the undergraduates could not pass any of the five modules nor meet the performance expectation. The undergraduates demonstrated their capacity in identifying plagiarism but deficient in finding articles for a topic.

Daugherty and Russo (2011) assessed the lifelong impacts of a separate information literacy training of the undergraduates at Louisiana State University, USA, who took part in one unit compulsory information literacy training and also finished a web-based assessment with

twenty eight questions. The findings revealed that Database searching and some other advance search methods were the skills that students indicated they could use in additional courses. However, a minute number of the undergraduates (3%) indicated that they will continually use the skills of information evaluation. A considerable number of the undergraduates (2/3) could not use the skills acquired from the information literacy training for seeking for information that are not related to academic. The undergraduates who finished the training of their own accord indicated an advanced use of the information literacy skills compare to those who were mandated to offer the course for their departmental courses.

Saunders et al (2015) did a research on information behavior and information literacy skills of students of Library and Information studies in 18 countries all over the globe. The results showed that undergraduates are assertive in their general searching abilities, but they found it difficult in getting started on research assignments, which also include the abilities to define and narrow down topics. The undergraduates rely mostly on search engines, and show anxiety about their capability to assess information from the Web and also indicated that they cannot determine what constitutes academic integrity or plagiarism and did not know when to cite sources. The findings deduced that there is a doubt whether LIS students are more competent than their colleagues in other fields of study in locating, searching, evaluating and use of information resources. Acquiring necessary information literacy skills will add value to the way they seek and search for information and eventually as professional librarians. Saunders et al (2015) asserted that the findings have consequences for lecturers in LIS, who must ensure that undergraduates learn the essential level of mastery of basic information literacy skills. It is imperative for faculty to set achievable objectives for learning and also examine students' progress toward these objectives and this can be achieved through assignments, tests, and discussions. Additional, lecturers must cogitate the important aspects of information literacy curriculum to be emphasized, for example, lecturers should laid emphasis on teaching citation and plagiarism which may not be previously taught specifically and directly, even though the students would be given homework that integrated information literacy skills. Recommendation were made by the researchers that students might need more explicit teaching on how to avoid plagiarism.

Baro and Zuwokemefa (2011) surveyed the different information literacy skills used in university libraries in Nigeria. The findings revealed that libraries in the Nigerian university

engaged in different information literacy practices which vary from sessions of library instructions to introduction courses on information skills, usage of library, techniques of database search and bibliographic exercise. The findings identified some factors inhibiting the efforts of library professionals in supporting and making available information literacy courses in libraries in Nigerian universities. These factors are that undergraduates, faculty members, managements, insufficient personnel did not have interest to handle information literacy instructions, inadequate facilities, rejection of online teaching of information literacy and dearth of policy on information literacy were acknowledged. Kumar (2010) examined the undergraduates and academic staff of departments of management, education, engineering and pharmacology at Rohtak, Haryana, India. The findings revealed that just about 46.2% of the faculty, 38.1% of the undergraduates and 33.3% of the postgraduate students have the understanding of information literacy concept. An average 52.9% of the respondents could use truncation since they were less aware of the search tools and methods. A fair number of them (30.7%) could use keyword search properly while a minute number (22.5%) understood Boolean operators. Generally, the participants indicated they were unaware of the legal usage of information while very few of them understood the concept of plagiarism (10%).

Johnton, Partridge and Hughes (2014) examined the information literacy experience of foreign student at Queensland University of Technology, Brisbane, Australia which they tagged EFL. The study outcomes showed that EFL students practiced information literacy in four diverse methods which are qualitative; knowledge, language, quality and process. Furthermore, they have different experiences of information and knowledge and used different methods of learning in accessing, reading, organising, translating and using information. This research also revealed that as foreign students, who could not speak English, encounter some difficulties in relation to their dialect that affected the experience of how to access, read, understand and translate information. The problems encountered encompassed; problems of how to read texts that are targeted at students from western countries and comprise information that might not necessarily be applicable to this group of students. Selecting information resources of English content for reading; taking a superficial method to reading, as well as scanning and skimming abstracts and texts, some of these problems students encountered when reading text of English contents. The findings also revealed that the students encountered problems on how to access information both in Arabic which is their indigenous language, access information documented

in indigenous content and recognising word. EFL students have preference for interpreting from English to their indigenous dialect and encountered several obstacles in converting information from their dialect to English language.

Taylor and Dalal (2014) conducted a survey at Rider University, Lawrenceville, New Jersey, USA to define the effectiveness information literacy training in making ready undergraduates for unassisted use of profit-making search engines and the Web search. The result showed that Google search engine was most widely used source for academic research, although the undergraduates indicated that they also use other sources. The undergraduates had a high confidence in the results shown out by the search engines, however, majority of the respondents (60%) assumed that pages shown out by the search engines usually contain correct information. Nearly an average number (45%) of the respondents specified they cannot determine the writer of pages from the Web and identifying the writer of pages on the Web seemed to be challenging. The result of the research further revealed that appraisal of the influential physiognomies or features of a source were problematic to the respondents; with about one-fourth indicating they cannot ascertain the influential physiognomies of a Web domain. About one-fourth indicated they could not comprehend the concept in the context. The result also showed that identifying the qualifications of the author were difficult while most of them (63%) indicated they did not have an understanding that author qualifications could be evaluated. Also, a quarter (25%) of the undergraduates did not believe the possibility of ascertaining if a particular Web page is objective and more than average number (62%) made use the Universal Resources Locator and determining how objective a Website is.

Diehm and Lupton (2014) reported on a research examining undergraduates' experiences in acquiring information literacy skills at an Australian University. The findings revealed that undergraduates acquired information literacy in 6 different methods: how to sought for information; ways of processing information; creating products through information use; ways of increasing individual knowledge capacity through information use; increasing subject knowledge using information; and use of information for personal development and to contribute to others. The researchers concluded their report by stating that having a good grasp of the intricacy of the of information literacy concept, and the various methods students experience learning information literacy, assists lecturers and library professionals to plan the curriculum and

information literacy instructions that is tailored towards efficient methods of how to discover and usage of information ethically and critically.

Dubicki (2013) conducted a survey at eight New Jersey higher educational institutions on Faculty opinions of students' information literacy skills by asking academic staff to evaluate their students' proficiency in the five ACRL skills respectively on a four point scale which ranges between outstanding to not very outstanding, with some being neutral. Generally, academic staff evaluated students' proficiency with information literacy skills most often in the good or bad classes. The findings revealed that the best skill that students possessed, was the ability to identify and address the information need, with a considerable number of faculty (41%) rating the undergraduates' competency level as excellent or good. However, few of the respondents (27%) were graded as very outstanding in their capacity to use correct information.

In a recent study by Olaniyi and Oyewole (2018), there was favourable disposition to performance expectancy of electronic information resources by students in Ajayi Crowther University, Oyo State, Nigeria. The authors studied the undergraduates' effort expectancy as a correlate of electronic information resources use in Ajayi Crowther University. The study's population was five thousand, six hundred and sixty-three of the undergraduates of the university. The study relied on survey design, while quantitative method was adopted through questionnaire distribution as research instrument. The result showed that there were substantial number of the undergraduates who stated that electronic news and electronic encyclopedia constituted the most accessed materials among them. It was revealed further that a positive and significant relationship exist amongst e-resources use and effort expectancy. Recommendation made by the researchers among others was that there should be the introduction of digital information literacy programmes by librarians to students to appropriately sustain the positive relationship between effort expectancy and usage of e-resources by students.

According to Oluwaseye and Oyetola (2018), information literacy skills of private secondary school students in Ibadan, Nigeria was high. The study focused on ascertaining the impact of information literacy skills on social media utilisation by students in selected private secondary schools in Ibadan, Nigeria. The study employed survey design of quantitative method. Questionnaire was used as the research instrument which was developed by the researchers and was administered to 210 final year science students in upper classes. The findings showed that the students were aware of Facebook, Twitter, Google+, Flickr and YouTube. The students use

these social media tools to uploading and viewing photographs and pictures, also to access information on national developments and politics as well as posting comments on friends' profile. The study, in addition, reported that the students equally encounter challenges such as shifting attention and disengagement from school academic activities.

In a study on evaluation of search engines use in a higher institution by Ozonuwe, Nwaogu, Ifijeh and Fagbohun (2018), the study evaluated the use of internet search engines among students and faculty members of Crawford University, Igbesa, Ogun State, Nigeria. Using questionnaire as a research instrument, a survey was conducted comprising of two hundred and ninety thousand respondents covering students and staff. Awareness of online resources and Internet search engines was found to be high among the respondents. There was indication from the results that both students and faculty members have skills in using Boolean search operators, the students relied majorly on searching through search engines such as Google, yahoo and MSN while in most cases, searches were very simple as most of them were unaware of the advanced search platforms of the aforementioned platforms. The study equally reported that there were challenges such as Internet bandwidth low rate, information overload in terms of internet resources and inadequate search skills. It was recommended in the study that librarians and various libraries should not see the Internet as threat to their job but as a compliment which will improve their work and complementary to their jobs.

It was affirmed that information literacy skills for academic activities among students is generally low. Adeniran and Onuoha (2018) studied information literacy skills' (ILS) influence on postgraduate students' usage of e-resources of university libraries in private institutions in Southwest, Nigeria. The study relied on survey design, while the instrument was questionnaire which was administered to 550 postgraduate students. The outcomes revealed that a substantial relationship was found between ILS and utilisation of e-resources. It was established that access to ICT facilities is promoted through its utilisation as it paves way for creation of more access. It was therefore recommended that private universities management have a duty to make sure that there is an unceasing running of e-resources with suitable ICT tools to enable the efficient use.

2.3 Library anxiety of undergraduates

Library anxiety could be expressed as the fear and negative feelings experienced by individuals while using the library, preparing and even thinking about using the library. Library anxiety entails any adverse emotional warning signs, for example, fright, uneasiness, indecision, negative perceptions of one's capability and skills, lonesomeness and trepidation (Erfanmanesh 2011). Library anxiety has raised the inquisitiveness of many researchers which has caused them to carry out many empirical researches on this phenomenon. Bostick (1992) laid the foundation for other researchers through multidimensional conceptualisation and operationalisation of the library anxiety phenomenon after the initial findings by Mellon (1986).

Mellon (1986) set the groundwork for discovering the influence of the anxiety encountered by students relating to the use of library. The study revealed the main causes of anxiety encountered by the students which relates to sense of feeling lost and the root cause of the negative feeling found its pedigrees in one of the four factors. These factors are; the dimension of the library, deficiency in knowledge of where information sources were situated, how to initiate a research and knowing what to do. According to the previous researches, there are anxiety that are related to academic, experienced by different categories of students but library anxiety is distinct from all these academic anxieties which has its origins in a doctoral thesis by Mellon (1986). Nonetheless, many of the quantifiable experimental study could be attributed to Jiao and Onwuegbuzie (1997, 1999, 2004,); Jiao, Onwuegbuzie and Bostick (2006) and Jiao, Onwuegbuzie and Lichtenstein (1996) who in their capacity as researchers have contributed immensely to the existing literature on this phenomenon.

Development of the Library Anxiety Scale instruments (LAS) was by Bostick (1992), who made known that there are five constructs of library anxiety which are mechanical barriers, affective barriers, comfort with the library barriers with staff, and knowledge of the library. The questionnaire was administered to the students before the library orientation on how to use the library and after they have gone through teachings on library orientation which were the pre-test and the post-test assessment. This was done to determine if there is any occurrence of significant change in the level of library anxiety experienced by the students before the pre-test and the post-test. The result obtained from both tests revealed that all the elements proposed by Mellon (1986) were encountered by the students.

Seyyed Hosseini, Khosravi and Jahromi (2014) examined the association that exist between emotional intelligence and library anxiety of undergraduates in two universities at Iran and stated that a major difficulty encountered in the field of library and information studies is the library anxiety. Barrier with library personnel is a major reason for library users to affirm that they are not contented with the services provided by the library as observed by some researchers. There is an erroneous belief by some students who had experienced certain degree of library anxiety that their counterparts are more competent than them in using the library and as a result of this, these set of students do not have confidence to ask questions at the helpdesk or reference section. These students were not observant enough with the library signs and guides which hamper their research processes. Collins and Veal (2004) opined that students who experienced library anxiety will encounter the excessive difficulties during information-seeking process. So, if students are aware that library anxiety exist and they are taught how to overcome it through library instructions many of the library users will experience little or no library anxiety within the library environment.

Carlile (2007) did a review of literature on the effects of library anxiety on reference services and the major review was on; the meaning of library anxiety, how to quantify it, the effects on students and ways of decreasing the adverse effects on students. When the patrons understand the meaning of library anxiety and how to overcome it with the assistance of the Reference librarians, then the library anxiety can be overcome by the students. Although, there are contrast opinions about the presence and occurrence of library anxiety and ways of measuring it accurately, and different views on its causes and impact, there is a consensus by the previous researchers that it is essential to study library anxiety. Researchers have acknowledged that different category of students may encounter library anxiety. The bases of these adverse feelings may come from different factors, and that some negative attitudes may also contribute to the occurrence of library anxiety. The impact of different types of library instructions have been stated, signifying that when students are provided with basic skills and knowledge, the resulting effect is that they will gain mastery in the use of library and be self-confident in their abilities which will ultimately reduce level of library anxiety.

In the same veins, Ansari (2009) explored the association between library anxiety in a Malaysian academic library environment and the supposed size of library collection of books that could add to increase or decrease library anxiety level. The findings revealed that library

anxiety or the negative feeling encountered in a library environment, with mental, emotional, and behavioural consequences occurs among the undergraduates. Undergraduates, who thought library collection as enormous, have more difficulty with nervousness and do not really feel comfortable in the library. The findings further showed that undergraduates exhibited substantial level of library anxiety on one element of library anxiety or another. The seeming size of the library collection is an exceptional precursor revealed by the study that indicated correlation with three sub-scales of library anxiety, that is, barriers with staff, affective barriers, and comfort with library services. The size of the library collection should be proportional to the size of the library building, which means the bigness of the library added to the level of library anxiety encountered by the patrons. The negative perception the students had about the size of the library and its collection before they begin their research process or information process had negative effect on their abilities to effectively use the library.

The findings of the research done by Ansari (2009) further revealed that undergraduates who thought library collection is enormous encountered high anxiety and feel less comfortable within the library environment and encounter barriers with library staff. Undergraduates' perception of the size of library collection was a significant predictor of library anxiety encountered by the undergraduates. Library anxiety creates difficulty for the fact that searching needs extra time and proficiency, it could disorganised students and makes them feel unease.

Erfanmanesh (2011) conducted a research on the library anxiety of students of Education and Psychology school at Shrazi University, Iran using a multidimensional library anxiety scale. The finding indicated the most students experienced some levels library anxiety to the degree that many of the respondents (79%) encountered a moderate to high level of library anxiety. On the premise that it is essential for the students to use library information materials and services for subject collection, information acquirement, review of literature required for project and assignment, library anxiety could have negative influence on students' academic achievements. Accessibility to library services, library literateness, and accessibility to information materials are factors that reveal most, the effects library anxiety has on utilisation of resources and services of the library by the students. It is therefore imperative that more emphasis should put on library instructions, library literacy skills, and information literacy to college and undergraduates and postgraduate students which could probably reduce library anxiety experienced by the students.

Similarly, Mohundro (1999) and Battle (2004) also emphasised the efficacy of library instructions on reducing library anxiety. Teaching of library literacy skills is very essential and important to postgraduate students in the humanities because they have encountered very library anxiety at a very high level. Even though the postgraduate students could have used their university library at undergraduate level, they do not have the basic requirement for using their university library until they begin their postgraduate study.

In the same vein, one of the factors causing stress as considered by (Jiao and Onwuegbuzie, (1997), Ben Omran,(2001) and Kohrman, (2002) in their study is the use of mechanical equipment in libraries which was described as a factor causing the library anxiety is more than average level in about 13% of students. Recently upsurge in the usage of computer, printer, scanner and other mechanical equipment have decreased the library anxiety generated from the use of technology in the library as most of the students are technology savvy. Bostick (1992) considered the use of computer in libraries as one of the factors causing stress, however, this opinion by Bostick (1992) is no longer valid because of the emergence and application of ICT to the library operations. Among the eight investigated factors, students experienced lowest anxiety about the size the library building, but if the library provides conveniences and good services, for example transfer services, relaxation places for eating, environmentally friendly settings, for example, comfortable atmosphere, good lightening, aesthetic beauty, suitable and applicable usage of images, charts and atlases, ciphers, and guidelines could help to reduce the anxiety (Ben Omran, 2001 and VanKampen, 2004).

At variant with the results of previous researches, Jiao and Onwuegbuzie, 1997, Cleveland, 2004 asserted that the relationship between library users and library staff was not a substantial cause of library anxiety experienced by the library users. Generally, librarians that work in academic settings should use a suitable method to reduce library anxiety by helping the patrons. Mellon (1986) also contends that treating all library users equally irrespective of religious belief, either male or female aptitudes or skills, and other characteristics, could aid in reducing library anxiety in patrons. The use of precise library vocabulary when assisting patrons could be helpful in growing confidence and reducing library anxiety. Examining the degree of library anxiety experienced by the students from various academic disciplines showed that the LIS students encounter the lowermost level of library anxiety compare to their counterparts in other academic disciplines. These results could be inferred because of the nature of their courses

which has exposed them to the library, library skills, and high usage of library materials and services.

Ben Omran (2001) and Kohrman,(2002) concluded from the findings of their research that the students of Special Education and Physical Education have experienced maximum levels of library anxiety. The authors recommended that Professors, administrators of the college and library should make available facilities that can help in reducing library anxieties of the students from the two departments. Comparative study of library anxiety and gender of students indicates a substantial variance, male students mostly experienced greater levels of library anxiety than the female students. Understanding the cause of the substantial variance indicated in the study requires further investigation. Subsequently many of the respondents were not conversant with or aware of the library anxiety phenomenon, it is therefore important that library users are cognizant of the library anxiety phenomenon which could ensure that patrons are assisted to overcome the adverse effect of library anxiety.

Malvasi, Rudowsky and Valencia (2010) studied three traditional types of instructions which are; one-on-one instruction, online tutorial, and group instruction which could alleviate the library anxiety encountered by the newly admitted students. There are two groups compared, these are intervention group and the control group, however, the latter did not take part in any of the instructions which took place throughout the time of test. The findings revealed that group instructions reduced to the barest minimum the anxiety among students with high anxiety levels. The online tutorial was mostly successful in reducing the anxiety level of students with lower anxiety levels followed by group instruction, although, the use of One-on-one instruction revealed mixed results.

Jiao and Onwuegbzie (1999) conducted a study on ascertaining library anxiety caused by students' learning modality preference, and found that many students encountered difficulties adapting to library settings. This proposes that learning-modality preference is a precursor of library anxiety. The results indicated that students who have preferences for working in noiseless environments, who enjoyed structure and preferred to receive information through the physical mode, who preference in embarking on challenging assignments in the morning. And also the students who preferred not to embark on assignments both in the afternoon or evening are likely to experience greater levels of library anxiety related to some elements of library anxiety. The findings revealed further that students who preferred to read or complete assignments in a setting

full of noise and who needed flexibility in educational settings are likely to experience greater levels of library anxiety associated with some elements of library anxiety.

Bowers (2010) in a thesis for a doctoral degree at the Midwestern University to ascertain if law students encounter library anxiety and, if this is true, which of the constituents add to the anxiety using a multi-dimensional library anxiety scale. In the six components of library anxiety identified by Bowers (2010), the results revealed that law students encountered minimal degrees of general library anxiety at different degrees. Precisely, the study revealed that the law students who attend evening lectures experienced greater degrees of library anxiety in relationship to comfort with the library staff. Law students who also visit the library once or lesser times in a semester experienced higher level of library anxiety as it related to overall use of the library and research anxiety. However, law students who used online library once or lesser periods in a semester encountered higher levels of library anxiety associated with comfort with technology and online access.

Abusin, Zainab and Abdul Karim (2011) explored library anxiety among undergraduates in a Sudanese university to ascertain elements that caused the library anxiety experienced by the undergraduates. The results of the study confirmed emotional state comparable to the ones established by Mellon's (1986) theory of library anxiety. The finding revealed that there were connections in experiences that promote the emotional state of Sudanese students' level of anxiety even though the factors which aggravate these experiences may not be the same. The results showed that majority of the respondents (88%) asserted that they experienced fear and anxiety when they are writing their first research paper in the academic library. The various constructs highlighted in the diary entries that are particular to Sudanese students indicated that library anxiety is ethnically inevitable. Factors like; settings and hygienic condition of the library, security problem caused by insufficient lockers, noise of furniture dragging, congestion, bad odour caused by removal of shoes by the students, noisy library environments may be particular to Sudanese' libraries and not revealed by the other anxiety researches. Anxiety caused by gender difference which is particular to many Islamic nations is another new condition which often separates the seating areas of both genders.

Lu and Adkins (2012) evaluated the degree of library anxiety amongst fifteen international graduate students in the United States. The results of this study provided the foundation for the modification of the instrument used in the study. The results revealed

that affective barrier and barrier with staff were the greatest sources of library anxiety while mechanical barriers were the lowermost cause of library anxiety experienced by the respondents. The researchers asserted that affective barriers and barriers with staff were the main causes of library anxiety while mechanical barriers had lesser impact on the level of library anxiety experienced by the foreign postgraduate students.

Biglu, Ghavami and Dadashpour (2016) examined the big five personality factors and library anxiety using a multivariate method among students in Ardabil University. The results from the study revealed that library anxieties of students in all subscales are between average and small level. Elements of library anxiety; barriers with staff, affective barriers and knowledge of the library, mechanical and affective barriers are in smaller-to-average and higher-to-average-to-class. This revealed that the major library anxiety experienced by the respondents is associated with emotional and mechanical barriers. Affective barriers are the root cause of the students' feelings of inability to use the library while mechanical barriers are associated with students' feelings of students' inability to use the equipment in the library. The main hindrances to students in the use of university libraries are the great levels of emotional and mechanical barriers as revealed by the findings. The researchers therefore recommend the use of behavioural science consultants and training courses for students in the libraries which could promote the appropriate and effective use of the university library.

Studies both locally and internationally have been conducted on factors responsible for library use anxiety among students generally. Authors have empirically proved that anxiety exists as regards library use among undergraduates. According to McAfee (2018), who conducted a detailed literature review on shame and its emotional basis for library anxiety. The author was inspired by the reports generated from the earlier studies of Mellon (1986) who reported that 75% to 80% of undergraduates exhibited and encountered different level of anxiety when using the library which Mellon (1986) posited was as a result of shame in previous encounter about the library which then translates to library anxiety.

Lewis (2003) who formulated theory of shame opined that a situation that generated a shameful disposition can lead to another shameful disposition and thus can become shame from shame. Hence, McAfee (2018) explored the components of anxiety of undergraduates about libraries using the two pioneering researches and some others. The author after exhaustive literature review concluded that an unacknowledged, recursive shame, that is, shame about

shame, can generate emotional and painful states of mind that can result to library anxiety. The paper highlighted three key shame factors in the library, firstly, the perception of the students about their own inability to properly use the library. This perception is the feeling by the students that their individual skills in using library are grossly inadequate when compared to their counterparts with adequate skills. Secondly, the feeling to hide the inadequacy as being disgraceful and should be concealed and thirdly the feeling that their inabilities would be exposed by asking question. The paper further suggested ways by which identified and neutralized unacknowledged shame in library services interactions to students can be achieved.

Fraser and Bartlett (2018) conducted a multidisciplinary study on the relationships between library anxiety and the race of the African Canadian students in Nova Scotia, Canada. The study aimed at examining the discrepancies in library anxiety and how undergraduates are coping with it among the students of African descent and Caucasian in Canada. The survey design was adopted while the mixed methods approach which included surveys and interviews were the data gathering instruments. Gathered data were analysed using thematic analysis for the interview and frequency counts and percentages as well as inferential statistics for quantitative data. Initial findings through the quantitative approach revealed no significant differences between the racial classifications. However, the interview themes generated results indicating African Nova Scotian undergraduate students are experiencing lower library anxiety in comparison to their Caucasian colleagues. The study further reported that African undergraduates reported comfort when interacting with public libraries and their personnel before gaining admission which made them become good library users based on their previous encounters with libraries. At variance with this, Caucasian Nova undergraduate students reported higher level of discomforts and anxieties at the prior admission to universities during their interaction with their public libraries which lingers through their university years.

Library anxiety amongst undergraduates in the University of Punjab, Pakistan was surveyed by Zia-ur-Rehman, Soroya and Awan (2015). The aim of the research was to examine the phenomenon of the library anxiety among undergraduates in academic library setting, as well as examining the various approaches that contributes towards decreasing or increasing the level of library anxiety in Pakistan. Using a sample of five hundred and fifty undergraduates, comprising students from the 1st to 4th semesters from varying departments of the Quaid-e-Azam Campus of the University of Punjab, Lahore Pakistan, the study relied on the questionnaire

tagged AQAK while data analyses was based on t-test and one-way ANOVA. The results indicated that the students exhibit low level of anxiety as far as usage of library is concerned. It was also found that the indigenous Pakistani students exhibits higher level library anxiety as compared to their foreigner counterparts and 1st semester undergraduates show higher degree of anxiety than their 2nd to 4th grade colleagues. The study also reported that 3rd semester undergraduates feel higher and significant user knowledge anxiety than 2nd and 4th semester students. The study recommended the development of methods and strategies that will be better fit in identifying, addressing and reducing the library anxiety of students.

A study by Amando, Dajab and Bibot (2018) has however suggested a means by which library anxiety can be curbed in the library. The University of Jos based case study opinion paper on the role of University of Jos library orientation programme in curbing library anxiety brought into limelight the menace of library anxiety in the library and how a properly and calculated library orientation programme can be deployed to stem the menace. The paper was based on the personal experience of the researchers and observation that students particularly the new intakes do exhibit phobia traits as far as the usage of library and its resources are concerned. The paper failed to highlight the different types of anxiety exhibited by students or the level of anxiety of anxiety experienced by the undergraduates. It however, recommended ways of curbing library anxiety among students which included the conduct of a compulsory library orientation programmes for the students, sensitization programme by the subject librarians to the students in his/her area of specialisation, provision of a detailed library manual or guide for the freshmen and the maintenance of good and friendly habits by the librarians.

McPherson(2015) reported that library anxiety has been described as factors contributing to academic poor performance among undergraduates. The study opined that there is a challenge to libraries to start considering the seriousness of library anxiety among users and to developing strategies in combatting it. It then determined the indicators of library anxiety amongst students of the faculties of education and humanities in the University of West Indies by considering one hundred and fifty undergraduates in the Mona campus. The study reported that there were indicators such as institutional and personal factors responsible for library anxiety among students in short-term duration. The indicators of personal factors was found to include lack of information literacy skills, lack of prior library skills, unawareness of the extent and capacity of the simple system of information retrieval through the library, and issues relating to navigating

their way in the library while the indicators of institutional factors were the size of the library collection that were seen to be too large, the library building organisation and layout, lack of usable computers and signage and direction absence in the libraries. It was recommended by in the study that aggressive marketing of libraries' product and services through orientation and information literacy programme will contribute immensely in ameliorating the challenges.

In a study by Anjaline and Saravanan (2018), it was found that computer anxiety exists among students of Tirunelveli District students in India. The study analysed library anxiety of undergraduates through the survey of one thousand one hundred and nineteen undergraduates from the colleges of Engineering, Science and Arts in Tirunelveli District. The study reported that the library anxiety experienced by the first-year undergraduates was higher than that of the second-year students. It was equally found that the students exhibit computer anxiety as well while anxiety among the undergraduates differ based on membership in public libraries, education of the parent, discipline and gender. It was additionally found that computer anxiety has negative association with library anxiety. The study concluded however, that the perceived library anxiety by students can be dealt with through the provision of library education on regular bases, promoting positive library experiences as well as user friendly technologies.

However, it has been established that library anxiety has adverse influence on academic performance of undergraduate students as reported by Jan, Anwar and Warraich (2018) in a survey of the relationship that exist among emotional intelligence, library anxiety and academic achievement of the university students. The authors stated that emotional intelligence has a strong connection with library and academic anxieties. The study focused on correlating both library anxiety and emotional intelligence of students on their achievement academically. It was reported that students' library anxiety which the study viewed as academic anxiety, has negative impact students' academic achievements. The authors affirmed that students' library anxiety may increase or decrease based on the capability of the students to manage and understand their own emotions and that of the others. Further findings from the study indicated there was significant relationship amongst emotional intelligence, library anxiety and academic performance of students. The implication of the study was that professional and academic librarians should practically and pragmatically bring to the barest minimum the library anxiety experienced by students in order to improve their academic achievements.

Library anxiety of teacher trainee was investigated by Sharma and Atri (2018), the study reported that library anxiety was prevalent among the students of teacher training college. The five dimensions of library anxiety, namely; mechanical barriers, knowledge of the library, comfort with the library, affective barriers, and barriers with staff were identified. The sample of the study constituted 58 teacher trainees of B.Ed. college of Rohtak District in Haryana. The sample was selected by stratified random sampling techniques. The data collected was analysed by using the statistical techniques of t-test and percentage. The results showed that 28% of the teacher trainees had low library anxiety while 57% of the teacher trainees had average library anxiety, however, 15.4% of the teacher trainees had high library anxiety. It was further found that library anxiety was more prevalence in teacher trainees from rural background than teacher trainees from urban background.

2.4 Library use by undergraduates

The importance library use to educational achievements of undergraduates cannot be overemphasized, as such the onus lies on university library to make information resources available. Goel et al (2012) carried out a survey on library use by undergraduates in a medical college in North India. The finding showed that most of the respondents (90.3%) reported consulting textbooks when using the library. Another purposes for visiting the library was; conferences, to use manuscripts, thesis and projects and inadequate individual book. Most of the faculty members use the library for preparing for lectures or seminars preparation; while some used the library because they did not have their personal books with few of them visiting the library to prepare manuscripts / thesis/ project reports. Less than one-fourth of the respondents were visiting library daily, fairly average was visiting once a week and very few were visiting forth nightly. The authors from their findings concluded that the major reason for using the library was for borrowing and reading books.

Khan, Bhatti and Khan (2014) investigated the use of resources, services and facilities of the Central Library of the University, Peshawar, Pakistan by the undergraduates. The results showed that prepondence of the undergraduates used the library for reading course materials, use reference sources and retrieval of unpublished documents for information requirements. Most of the undergraduates affirmed that the library is efficient in service delivery and they experienced satisfaction with the illumination, aeration, reading tables and the cordial relationship between

staff and the patrons. The main problems that hinder library usage effectively were inadequate electronic resources, insufficient collection and insufficient physical facilities.

Bukhari, Buakhri, Rajha, Ahmad, and Nas (2010) examined library usage by 180 graduate students of the Foundation University College of Liberal Arts and Sciences, Rawalpindi, Pakistan. The results indicated that about 47% of the graduate students affirmed that their library has enough space for their patrons. In contrast to the affirmation more than average of the graduate students specified that their library does not have enough space for their patrons. Most of the respondents affirmed that the librarians offer to help when searching for needed information and are also friendly. Lack of computer with internet connectivity was also indicated from the findings with most of the graduate students indicating dissatisfactions with the condition. The researchers concluded by recommending that the library personnel should assist the students in consulting their relevant materials. A good study environment should be provided by the library to aid proper learning of how to effectively use the library.

Bhatti, Batool and Malik (2013) investigated library usage by the sixty-four Library and information science students at the Islamic University of Bahawalpur, Pakistan a frequency of library usage by the students once a week was indicated by the respondents. Undergraduates used the library majorly for reading books, homework and for tests and examinations preparations while majority of them affirmed that they hardly consult card catalogues, Online Public Access Catalogue or help desk for retrieving information. Furthermore, most of the students expressed satisfactions with the use of reader services, reference sources and physical amenities in the library. The researchers affirmed that the major difficulty experienced by the undergraduates when using the library are electricity instability, shortage of computers and dawdling internet connectivity.

Arthur, Brafi and Kuranchie (2013) did a survey on library usage amongst students of higher institutions in the Sunyani Municipality of Ghana. The findings revealed that majority of the students mainly make use of the library for reading for exams and completing their homework. The use of recommend textbooks, reference sources and past examination questions were materials predominantly used among the students while few of them use fiction and journals. Although preponderance of the undergraduates found the libraries' stock fairly old, but, this did not discourage them from using the libraries. The researchers concluded their study by stating that it is not beneficial for the libraries to continually keep old books in stock, it could

cause low use of the libraries due to advent of technology such as Internet that is capable of making available enormous information

Allison (2015) did a two-year investigation on the effect of library use on undergraduates' and graduates' grade points average (GPAs) at a Midwestern library. The findings showed that a correlation exist amid library usage and GPA for both undergraduates and graduate students which is not necessarily a cause-and-effect relationship. Undergraduates with a higher GPA (3.11) visit the library more than their counterparts with lesser GPA which implies that there is a weak but constructive association amid higher library usage and better performance between the two years of the study for undergraduates. Analysis of data by disciplines of the respondents who have improved their grades revealed a stronger relationship and this confirmed that increase in the patronage of the library predicts improvement in the students' grade. The findings further revealed that undergraduates who borrow library resources within a year will come back to borrow materials in the following year, however, there was not enough evidence that the database used correlated with return sessions.

Adeyoyin, Agbese-Unaz and Oladeji (2013) conducted a research to determine the level of usage of an academic library in a federal university of agriculture in Nigeria. The researchers asserted that most of the undergraduates were using the library for numerous reasons which include reading personal materials, use of reference materials, borrowing books and consultation of library materials for completing course assignments. Most of the undergraduates use the library on weekly base and that books are mostly used and the respondents affirmed that the library information resources are adequate. During examination period, the academic library witnessed influx of most students coming to use the library as indicated by the finding which is referred to as the peak period. The researchers note from the findings of their study that this is not a good phenomenon because the importance of university education is to imbue students with knowledge and this could be accomplished through frequent usage of different information materials and services in the university library.

Soria, Fransen and Nackerud (2013) discussed the influence of library usage on 100 level undergraduates at the University of Minnesota, USA. The result indicated that entry-level students who make use of the library have a greater GPA for their first semester and greater retaining capacity from one season to the other than those that did not use the library at all. Mulla (2011) reported the undergraduates' opinion on resources, facilities and services

provided by HKBK College of Engineering (HKBKCE) library, Bangalore. The findings showed that preponderance of the respondents affirmed to have to be highly cognizant of library materials and services provided by their library and use them as well. Most of the undergraduates affirmed that they are pleased with the services and facilities provided by their university library. Kumari, Firdaus, Iqbal and Khan (2014) investigated the level of awareness and utilisation of library services by the patrons of Women's College (WC) and Tika Ram Kanya Mahavidyalaya library (TRKM), India and found that about one-third of the respondents (38.9%) in WC and TRKM (37.7%) used the library about 2 to 3 times in one week. Majority of the patrons from both libraries have preference of visiting the library to borrow books. However, out of all the available information in the library, newspapers and reference sources are frequently used by the students. Majority of the students affirmed they are contented with the physical facilities of library which include the location of the library, available space for reading, and furniture while about one-third of the patrons showed dissatisfaction with the level of accessibility to information sources. A substantial number of the students expressed satisfaction with the effectiveness of the library, however, the main barriers encountered by patrons in obtaining information needed include inadequate library resources, stringent library rules and library's opening and closing hours.

Umeozor and Afolabi (2014) investigated the influence of current awareness service (CAS) and library environment library use by students at a Federal University library in South-South, Nigeria. The result of their findings indicated that CAS and library setting applied substantial constructive impacts on students' usage of university library. This reflected that efficient use of CAS and conducive library setting increase library patronage by the students. The researchers observed that librarians were not giving satisfactory consideration to the use of CAS as an effective approach for improvement of library use. Quadri (2013) examined the effect of demographic factors on the online library resources usage by undergraduates in two Nigerian private universities. The result affirmed that there is high connection and substantial association amid the year of study of the undergraduates in both universities and the usage of online library resources.

Hussain and Abaljhail (2013) surveyed the determining factor of library usage, library stocks and services among engineering students at King Saud University, Riyadh (KSA) in Saudi Arabia. The results revealed that majority of the students (89.3%) visit the library regularly,

while very few of them (10.6%) were not using the library regularly. The result revealed the peculiarity of the category of users and their preference of the information sources consulted, while majority of the research scholars (97.8%) used reference sources and research work, many of the undergraduates (96.4%) visit the library to borrow and return books. The result showed that most of the respondents consult the library catalogues to locate the documents, 78.9% used the reader service, while 70.1% used reference services. The result revealed that majority of the students affirmed that they were contented with the reading tables and chairs and computer facilities, however more than average of them (60.6%) affirmed that they encountered difficulties in the use of computer facilities majorly.

A research which was conducted at a college in north-eastern city in the USA by Brock and Tabaei (2011) revealed that students learning interest and engagement have greatly increased and they have become strong advocates of the library with strong familiarity with its resources, collections, and its general importance and they are able to find solution to problem as the occasion arise. Similarly, the pattern of library use differs amid higher institutions and there are a lot of motives for infrequent use, but it would look as if in some courses, learners who study more, borrow books and access e- resources, have more marks than their counterparts as reported by Goodall and Pattern (2011) in a research on students' library patronage at Hudders field University, United Kingdom.

Sahu, Swain and Rout (2012) did a survey on decrease in the usage of library services of an Engineering institution in Odisha, India. The results showed a declining inclination of library use by the students which may be because the students are satisfied with the notes given to them by their lectures and inadequate textbooks or some free web resources. The study showed that preponderance of the respondents use photocopying services from the library and a little over one-third of the students use the library for the purpose of reading newspapers and borrowing books. However, a minute number of the respondents use other main information sources and services of library which are Internet service, use of periodicals, research materials, use of reference sources, and reading course materials. However, the students affirmed that, they are dissatisfied with services offered by the library such as, online journal service, interlibrary loan service and OPAC service. The findings indicated that there is a declining tendency in the usage of library main services by the engineering students of the institution. The results further

revealed that most of the students expressed satisfactions with the library collections at every section of the library with the exception of serial section.

Onwudinjo, Ogbonna and Onwumbiko (2015) determined the extent of use of the Faculty of Law library at the Nnamdi Azikiwe University, Awka, Nigeria. The results revealed comprehensive knowledge of the utilisation of the law library collections. Most of the students used the library three times in a week, while few of them use the library occasionally. The main purposes of library use by the students are for examination preparations, report cases, to form supplementary lecture notes, complete homework and photocopying of materials. Alade, Iyoro and Amusa (2014) explored the library use characteristics of undergraduates in a Nigerian university and reported that preponderance of the respondents use their university library for few days in a week while major purpose for using the library is to study and for examination preparations. The result of the findings also revealed that references, textbooks and use of journals and reference sources are the often regularly used library resources by the respondents. Previous library use skills and library instruction programmes could trigger library use among the undergraduates. Influence of previous library use skills and library instruction programmes have positive effect on the rate at which undergraduates use their university library. However, the level of library instruction programmes offered by the university is considered adequate to enable the undergraduates retrieve information sources needed most of the time.

Mairaj (2013) did a research on the use of university's library websites in Pakistan and affirmed that the library users were satisfied with their university library websites. The library users who used the Internet and library frequently were the frequent users of the library websites. The university websites create awareness about the library website and the university library is the designated place to use the library websites. The university websites also create awareness about the availability of computers. Each category of patrons has specific preference when using the library website, the faculty members use the library websites through their departments or faculties while students and researchers chose to use them through university libraries. It was also noted that the main use of the library websites by the patrons was to search in online public access catalogue (OPAC) or to find information materials related to their course of study. The researcher recommends that the university libraries in Pakistan should create active websites which have valuable content and high-tech services for extensive use.

Gaby and Jayanthi (2010) investigated the correlation between the library use by new university students and continuous admission at Curtin University, Australia. The results showed that most of the newly admitted students of Curtin University were not using the core information materials in the library. Less than two-thirds of the students had not borrowed books or a DVD, throughout the semester. At variant, almost 75% of the newly admitted students had used the library computer terminal and over 80% had used e-resources via the library website. These results were not expected, taking into consideration the age of most these newly admitted students. The findings also revealed that there is an association between the students retention and greater levels of library use throughout the semester. There are also significant differences between use of library workstations and other electronic resources and retaining capacity at the beginning of the semester. However, the researchers asserted that there is a relationship between these types of library use and a student continuing enrollment which has inferences for the planning of library instructions and information literacy programmes.

Nwezeh and Shabi (2011) examined the students' use of university libraries in Nigeria and reported that more than half (55.6%) of the respondents on a daily basis used about one to two hours in the library. The quantity of hours used in the library increased as they advance in their levels of study while the mature students used more hours in the library. Although majority of the respondents used one to four hours daily in the library, the results indicated that more time was used by the students to read their personal books, lecture notes, magazines and newspapers. Generally, the students' responses based on their knowledge of the library and library procedures were very poor, the responses indicated that many of cannot use the simple retrieval tools. Majority of them affirmed that they were not aware that reserved collections exist in the library and could not use them. A quarter of the students indicated that consulting the card catalogue is the first thing to do to get a book from the library while about 40% stated that the circulation desk is the first place of call.

Nkamnebe et al (2014) evaluated the usage of library resources by the learners of Paul University, Awka, Anambra, Nigeria and reported that daily usage of the library by the learners is considerably low with a minute number of the respondents (6.5%) affirming that they use their university library on daily basis. The highest number of the students (22.8%) indicated that they visit the library three times in one week, while about (19.6%) visit the library once in a week. In contrast, about (22.1%) of the students barely use the library. However, a minute

number (6.9%) of the students affirmed that they did not visit the library since they have their personal books and PCs that provided them with required information needed for their academic work. Soria, Fransen and Nackerud (2013) conducted a survey on library usage and undergraduates academic achievements at the University of Minnesota, USA. The result showed that fresh students who had greater grade point averages are those who used the library at least once in the semester compared to their counterparts who did not visit the library at all during the first semester. The findings of the survey further revealed that fresh students who used the library at least once during the first semester had higher retention from fall to spring semester. The researchers also note from the findings that there are differential associations amid the academic achievement and the types of library services that the fresh students used. Specifically, there are about four types of library resources that have positive significant relationships with academic achievement of students who use the physical library to access online databases, access electronic journals, and borrow books. Registration in the Introduction to Library Research Part 2 workshop and usage of online databases were the only two library programmes that have correlation with the retention of the students.

Ntui and Udah (2015) stated that obtainability and ease of access of library information materials make it relevant to the host community. Accessibility of library resources with ease will apparently be a source of attraction to library users which will obviously increase its utilisation. Acquisition of information materials by the libraries is to satisfy the information requirements of the library users, these resources are the basic materials that make available important services for teaching, research and learning process. Making library materials available creates an enabling setting for the use of library information resources by the students.

Akobundu (2008) did a research on the influence of obtainability and ease of access of information sources on library services at Michel Okpara University of Agriculture Nigeria and reported that obtainability and ease of access of information sources were very poor at the university library. The results showed that there are significant associations between the use of library services and the variables, and that these variables have effect on the use of library services to a great magnitude. It was concluded by the researcher that library services are averagely used due to lack of availability and accessibility of library materials. None acquisition of library information sources or they are at the technical section for processing are reasons why library information sources are not made available to users. The study further revealed

that availability of library information sources did not determine the easy accessibility by the users. This is attributed to inaccurate indexing and cataloguing, ineffective loan and circulation system, bad shelving, and inadequate guides to library arrangements, along with administrative and physical barriers. There is inadequate hardware for using the library materials in both electronic forms and non-print media in the library.

Faculty Awareness, perception and use of library resources and services in a private university in Nigeria was surveyed by Oriogu, Chukwuemeka and Oriogu-Ogbuiyi (2018). The aim of the research was to test the faculty awareness, which include staff and students' perception and use of information resources and services in Afe Babalola university college libraries. The study adopted survey method. A total of hundred academic staff that used their college libraries was randomly sampled. Five research questions guided the study and data were collected using structured questionnaire. The data were analysed using descriptive statistics and the findings showed that most of the respondents were not using e-book, e-journals, CD-ROM databases, OPAC and electronic databases in the library. The findings also showed that the students were fully aware of the availability of the information resources in the library; although it was discovered that annual report/brochure, phone calls/SMS, exhibition and display are not used to create awareness which has invariably resulted to poor patronage. Considerably, most of the students have a positive perception of information resources and services. The study finally recommends that there should be proper sensitization of faculty members on the availability of electronic information resources and also college librarians should ensure effective provision of library services among faculty members.

A critical analysis of social networking and its influence on undergraduates' reading habit was also studied by Mbamalu and Onyido (2018). The study posited that social networking is one of the components of the information and communication technology (ICT) currently trending across the globe and has found most attraction among the young people especially the undergraduates which has affected the library use pattern among this category of students. The authors argued that greater impetus to the involvement of young people comes from the emergence of mobile technology which has made internet services relatively affordable and accessible and it has promoted greater interaction across traditional barriers, it has equally come with much concern about its influence on undergraduates' library use and reading habit. Based on this concern, the paper critically analyzed undergraduates' craze for social networking and its

influence on their library use and reading habit. Using documentary sources, the paper contends that reading remains irreplaceable; but greater immersion of students in social networking may have adverse influence on undergraduates' library use and reading habit. The study made requisite suggestions were made to curb excesses in the use of social networking sites.

According to Soyemi and Ojo (2015), lecturers' perception and attitude towards plagiarism among students and its implications for higher education in Nigeria indicated that improper usage of library among student was to be blamed among other factors that are responsible for the current low academic performance of undergraduate students. The authors stated that the advent of the Internet and the consequent free access to increasingly available information resources and possibilities for students' 'copying and pasting' text from online documents has raised so much concern and that without doubt, plagiarism has a diminishing effect on the academic integrity of higher educational institutions, making knowledge transfer somewhat impossible. The authors raised a concern that a growing need for lecturers to address the underlying causes is increasingly becoming inevitable. Thus, the study examined lecturers' perception and attitude towards plagiarism and its implication for higher education. The study adopted a survey research design. The simple random sampling was used to select lecturers from Babcock University.

Data were collected from 183 lecturers using a structured questionnaire titled 'perception and attitude towards plagiarism'. Collected data were analyzed using descriptive statistics. The study revealed that lecturers were aware of what constitutes plagiarism which majorly was found to be improper usage of the library and lack of information literacy programme among the undergraduate students. Also, majority of the lecturers perceived students plagiarize mostly due to laziness or poor time management. Likewise, lecturers check for well written sections without references or quotations in detecting plagiarism. It was also revealed that majority of the respondents give warning to students verbally or through a feedback sheet while only very few of the lecturers' sends a plagiarism case to an academic misconduct panel. It was concluded that lecturers understand what constitutes plagiarism and the means of detecting it and that library use is very important in stemming plagiarism. The study recommended therefore that institutions put in place policies to encourage lecturers to formally enforce the students to use the library as expected and report cases of plagiarism.

Anasi and Adediji (2014) studied the information accessibility and utilisation as correlate of reproductive health knowledge of undergraduates in universities in Nigeria with the aim of investigating the influence of information accessibility and utilisation on reproductive health knowledge of undergraduates. The authors advanced that access to accurate information increases awareness of the consequences of risky sexual behavior and could also deepen young people's reproductive health knowledge. Questionnaire was used as instrument for data collection data from 2615 undergraduate students drawn from six conventional federal universities, one from the six geopolitical zones in Nigeria. Pearson Product Moment correlation coefficient was employed to test the relationship between the variables. Regression analysis of variance (ANOVA), Beta weights and t-test were used to test the level of significance. The multiple regression correlation coefficients indicated that the linear relationship among accessibility, use of reproductive health information sources and knowledge of reproductive health was .229; R square equals 0.052 while the adjusted R square equals 0.051.

Further verification, using Regression ANOVA produced $F(21612)$ ratio equals 44.652; $P < 0.05$. Hence, the study reported that there was significant linear relationship among accessibility to, use of reproductive health information sources and knowledge of reproductive health. The Beta of accessibility to reproductive health information sources to the prediction of knowledge of reproductive health was ($P = .072$) while the Beta of use of reproductive health information sources to the prediction of knowledge of reproductive health was ($P = .253$). Accessibility to reproductive health information sources ($B = .052$; $t = 2.627$; $P < 0.05$) and use of reproductive health information sources ($B = .086$; $t = 9.278$; $P < 0.05$) jointly had significant relative effect on knowledge of reproductive health. Both variables were significant predictors of reproductive health knowledge. The study therefore concluded that accessibility and utilisation of reproductive health information sources could predict reproductive health knowledge of undergraduate students. The study recommended that reproductive health information needs of young adults must be acknowledged and addressed appropriately while agencies of information such as libraries should be in the forefront of this advocacy.

However, Okonoko, Atanda and Brume-Ezewu (2018) reported the challenges encountered by undergraduates in the quest to use library resources. The study was done in a college of education, Agbor, Nigeria focusing on usage challenges of library resources amongst students in the College of Education. An investigation was done to determine and answer the

research questions raised. Data was gathered through the usage of the questionnaire from one thousand three hundred and twenty-five. Though the study was on challenges being faced when using library electronic resources, the findings showed that the students utilised majorly textbooks, followed by theses and dissertations, as well as journal articles, reference materials and computer resources. The study equally reported that the students read online newspapers and magazines. It was found in the study that challenges face use of the library's electronic resources ranges from dearth of Internet facilities, inadequate funding of the library, insufficient number of the required professional librarians, unavailability of reprographic facilities, dearth of functional information and communication facilities, inadequate relevant facilities, conducive library atmosphere, total lack of user education or information literacy programme, poor library collections/resources state, resources awareness lacking, as well as poor reading atmosphere. In order to surmount the identified challenges, the study opines that the administration of the library should make funds available in order to be adhere to be able to meet the needs of the library among others.

Usage of library information resources by undergraduate students of University of Medical Science Ondo, Ondo State, Nigeria was likewise considered by Aladeniyi and Owokole (2018) to look at the use of library information resources by students of University of Medical Science, Ondo, Ondo State, Nigeria. Engaging exploration configuration was utilised for the examination. The number of participants in the examination was the enrolled clients of the library for the 2016/2017 scholarly session. Accessibility testing strategy was utilised for the examination. For this situation, just the learner's library client that was accessible in the library as at the season of this examination were utilised for the investigation. Questionnaire that was self-developed was utilised as the instrument for information gathering. 276 duplicates of the questionnaire that was self-developed was shared and two hundred and thirty-four (234) duplicates were recovered from the respondents. The information assembled through the survey was investigated using recurrence tally and basic rate. As indicated by the discoveries the respondents consented to the accessibility of all the recorded resources in the questionnaire that was self-developed. Huge share of the respondents utilised the library information resources to get information for general use, for examination, for the task, and for research. The discoveries additionally uncovered that a larger part of the respondents utilised the library information resources at times while reading material was observed to be the most used library resources by

the respondents. As uncovered in the discoveries, just couple of respondents demonstrated that they were having difficulties in their use of library information resources. In view of the discoveries of the investigation, a few proposals were made to upgrade better utilisation of the library information resources in the university library.

2.5 Personal factors and library use by undergraduates

Personal factors are characteristic of undergraduates which may influence their use of the university libraries. Researchers have identified various characteristics which could contribute to the personal factors of undergraduates that could possibly affect the use of their university libraries. These factors consist of age, gender, level of study, academic discipline, level of awareness of library resources and services, inadequate knowledge and skills of library resources and type of secondary school attended. Stone and Collins (2013) did a research at the University of Huddersfield to find out if demographic characteristics such as age, gender, ethnicity and country of origin have an influence on library use by the undergraduates; the findings revealed that there is a relationship between demographic characteristics and library use. The library use by mature students is higher than their colleagues who are not mature and there is a minute but significant difference in their use of library. Specifically, e-resources were highly used outside the school premises and low usage of the campus-based library while country of residence is more essential than ethnicity in its relationship with library use. There is a major difference which is very significant in the synergy between the results of students who are of Chinese ethnicity and students who reside in China. There is useful evidence revealed by the study that affirmed that there is a relationship between demographic variables and numerous dimensions of library use among the respondents. Most of the times, the influence of the demographic variables is insignificant, but it may however show some level of significant on library usage by the students.

Gender difference has been a major phenomenon, which has been the centre of heated public discussion in all areas of life, ranging from political to good governance, health, social, education, religion and economics. In the area of education, gender difference has been documented in relation to teaching practice, skills acquisition, professional developments, classroom interaction and information literacy behaviour among others. Regardless of the range of research on gender matters, substantial transformation in relations to gender equivalence and accessibility to resources is still very inadequate. Research findings in Nigerian university

libraries on gender differences in library use are still not many. (Daramola, 2013). In the same vein, Moser (2011), described gender as a socially created relationship between male and female and should be dominant in development programmes. Although male and female students are both trained in the same schools nevertheless their experiences differ greatly.

Daramola (2013) investigates gender differences in the usage of academic resources in Federal University of Technology Akure University library, Nigeria. Results from the research showed that there are differences in gender, age, marital status, internet access, and use of advisory services in the library. The results showed that married women were not using the library resources as much as their male counterparts even though, they fall within the same age cohorts. Likewise, young and mature males used internet facilities, electronic books and reference sources more than females. There was evidence from the findings that there is no significant difference in the use of textbooks and library loans by both males and females, while majority of the females used advisory services compared to their male counterparts. Fiction and nonfiction magazines were utilised more by females than males. The researcher recommended that females should be conversant with internet facilities to move with the recent ICT wave to bridge the gap between males and females differences in the use of information resources

Tella and Mutula (2008) did a research on gender differences in computer literacy among undergraduates and its effect on library use at the University of Botswana, South Africa and opined that students with advanced computer skills were more disposed to access and make use of library facilities. They further reported that there are differences in computer literacy of both female and male undergraduates at the University of Botswana. Similarly, Steinerova and Susol (2007) investigated the information behaviour of students and lecturers in sixteen academic libraries in Slovakia. The findings revealed that men preferred to use Internet as the main source of information. Men also placed more emphasis on free electronic resources in contrast to women who use licensed resources more regularly. Likewise, Manda and Mulkangara (2007) also reported that there is a relationship between gender and the use of e-resources, in a study done at the University of Dares, Salaam, Tanzania, and that male postgraduate students have the tendency to use e-resources more than their female counterparts. The findings further revealed that although when there was control in the attitude of the students towards the use and training in the use of e-resources the association between gender and e-resources was upheld.

Bassi and Camble (2011) investigated gender differences in the use of electronic resources in university libraries in Adamawa state Nigeria revealed that the purpose of use of electronic resources differ between male and female students. The most common purposes of use are for research, assignments, and writing of project/thesis/dissertation while every user requires specific resources to meet his or her information needs. The study also revealed that search skills were majorly acquired by students of both gender through friends, classmates and library instructions. This could be the reason why gender could not be a factor that determines the way students acquire search skills, since students relate and share their experiences with friends and classmates. However, the findings indicated that there is difference in the attitudes of students towards the use of electronic resources between both genders, the female students do not use e-resources as much as their male counterparts.

Rahman, Mahmud and Jamaludin (2013) evaluated the effect of gender and race differences in digital library use in Malaysia. The findings revealed that, there are few of the respondents who use the digital library frequently, however, the statistics showed similarity between the digital library use of the male and female respondents. Comparison of the age cohort between 41-51 years and 22-30 years, the average use of the digital library was comparable. The respondents between the age of 31 and 40 years could use digital library more frequently than those in the other age cohorts. The findings revealed that about half of the respondents have used the digital library for four times in one week. The researchers therefore concluded that there was no evidence of substantial differences in the digital library use between male and female group as indicated by the mean scores of each gender group. At variance with this finding, Anfinsen, Ghinea and Ceasare (2011) affirmed that male users expressed more satisfaction compare to their female counterparts in the use of digital library, this is because the female users experienced greater difficulty learning to operate and use the digital resources than the male users. However, significant difference was noticed between an age group and race groups, the differences were significant between age 22-30 years and 31-40 years old.

Emiri (2015) conducted a research on the effect of demographic factors on the use of online public access catalog (OPAC) by undergraduates in two universities in Southern Nigeria and the findings revealed that there more females users of the OPAC compare to their male colleagues. Undergraduates who have advanced in their level of study (300-400 level) could use OPAC more than others who are at the lower level of study, this could be because these higher

level students are more conversant with OPAC have used more years in the university. There are no significant differences in the effect of demographic factors such as age, gender and level of study in the usage of OPAC in the two universities.

Sivathaasan (2013b) also conducted a survey to ascertain if there is any significant variance between personal factors of undergraduates and the use of library facilities in the main library of University of Jaffna, Sri Lanka. The results indicated that personal factors such as gender and year of study have negative relationship with the use of library facilities on the contrary, subject discipline is positively associated. The results showed that there is no significant difference between gender, level of study and subject specialisation on the use of library facilities. The statistics showed that there is no significant variance between perception of male and female students involving the library facilities available at the university main library, however, the male respondents used the library facilities more compare to their female counterparts. There is no significant variation in the use of library facilities between 200level and 300level students. The results showed that there is no significant difference in students' subject disciplines (finance, accounting, marketing and human resources management) and the use of library facilities. Averagely, students studying human resources management affirmed that they enjoyed more the use of library facilities compared to the students studying other disciplines.

Quadri (2013) examined the effect of demographic factors on the use of online library resources by undergraduates in two private universities in south west, Nigeria. The findings indicated that there is high correlation which is significant between level of study of the undergraduates in both universities and the usage of online library resources. The relationship between the gender of the undergraduates in Babcock and Redeemer universities and the use of online library resources was very weak. The result on the age of the undergraduates in both universities and the use of online library resources indicated a high significant level of correlation. However, there was a feeble relationship between the religious conviction of the undergraduates in both universities and the usage of online library resources.

Fati and Adetimirin (2015) did a study on OPAC awareness as a factor influencing OPAC use by undergraduates in two federal universities in South-West Nigeria. The results indicated that there was high level of OPAC awareness by most of the undergraduates. It was also established that despite the fact that the respondents had high level of OPAC awareness, the use of the OPAC by the students is very low as the preponderance of the respondents did not use

the library OPAC at all. The result of the study further showed that there was a significant modest positive correlation between undergraduates' OPAC awareness and their usage of OPAC. Onifade and Sowole (2011) did a research on the awareness and perception of undergraduates on reference services at a university library in Nigeria. The study shows that preponderance of the undergraduates was not aware of reference services in the library. There is a wrong perception of the reference services by the undergraduates who are aware of its existence, they regarded the use of reference sources as the same with the use of reference services.

Most of the undergraduates do not regard the reference librarian as a resource person who is able to enhance their searches and meet their information needs. The findings also indicated that reference sources are not adequately used by student except dictionary which is mostly used by the undergraduates. Undergraduates who did not know the significance of reference materials to their study affirmed that they are not conversant with the reference materials. Moreover, majority of the undergraduates who did not find most reference sources appropriate because they are archaic and did not meet their present information needs. Students expressed dissatisfactions with the assistance rendered by the library personnel, even though this could be as a result of having just one reference librarian handling many users' questions from different academic disciplines.

Norliya (2009) investigated the differences in satisfaction between three faculties; Law (LW), Administrative Science and Public Policy (AM) and Information Management (IM). According to findings from this research, students of Faculty of Information Management are likely to show more satisfaction than those from AM and LW. Omehia, Obi and Itohowo (2008) equally studied the difference among students' characteristics and the use of library services. The result showed that there are differences in library use associated with course of study (science, social sciences and humanities and arts), year of study and socio-economic background. In the same vein, a study on awareness and use of online information resources by medical students at Delta state university Nigeria by Baro, Endouware, and Ubogu (2011) also confirmed that most of the students lack awareness and as result did not use online information resources. The researchers affirmed that with the overall disposition in the direction of e-resources and the library as a good access point for these resources, this low awareness could cause underutilisation of resources available in the library.

Anyaoku (2015) carried out a survey to evaluate undergraduates' awareness and use of medical library resources in the College of Health Sciences, Nnamdi Azikiwe University, Nigeria. The findings indicated that majority of the respondents affirmed that the main purpose of the library is in the provision of information and research resources. This can be regarded as good and positive perception from the students for the reason that they described the Medical Library's main functions correctly. There is high awareness of print resources compare to other information resources in the library while a high percentage of the respondents affirmed that they are aware of the availability of books in the library. Similarly, a high number of the respondents were also aware of the availability of journals, newspapers and encyclopedia in the Medical Library. However, there is generally poor awareness of the availability of electronic resources in the Medical Library with about 60% of the respondents affirming that they are not aware or sure that electronic resources exist in the Library.

Alade, Iyoro and Amusa (2014) investigated the library usage characteristics of undergraduates in a Nigerian university and established that prior knowledge and skill in the use of library at school or college level have positive influence on undergraduate library use. The respondents' school library use have fairly significant effect on the respondents' use of academic library in their institution. One hundred and seventy three respondents (52%) confirmed this. However, 121 respondents (37%) reported that school library uses have influence on their use of library, and 38 respondents (11%) indicated it has any influence. The findings further revealed that another factor that could positively influence use of university library by undergraduates is library instruction or user education programme. They concluded their study by affirming that school library use experience and library instruction programmes positively influence library use of the undergraduates which implies that these two factors were positively disposed to in the study. Bridges (2008) also examined the relationship between undergraduates' academic disciplines and library use. The findings of this research offered insights about the comparisons of undergraduates by academic disciplines and their library use. The findings indicated that even though engineering students did not show any difference from their counterparts in other departments in their use of the physical library, they were probably likely to make use of the online library resources less when likened to other students from the department of liberal arts. The findings revealed that engineering students do not receive as many assignments that require virtual library use of journals and databases when compared with liberal arts students, who are

often engaged in extensive researching and subsequent writing of papers. The study also revealed that comparing students of agricultural science department with their counterparts in science, health and human science, and liberal arts are probably less likely to use the physical library.

Unuabor and Oseghale (2018) conducted a research on the impact of the use of library course for undergraduates' better usage of library resources in Faculty of Education, University of Ibadan. According to the author, the study was borne out of concerns about undergraduates' inability to use library and its resources effectively and the major focus of the study was to ascertain how undergraduates in the Faculty of Education, University of Ibadan use the library and its resources in spite of the user education given to them. Survey research method was employed, and a questionnaire was used for data collection. Two hundred and thirty respondents were randomly selected from total population of 1546 users. To a very high extent it was revealed that undergraduates do not use library resources and services effectively. The nature of user education programme, timing and content were the major factors that caused undergraduates dissatisfaction in using the library resources. The findings adjudged undergraduates as non-frequent users of the library. Failure to accord Use of Library the status of a full-fledged General studies (GES) course was found as the most significant factor limiting effectiveness of user education programme through the Use of Library. Therefore, the study recommended that "Use of Library" should be separated from the Use of English in the /GST/ GES/GNS 101. Use of library should be offered as a full fledge course with a unit credit to boost seriousness amongst undergraduates in the Faculty of Education in Universities. University at large could help undergraduates to equip themselves for their future workplace in other to be in the position as educators to serve as a role model to the next generation for the cardinal place and value of library in academic development.

In a similar vein, the impact of electronic information resources uses on scholarly execution of Higher National Diploma (HND) learners in Federal Polytechnic, Nekede, Owerri, Nigeria was surveyed by Okorie, Nwokocha and Ibenne (2018). The study investigated the impact of Electronic Information Resources usage on scholastic execution of HND learners of Federal Polytechnic Nekede, Owerri. The research was descriptive in design and adopted the quantitative survey method data collection was done through the use of questionnaire. The population of the study was 385 students which comprised 202 students in HND 1 and 183 in HND 2 in the Department of Library and Information Science. The entire population was used

for the study due to the manageable size. The data was analysed using mean and standard deviation. The findings revealed that the HND students used Electronic Information Resources (EIR) daily for academic purposes such as helping them in completing their assignment and seminar papers. A greater number of the respondents attested to the fact that the use of EIR influence their performance in seminar writing and presentation positively with a mean score of 2.77 which is above the decision rule of 2.5. Electronic books (e-books) were found to be the resource mostly available for the students' academic consumption. The study identified epileptic power supply and the cost of access as the main challenges faced by the students in the use of EIR. Constant provision of electric power and reduction in the cost of accessing the Internet, were therefore, suggested as the possible solutions to the identified problems in the students' use of EIR.

White (2018) carried out a study on elements affecting library education self-viability of Prelicensure Baccalaureate Nursing Students through the overview. The creator situated that library proficiency is fundamental to attendants' conveyance of value patient consideration because of its job in proof-based practice. Thus, all nursing learners must accomplish library proficiency fitness upon graduation. Nonetheless, a couple of productions have investigated factors that impact library education aptitudes of prelicensure baccalaureate nursing learners and even less is thought about current instructive techniques utilized by the workforce to advance library proficiency fitness. This investigation utilised a blended strategy configuration to look at learner factors and instructive procedures that impact library proficiency self-viability of senior-level prelicensure baccalaureate nursing learners. The reason for existing was three-overlay to portray nursing learners' library proficiency self-adequacy levels using a legitimate and dependable device; to dissect connections between statistic factors, instructive methodologies, and library proficiency self-viability; and to give a depiction of instructive techniques utilized by nursing programmes to achieve library literacy competency of graduates.

A convenience sample of 260 prelicensure nursing students from baccalaureate programmes across the United States was used. Additionally, eight qualitative interviews were conducted with faculty and administrators from participating sites. The Library Literacy Self-Efficacy Scale (LLSES) was used to assess library literacy self-efficacy amongst this cohort of students and directed content analysis helped to identify qualitative categories and themes relating to library literacy educational interventions under the framework of Rogers's Diffusions

of Innovation (DOI) theory. A statistically significant relationship was found between library literacy self-efficacy and student age, online search preference for Google, frequent use of textbook as information sources, and frequent use of professional journals as information sources as these factors accounted for 13.9% of the variance in ILSES scores ($F(4, 252) = 10.192$, $p < .0005$, $R^2 = .139$). Further statistical analysis indicated two student factors, younger age and preference of Google for online searching, were associated with lower library literacy self-efficacy scores. Additionally, a coding matrix developed using DOI theory was used to explore six qualitative themes that emerged from faculty interviews relating to library literacy education strategies. The study's most prominent theme relating to faculty's use of library literacy pedagogies was focused on communication channels and social systems. Implications from this study's results may be used by nurse educators, administrators, and policymakers to develop innovative evidence-based library literacy pedagogies and improve nursing programme curricular designs.

In a study on use of scholarly libraries: the job of service quality, resources, and client attributes Simmonds and Andaleeb, (2001) stated that focused weights from various information professionals; generally accessible information resources; increasing expenses of books, serials, and electronic resources; and developing new innovations and administrations giving data to potential library clients bring up issues about the job of scholastic libraries in present occasions. There has been some thought about the need to all the more likely to comprehend and characterise the requirements and desires for library clients to give the suitable kind and dimensions of administration to give fulfillment and service quality. In any case, regardless of whether fulfillment with administrations is probably going to clarify the utilization of real offices is a debatable inquiry i.e., the connection between client fulfillment and use of the physical offices might be shaky. This investigation proposes and tests a model to clarify the utilization of scholastic libraries. The informative elements incorporate service quality elements, resources, and client attributes. Learners in three scholarly libraries were overviewed in Erie, Pennsylvania, over a time of three semesters. Out of the 210 surveys that were circulated, 188 were returned. The model was critical and clarified a portion of the variety in library utilisation.

The investigation revealed that the discoveries additionally recommended that library use is impacted by effects, for example, a clean and outwardly engaging library. Unmistakably, the physical appearance of the library must be made speaking to carry clients to the offices. This

discovering likewise proposes the requirement for extra investigations that investigate what establishes "visual intrigue." The discoveries ought to give a contribution to originators and repairs about building design, shading tones, luxuries, etc that improve visual intrigue. A few clients in scholastic organizations discover it amazingly hard to contemplate or do any critical research in their quarters. Huge numbers of them have issues with mates in their hostel accommodation, boisterous clamors in their rooms, etc. For them, and others in comparable circumstances, the library is progressively helpful for research and examining. Some grown-up learners specifically welcome the environment of the scholastic library, which goes about as comfort from their bustling lives in the work environment, family lives, and other nonacademic commitments. Thus, the library condition must intrigue all clients.

According to Elsabagh and Elhefnawy (2019) many studies that were conducted by previous researchers have discussed the different factors that affect students' library usage patterns but have not really delved into the factors responsible for those patterns. The authors therefore conducted a study to determine the factor affecting library usage pattern among female nursing learner. A graphic plan was utilised in the investigation. The examination was held in Nursing College at Taibah University, Saudi Arabia. The examination contained 205 undergraduate female nursing learners has browsed the previously mentioned setting. The number of participants was 258 of various library utilisation levels, that from level 3 to dimension 8. Two apparatuses were utilised to gather information. The principal instrument was Interviewing survey, the second device was questionnaire that was self-developed to assemble information on the variables influencing nursing learners The discovering demonstrates the most factor influence library utilisation example was from individual condition was feeling tired in class and less factor was troublesome of breathing and from the examination propensity the most significant factor influencing library use example was concentrating just for test, instructor has dominance of the topic' had the best mean with a high effect, and the time planned isn't pursued was viewed as high effect factor of school-related perspectives. The investigation finding inferred that there are a few elements in charge of a high effect on the library use execution of learner medical attendants, with School-Related components beating the rundown. Among the five (5) areas, contemplate propensities and educator related elements fall behind the school-related variables. Regardless, the two classes are still esteemed to be exceptionally effective. The primary examination proposals were that educators should utilise differed procedures in order to

improve the scholastic example of the students; instructors ought to experience courses on instructing techniques to improve homeroom guidance; the specialist recommends an exploration indicating a subject in deciding the elements influencing the library use example of learner nurture and adding respondents from level one to level three.

Investigating library use culture among students in higher learning institutions in Tanzania, Wema (2018), reported that library use is hindered by some factors. The paper presents findings of a survey conducted in some selected higher education learning institutions in Tanzania to determine the library use patterns of students when they undertake extracurricular activities. The purpose was to ascertain whether students utilize their time in library use and reading various informational materials for purposes other than academic activities. Electronic questionnaires were conveniently distributed to students at DUCE, IDRDP Dodoma, Law School of Tanzania, RUCU Iringa, SLADS Bagamoyo, SUA Morogoro, SUZA, Tumaini University (DSM campus), UDSM and Zanzibar University. The study findings indicated that students spend their spare time in library and read print and e-newspapers, books and magazines, and access social media that cover aspects such as sports, economic, technological and social issues. They are encouraged to use the library and read by their desire to learn new aspects of life, expanding their vocabularies, improving library use and reading skills, and acquiring new information. The findings also indicated that students spend their time watching TV, talking to friends, listening to radio, playing and watching games. Furthermore, it was revealed that too much academic work, limited internet connection and family responsibilities are among factors that inhibit their library use and reading habits. The study recommended that academic libraries should work out means to create conducive library use and reading environment for students by stocking more library resources, conduct more outreach programmes to attract more readers, create library and reading clubs at schools to empower students in education at large and launch TV programmes which will attract more students to read and learn when undertaking extracurricular activities.

Utilisation of library information resources by the individual traits of science employees and research researchers in a college domain: a contextual investigation of Bharathidasan University, Tiruchirappalli, Tamilnadu was done by Ranganathan (2019). The examination distinguished relative significance of library information resources among the science employees and research researchers in a University situation. The relative importance of information

sources among the science faculty members and research scholars and on the basis of statistical tests concluded that the personal attributes of scientists such as designation, gender, age, qualification, subject, experience, nature of work and nature of research in a university environment have bearing on the use of information resources. The study revealed that scientific periodicals, abstracting and indexing journals, Bibliographic databases and Newspapers were the resources of information which were the most frequently used. The outcomes demonstrate that position and instruction are great indicators of data use while expert experience has little power in clarifying varieties in data source use.

Opara (2010) determined the individual and financial determinants of horticultural data use by ranchers in the agricultural development programme (ADP) zones of Imo State, Nigeria. The examination has appeared instructive capability, conjugal status, pay, and favored media contributed altogether to the farmers' utilisation of agrarian data. Then again, social interest, dependence on indigenous learning, tenure status, sex, size of land developed, long stretches of cultivating knowledge, part-or full-time cultivating, and age, done by not associate with farming data use. In any case, the twelve individual and financial factors, when taken together were observed to be powerful in foreseeing farmers' utilization of horticultural data. The accompanying suggestions were made dependent on the discoveries of the investigation. The critical need to strengthen grown-up proficiency battle among the rustic tenants, more consideration ought to be paid to the financial states of the little scale ranchers, credit foundations ought to be set up for ranchers. Advances ought to be delicate and method of reimbursement appealing. Absence of credit offices restrains the farmers' capacity to access inputs, endowments ought to be re-acquainted with empower the ranchers access homestead inputs, especially compost, there is a requirement for change operators to distinguish and utilize farmers' favored media of data conveyance as this, is probably going to encourage their acknowledgment and utilisation of data introduced to them.

As indicated by Ugwu (2008) individual qualities have an impact on the use of library information resources by sociology specialists at the University of Nigeria, Nsukka. The accentuation was on understanding the propelling impacts that drive data looking for conduct instead of on the utilisation of specific frameworks. The investigation depicted the individual attributes of sociology specialists and relates them to the recurrence with which they use library information resources. The individual attributes concentrated included instruction, position, and

experience, which are estimated by capability, rank, and long periods of work involvement or length of administration separately. The investigation found that specialists in the Social Science Faculty at the University of Nigeria, Nsukka appraised wellsprings of data by the recurrence of utilisation. Source use was positioned by mean reactions and this uncovered differential utilisation of sources by sociology analysts. The information uncovers that the use of library information resources is the consequence of a mind-boggling set of cooperations among different factors, each with contrasting ability to clarify varieties in data source use.

The author further stated that individual qualities of specialists, for example, instructive dimensions, long stretches of expert experience, and position assume changing jobs in clarifying such varieties. Dimensions of training and position were noteworthy in clarifying the change of almost every one of the sources. The long stretches of expert experience had next to no power in clarifying the variety in source use. There are additionally different variables that may influence data source use, including mental characteristics, issues experienced in looking for data, availability, and cost. The F-values for certain sources were not noteworthy. To satisfy the needs of the data age, we should take a gander at the numerous elements that influence data use. Data models could be worked to address this issue dispassionately. The consequences of this examination can help loan comprehension to data source use college analysts, in Nigeria and somewhere elsethe individual and financial determinants of horticultural data use by ranchers in the agricultural development programme (ADP) zones of Imo State, Nigeria.

2.6 Information literacy skills and library use by undergraduates

In recent timesowing to changes in the society information has become a treasure and as result information literacy is now an essential proficiency for undergraduates to acquire. It becomes imperative for undergraduates to become lifelong learners, and to acknowledge that information literacy is a supporting generic skill for effective learning in institutions of higher learning (Baro 2011).Ojo and Akande (2005) investigated three hundred and fifty student's access, usage and awareness of electronic information resources (EIR) at the University College Hospital (UCH) Ibadan, Nigeria. The findings indicated that the level of use of the EIR is not much, nevertheless, the main difficulty students encountered was deficiency in information retrieval skills for accessing e-resources, consequently the usage of e-resources by the medical students was less than average.

Kumar (2010) stressed that below average number of the learners and academic staff of four technical institutes at Rohtak, Haryana, Pakistan showed lack of awareness of the search methods and tactics for instance, keywords, truncation marks and Boolean operators. Nazir and Shabir (2016) conducted a survey at a horticulture and forestry university in Pradesh, India to ascertain the most common places, devices, searching tools and methods used by undergraduates while accessing electronic information resources (EIRs). The findings of the survey revealed that Google is the most prevalent search engine used by all the researchers and students of the institution with the entire university community showing preference for Google search while Yahoo was the secondary choice. Nevertheless, the point that preponderance (79.8 %) of the patrons search for information using title method and by keyword/subject term (58.6%) is at variance with the results which authenticate that keyword method is the popular most search method all over the academic world. The patrons are not competent with most of the advanced search methods and explore information using simple search slots as an alternative. Below average number of the respondents (44%) were proficient in using Boolean operators (AND/OR/NOT)

Ivanitskaya, Hanisko, Garrison, Janson and Vibbert (2012) employed a qualitative method to get students' thoughts on building health information literacy skills at Central Michigan University. The findings indicated that students planned to acquire Internet skills, Information evaluation skills and library skills. The researchers discovered that majority of the students would ask for assistance from library personnel and also intend to acquire the skills by practicing on their own. The findings indicated that the students preferred to ask librarians to teach them information literacy skills to asking assistance from their colleagues and professors. The researchers concluded their study by stating that it is very imperative to provide health pre-professional students with resources that will improve their skills by personal learning, remote access to library personnel, and training on the intricacy of developing good literacy skills with collaboration among students, librarians, and academic staff.

Bell (2011) examined the effect of information literacy instruction on the emotional aspect of students' understanding of using web-based and library-based research at the start and completion of a one hour compulsory, two months information literacy course. Indication from the findings was that there was a slight improvement (9%) on library-based research while the web-based research remained the same and positive throughout the time of the survey. The

researcher concluded that information literacy education can help the students to have self-efficacy and positive inclination towards library usage. Biddix, Chung, and Park (2011) conducted a survey on 282 college students' online research behaviour and found that Internet is the first search tool used by students when conducting researches, however, they were using the Internet for their own researches and initial process of academic researches. The study revealed that students were using the Internet considerably. Recommendations were made by the authors that students should be provided training modules instruction on openly available Internet sources, and collaborating with sellers to ensure easy usage of databases.

Cooke and Rosenthal (2011) examined undergraduates' usage of books after library instruction at Florida Gulf Coast University by analysing citations used in composition papers during their 100-level during this period the students may have gone through library instruction or not. The findings revealed that the library research training had impact, the respondents who underwent library instruction cited more sources compared to their counterparts who have not gone through library research instruction generally. Comparatively, students in higher-level in different departments exposed that half of the citations and proportion of scholarly citations improved with the level of the class and they preferred the usage of books to other library information sources at all levels. Anafu and Filson (2014) concluded their research on encouraging information literacy among undergraduates of Ahesi University College Ghana by stating that information literacy is an essential constituent of university libraries since it plays a vital role in educational attainment and lifelong learning. As a result, the researchers contended that paucity in information literacy skills has an adverse influence on educational attainment, in addition to individual and specialised improvement. The researchers concluded that preponderance of the students are unable to access appropriate information due to inadequate skills such as identifying concepts, techniques of searching, information resources, correct usage of library catalogue and moral and lawful use of information. The researchers asserted that the deficiencies exhibited by majority of the students could have adverse influence on the teaching and learning processes.

According to Anunobi and Udem (2018) postgraduate students had moderate degree of information literacy skills. The study focused on competencies in information literacy of LIS postgraduate students in universities in South-east, Nigeria concentrating on the information and aptitude level. 72 postgraduate students which incorporated every one of the 2011/2012 PhD

and Masters certificate learners from the Departments of LIS in Nnamdi Azikiwe University, Awka and University of Nigeria, Nsukka. The real discoveries of the examination uncovered that LIS postgraduate learners had data proficiency learning since the measure dependent on understanding the requirement for data, how to find, assess and usage data have normal rate scores of 95%, 87%, 82% and 88% individually. In any case, the information literacy learning controlled by LIS Postgraduate learners in Nnamdi Azikiwe University, Awka (NAU) contrasted altogether from those controlled by LIS Postgraduate learners in University of Nigeria, Nsukka (UNN); LIS postgraduate learners had moderate degree of data proficiency aptitudes as their degree of information literacy aptitudes as estimated dependent on capacity to find and get to, assess and use data has general mean rating of 3.34. Be that as it may, the abilities contrasted altogether between LIS Postgraduate learners in NAU and UNN. In light of the discoveries, it was suggested that progressively reasonable part of data proficiency ought to be utilised through learners industrial training and temporary job, and LIS educational plan ought to be improved particularly with reference to ability of acquiring relevant information skills.

Bapte, (2019) wrote on information literacy instruction to ascertain the role of professional librarians. The article was a survey of information literacy (IL) viewpoint in the present scholarly point of view. The paper talked about how from the customary bibliographical guidance, it has been progressed as an apparatus for library and data experts to streamline the calling and their position. The article brings up the normal result of IL must be accomplished with the community oriented undertaking of library experts and instructing staff. The examination featured models of data proficiency guidance alongside brief review of information literacy content. The scholarly deceptive nature and the responsibility of scholastic libraries were likewise clarified quickly in the article. The paper placed that IL is the essential pre-imperative of deep rooted learning, the article admonishes global, national and governments ought to have data arrangements and techniques with accentuation on evaluation and the writer recommended that library experts should assume a major role in broadening subjective capacities of the patrons to make IL to be an incredible achievement.

The impact of information literacy skills in using Electronic Information Resources was also studied by Odede and Zawedde (2018). The investigation concentrated on the different dimensional builds of information literacy in utilisinge-resources. The point of the examination was to disentangle the connection between data proficiency aptitudes and the utilisation ofe-

resources. The intricacy of e-resources necessitates that one has information literacy abilities to adequately and effectively utilise e-resources. A clear study approach was utilised for the examination utilising quantitative strategy for information accumulation. The information was broken down utilising SPSS. The focus on populace for this examination was 115 postgraduate learners in three colleges. The postgraduate learners involve Masters and PhD learners as it were. The investigation is guided by the Kuhlthau's (1991) data search procedure model. The discoveries uncovered that the utilisation of e-resources is dictated by competency in the different dimensional builds of information literacy. Discoveries further demonstrated that apparatus proficiency, basic education, social-auxiliary proficiency, rising innovation proficiency, and distributing education aptitudes are required in utilising e-resources. The examination inferred that there is a connection between data proficiency aptitudes and the utilisation of e-resources and in this way prescribed the requirement for colleges to present projects, for instance, information literacy instruction programs, workshops, classes and others that would build data proficiency abilities of learners to guarantee viable and productive usage of e-resources. The investigation gave new knowledge into dimensional develops of data proficiency required in utilising e-resources. The dimensional builds of information literacy, as opined by the researchers are of most extreme significance in the utilisation of e-resources. The researchers contended further that in this new data and media conditions, for instance, the web, various e-resources are accessible, be that as it may, a fundamental necessity to adequately utilise these resources, is to have adequate information literacy skills as established by the study.

Developing information literacy skills among rural area college students in India require training since from their background, they lack information literacy (Vijayalakshmi, Thirumagal, and Mani, 2018). In a study at Tirunelveli District Tamilnadu which was planned to investigate the information literacy aptitudes of the learners at provincial zone school and to discover the elements which have sway on these abilities. Information literacy aptitudes of the learners were broken down by their data search and recover capacity, utilising email, Subject E-Mail gathering, Document Sharing, Downloading, Open Access Resources. The study revealed the relationship between Native areas of the students and at Sri Sarada College for Women arranged in the rustic region of Tirunelveli District, Tamilnadu. Among 200 surveys disseminated, 175 questionnaire that was self-developed were recovered. Information was investigated with the unmistakable and inferential examination technique, including ANOVA

Test, Paired Sample T-Test utilising SPSS programming. information literacy skills of the students and found that Native area of the students has important extent for affecting these skill levels. After that, according to the results, training was given to these students to impart information literacy skills. The results showed that students got awareness and learnt some extent to use internet for their academic purpose and also for their lifelong learning process. The conclusion of the study was that imparting information literacy skills among college students especially among rural area college students along with their regular study is very much important for building knowledge, lifelong learning skill and this is basis for empowered society.

Comparatives investigation of information literacy levels and information seeking behaviour amongst educators in a number of public and private Junior secondary schools in Ilorin metropolitan area was conducted by Sulaiman, Adeyemi, and Sulaiman (2018). The investigation received the enlightening review research structure. The stratified testing strategy was utilised to choose one hundred educators from private and open junior auxiliary schools in Ilorin city. The instrument utilised for information was surveyed. One hundred (100) questionnaire that was self-developed were regulated and Ninety-four (94) duplicates of the survey were finished, returned and utilised in the investigation which speaks to (94%) reaction rate. Three research questions were replied and information was examined utilising unmistakable insights such tables and rates and t-test for speculations investigation. The outcome demonstrates that the two educators in broad daylight and the private junior auxiliary school can perceive a requirement for information resources, capacity to recognise a potential data asset, capacity to find and access information resources and capacity to compose, apply and impart data. In any case, the finding of the investigation additionally demonstrates that in private junior auxiliary school web perusing was their real data looking for conduct contrasted with open junior optional schools. Along these lines, educators in junior auxiliary school need high proficiency of information abilities dependent on their data looking for conduct. Proficiency of information is viewed as a significant component in instructive and proficient settings specifically, the lesser optional school. The consequence of this examination study has raised a few ramifications for the usage of information literacy abilities projects to improve the nature of educators in data dispersal.

Hinchliffe, Rand, and Collier (2018) reviewed the anticipated information literacy misguided judgments of first-year undergraduates. The creators feeling that prompted the

examination was that the way toward learning incorporates not just achievement in creating information, aptitudes, and capacities yet additionally missteps and mistakes that obstruct such achievement. They contended that in any area of learning, educators will have built up a feeling of the run of the mill blunders students make; in any case, there has been no orderly examination and documentation of unsurprising mistaken assumptions in Proficiency of information learning in advanced education. The investigation fill hole through an examination of overview reactions and center gatherings, the analysts distinguished nine information literacy misinterpretations and built up a model system of Proficiency of information misguided judgments. The article closes by proposing learning results that could counter the misguided judgments. The consequences of this investigation uncovered that curators see first-year learners to have misguided judgments identified with the library, data get to, the examination procedure, and information literacy itself. Taking care of these various misguided judgments will guarantee that first-year learners don't continue in incorrect convictions that will hinder their prosperity with school level research. In spite of the fact that the recommended learning results that address the misguided judgments do not include a complete proficiency of information educational plan, they can address boundaries that first-year learners involvement in creating hearty proficiency of information and abilities.

Thwala (2019) studied the information resources and services used by undergraduate students at University of Eswatini, Kwaluseni, Swaziland on the assumption that first year students at university do not have adequate knowledge on the available library resources and services and also lack basic information search skills, which results in poor and underutilisation of these resources and services. This study reviewed large body of research to establish the extent to which undergraduate students at universities utilised library resources and services to identify the information-seeking experiences; describe the types of library resources and services used; and describe the different information-seeking behaviours. The analysis showed that students had information needs to support their academic work and relied more on library books and journals with little use of electronic resources. The findings showed that students done by not use certain library services because of inadequate knowledge. They preferred using easier information search strategies, thereby making their information-seeking efforts less-effective. It was recommended that lecturers should consider giving students assignments that would require the use of electronic resources since it has been revealed that most students do not use electronic

resources. The library and the departments should also design a subject oriented information literacy skills programme to be taken at different information level.

Proficiency of information of undergraduates Vietnamese students saw from the point of view of social setting was completed by Wiorogórska (2018). The examination was on Proficiency of information (IL) of college learners, directed at the University of Danang. Members were 353 college learners. Information was gathered with a paper review comprised of 12 open-finished inquiries. At that point, semi-organised top to bottom meeting technique was connected to improve the data left by respondents in surveys. The investigation added to the collection of writing on IL in Vietnam by investigating the data aptitudes and data conduct of the gathering of college learners. It demonstrates the primary limitations and difficulties being developed of IL training and underlines a moderate change in Vietnamese scholarly community that restrains moves to be made to build up an IL instructive idea at the colleges. Introductions of study results are improved with the depiction of IL activities attempted in Vietnam up until this point and with references to social setting and foundation in advanced education that may impact both IL activities of approach producers and data abilities and data conduct of clients.

Ahmad and Widen (2018) asserted that information literacy is a serious aptitude in the quest for learning and that past research has infrequently talked about proficiency of information from the language decent variety point of view. The paper satisfied the exploration hole with the primary point of seeing how language assorted variety in work environment can impact the acknowledgment of proficiency of information. A subjective report including 21 top to bottom meetings were led in a Finnish worldwide association with every one of the interviewees originating from center and lower the executives in various regular useful territories. Meetings were deciphered verbatim and broke down after the two-phase inductive coding technique. The information investigation demonstrated that language decent variety in associations impacts Proficiency of information in two different ways. To start with, it impacts data understanding and assessment capacity of workers. Investigation demonstrated that representatives experienced difficulty understanding and grasping data while connecting with associates in non-local language.

Ahmad and Widen (2018) further expressed that as learning concentrated work requires broad data sharing between representatives, comprehending data in the setting of business-related issues is critical. In any case, language contrasts described by language competency and

semantic logical varieties make issues for workers in their data perception process. Another effect of language decent variety was on data get to. Because of language contrasts, workers were not ready to get to data created in different dialects. Albeit English was the corporate language, messages and nearby reports were regularly created in different dialects. Thus, workers' ability to access such reports were restricted. End and Implications This paper demonstrates that working environment attributes, for example, language assorted variety, can render customary information literacy aptitudes deficient. It demonstrates that Proficiency of information aptitudes created and rehearsed in monolingual situations are insufficient to explore in data scene of the etymologically various working environment. Indeed, even data proficient people may discover their capacity to access, share, and assess data compelled because of the multilingual nature of the data condition. It has suggestions for the instructive setting. The Proficiency of information projects should uncover and prepare learners to multilingual data correspondence. In an authoritative setting, data experts and administrators must record for the language contrasts in the advancement of positive data culture in the association.

2.7 Information literacy skills and library anxiety of undergraduates

According to some researches in the library discipline information literacy instruction has a good influence on students' skills and educational attainment. Undergraduates who partake information literacy training has shown a smaller degree of library anxiety (Van Scoyoc, 2003) and students with high achievements tend to have gone through information literacy training (Smalley 2004, Gross and Latham 2007). SeyyedHosseini et al (2014) investigated the relationship between library and emotional intelligence of students in two universities in Bushehr municipality and discovered that some factors like deficiency in the essential skills among patrons to use electronic equipment such as printers, scanners and inability of the students to make use of recent technology such as RFID security systems and online catalogs consequently increase library anxiety relating to mechanical barrier.

Gross and Latham (2007) examined the association between skill level, self-estimates of skill, and library anxiety on attaining information literacy. The findings revealed that competency theory was validated by predicting the association that existed in information literacy skills and self-assessments. This study could not establish any relationship between information literacy skill scores and total library anxiety scores. However, a substantial adverse association that exist in information literacy marks and the subscale knowledge of the library pointed that an

increase information literacy marks, anxiety scores associated with inadequate understanding of the library decrease. The researchers recommended that customary information literacy training may possibly not be efficient with students who are not proficient and are not likely to perceive themselves as being in need or beneficiaries of this type of training. Haglund and Herron (2008) reviewed literature to investigate the association between library anxiety and information literacy skills attainment. Library Anxiety Scale (LAS) was the measuring instrument used to investigate the relationship that exist between students' abilities in the Information Literacy Test (ILT) and library anxiety. The findings indicated that library anxiety have the tendency of decreasing with higher scores on the ILT. There is no correlation between ILT scores and the experience of library anxiety as revealed by the LAS, even though the knowledge of the library aspect of the library anxiety established an adverse relationship with ILT which means the anxiety decreases as the scores increases.

2.8 Library anxiety and Library use by undergraduates

Many researches have established that library anxiety is one of the factors militating against library use by the undergraduates. Undergraduates perceived the university library as intimidating and research processes daunting for the reason that they have not acquired the rudimentary information skills. This threatening environment propels the patrons to ultimately experiment with different research techniques that restrict their capabilities in meeting their information requirements instead of asking for help. (Mellon 1986). Taylor (1990) also noted that after searching through library materials, the actual needs of a patron might possibly not correspond with the physical availability of library materials which may be because the patrons are unable to locate the information materials. Students at undergraduate level come across constraints like library anxiety, patrons' views of the library and the services provided may act as factors inhibiting the effective usage of the library.

Onwuegbzie, Jiao and Bostick (2004) confirmed that library anxiety at a very high degree may hamper graduate from using the library and consequently stop these students from completing their thesis. Onwuegbuzie and Jiao (2000) established that there is a substantial association between educational postponement and the measurements of library anxiety such as affective barriers, comfort with the library and mechanical barriers. Jiao and Onwuegbuzie (1999) asserted that foreign students who came from countries that are just advancing are faced with technological advanced libraries which are different from the library systems in their home-

based nations. Inability to use the new technologies in the library exposed the students to experience library anxiety. The findings showed that foreign students encounter difficulty in using the technological advanced libraries in the country where they are studying and this affirmed that they experienced high level of library anxiety in relation to mechanical barrier.

Mehta and Cox (2019), affirmed library anxiety exists among learners and placed that for this to be battled, the library ought to be a home far from home. The creator was of feeling that an ongoing concentration in scholastic library configuration is as a third spot: a home from home. Be that as it may, look into presently can't seem to investigate being at home and if scholastic libraries are dealt with like, and feel like home to learners. The model of Seamon's (1979) gives structure to understanding the characteristics related to homeless, over the five elements of rootedness, apportionment, recovery, at-easiness, and warmth. Utilising this system perceptions were made in two libraries utilising classifications identifying with "homeness". It was discovered that learners do act and feel comfortable in the library. More up to date library plans done by not encourage homeness more than more established structures. It is presumed that new library plans have the chance to make learners feel comfortable by offering adaptable spaces to make their own, places to withdraw from their work area, and fundamental courtesies.

The overview requested that members analyze the regions they would anticipate that scholastics should think about when making a perusing list; kinds of substance, organization, length, and format. The investigation at that point proceeded with reproducing a 45-minute session given to scholastic staff at the UW Learning and Teaching Conference and as a major aspect of the postgraduate certificate in learning and teaching in higher education, utilising surveying programming. The writers analysed how to urge instructors to boost the effect of their perusing records and increment library use and thought about the teaching method of perusing records, how to connect with learners with perusing and how faculty members and the library can encourage learners in utilising the resources accessible, drawing on best practice from scholastic partners at UW. The discoveries exhibit the absolute best scholastic commitment with perusing records, and the results for learner fulfillment, learning, and perusing propensities as estimated by the National Student Survey and individual module criticism. The investigation gave a viable delineation of how to support scholastics of the need to draw in and influence with perusing records. The examination's discoveries will be helpful to anybody wanting to further

draw in scholarly partners with web-based perusing list frameworks or planning to inhale new life into offices where eagerness is hailing.

Taylor (2018) so as to quell learners' library anxiety led an examination on web-based perusing records, urging staff commitment to improving learner Proficiency of information. The author further stated that numerous organisations presently use programme to give internet perusing records. The researcher portrayed that at the University of Worcester (UW), Talis Aspire was embraced, and the college has endeavoured to draw in both staff and learners with the asset. While utilisation and criticism have been great, and numerous scholastics have turned out to be proficient at refreshing and distributing their rundowns, there is work to be done in responding to the above inquiries and guaranteeing that scholastics draw in with perusing records at something other than a surface dimension. Research demonstrates that appropriately utilized, perusing records can help advance Proficiency of information and help instructors speak with learners (Brewerton 2014). Close to proficiency of information sessions, they can likewise assume a key job in helping learners to maintain a strategic distance from library nervousness (Van Scoyoc 2003). However numerous scholastics stay careful about giving an excessive amount of data, spoon nourishing learners and not enabling the learners enough opportunity to investigate their very own points, or, at the other outrageous let their rundowns lie decrepit as "static records of the mentor's very own perusing knowledge" (Stokes and Martin, 2008).

2.9 Personal factors and library anxiety of undergraduates

Personal factors of undergraduates may have effect on the level of library anxiety encountered by the undergraduates. Undergraduates may come to the library touse information in various formats the process of research could possibly make undergraduates information anxious. Enormity of information in which undergraduates can search through can also be an information overload. Researches done to investigate the characteristics of information-anxious students revealed that being information-anxious could stemmed from student being young, being a non- English language speaker, working while still in school and occasional visits to the library and information settings . Conversely, of all types of academic-related anxiety that occur in academic settings, information anxiety seems to be predominantly high (Blundell and Lambert 2014).

McPherson (2015) did a pilot study to determine the existence of library anxiety amongst undergraduates in the faculty of Humanities at the University of West Indies, Mona campus, the

findings of the research indicated the students experienced of library anxiety of temporary period because of both individual and institutional factors. Some of the individual factors comprised of inadequate appropriate information literacy skills, lack of prior library knowledge, lack of knowledge of the capability and library information retrieval systems and inability to navigate themselves within the library settings. Institutional factors comprised of the comparatively big dimension of the library, the design and organisation of floors and library stock, absence of computers and inadequate suitable signage.

Lu and Adkins (2012) examined the level of library anxiety amongst fifteen international students in USA using an adapted version of Bostick's (1992) library anxiety scale. The findings indicated the highest origin of library anxiety were affective barriers and barriers with staff while mechanical barriers had lesser effect on the library anxiety level experienced by the respondents. There was no significant difference in the level of library anxiety experienced by both gender. Khadivi (2008) did a research on the effect of library and e-resources anxiety among students at the Isfahan University of Medical Sciences. The findings indicated that the familiarity of students with library and electronic resources were below average and that there was no meaningful difference between the library anxiety and the gender of the students. However, age has a meaningful effect on library anxiety which increased with a decrease in students' age. Hariri and Nemati (2009) evaluate library anxiety among students of Collage Rehabilitation Science in Iran University of Medical Sciences and the findings showed that library anxiety due to staff barriers, affective barriers, library knowledge and mechanical barriers were around average. The study further revealed that male students experienced greater library anxiety compare to their female counterparts.

Jokar and Taherian (2008) conducted a comparative study of library anxiety between students of Educational Science and Psychology College in Shiraz University. The findings from the study showed library anxiety to be below average and that there was no meaningful variance between the library anxiety of both genders. The findings showed that the respondents had made use of libraries before entering the university experienced less library anxiety compared to those who had not. However, the library anxiety was significantly higher in librarianship students compared to students of other disciplines and also in masters students compared to bachelor students. Anwar, Al-Kandari and Al-Qallaf (2004) investigated library anxiety among university students in Kuwait. Results showed that library anxiety experienced by the respondents was

average and no meaningful relationship between gender and library anxiety was reported. Ashrafi-rizi, Sajad, Rahmani and Bahrami (2014) conducted a study on effect of personal factors on library anxiety of students in Isfahan University of Medical Science and Shiraz University of Medical Sciences. The results showed that the respondents' scores from both institutions in library anxiety was above average. The findings from the study also indicate that age and gender had no significant influence on the library anxiety of respondents of Isfahan University of Medical Sciences, nonetheless gender had a significant influence on library anxiety of students of Shiraz University of Medical Sciences while age had no significant influence.

2.10 Information literacy skills and personal factors of undergraduates

The results from various researches done recently on assessment of information literacy skills across the globe were disappointing. Students seem to strongly depend on Internet search engine for getting the information they need. Information literacy is still an important and essential skills to be learnt even among the technological savvy students. (Salisbury and Karasmanis 2011). In addition, only an insignificant number of students could adequately use search strategies such as Boolean operators, evaluate the reliability and authenticity of information source, and distinguish between citations and reference sources (Ladbrook and Prober, 2011). In the same vein, a research done in two countries (United Kingdom and United State of America) by DaCosta (2010) revealed that about average number of lecturers perceived that students who have completed their study could use the seven information literacy skills emphasized in the SCONUL assessment.

Schubert, Shaheen, Intan, Xue, Yun-Ke, Brendan and Yin-Leng(2011) evaluated the information literacy competency of secondary school students in Singapore, and reported that female students recorded a higher score compare to their male counterparts. Level of study of students was not a factor influencing the level of information literacy skills. However, the stream of study (Express stream, Normal Academic stream and Normal Technical stream) had substantial influence on students' ILS scores. Students from the Express stream had higher marks compared to students from Normal Academic and Normal Technical. The results from the study further show that the variances were considerably triggered by skills relating to task description, information seeking, location and access and information usage. The researchers affirmed that the students' backgrounds could also have substantial influence on their scores in information literacy which implies that the richer and influential the students' parents are the higher the

marks obtainable by the students. Accessibility to Internet at home by students of wealthy parents enabled them to score higher particularly in skills associated with information seeking, location and access and information usage.

Ogunlana, Oshinaike, Akinbode, and Okuneye (2013) examined students' perception, attitude and experience as factors influencing learning of information literacy skills in public universities in Ogun state, Nigeria. The findings indicated that there is no substantial change in how both gender perceived information literacy skills. The result also shows that students' perception is not the only factor influencing learning of information literacy skills. The attitude of students is a significant predictor of information literacy skills followed by perception and experience. The researchers asserted that owing to this reason, students face circumstances in their own peculiar way emanating from their personal experiences and understanding and with different individual characteristics, which subsequently have impact in their attitude and opinion about acquiring knowledge in addition to proficiencies and capabilities and consequently this bring about differences in the problem faced by individuals.

Emwanta and Nwalo (2013) evaluated the effect of computer literacy and academic discipline on electronic resources usage by undergraduates in universities in South-west Nigeria. The findings showed that electronic resources use was considerably low and that academic discipline has no significant effects on electronic resources usage. The low usage of the electronic resources was due to fact that the undergraduates are not aware of the availability of the electronic resources in their university library. Computer literacy had substantial effect on electronic resources usage, on the contrary, academic discipline had no effect whatsoever. There are some factors militating against the usage of electronic resources which ranges from absence and unreachability of electronic resources, absence of essential computer use skills and electricity fluctuation. The findings also revealed that availability of electronic resources was extensive to meet the information requirement of the undergraduates irrespective of their academic disciplines, but many of them did not have the ability to use them due to low computer literacy skills or they are not aware of the availability and its importance. The researchers concluded that computer literacy had effect on electronic resources usage by the undergraduates in the two universities studied. Marvel (2015) did a survey on students' opinion of individual information literacy skills and use of information skills at Casper community College at the University of Wyoming USA. The findings from the study indicate that as students move further

through their academic programs, they are more likely to score higher on this information skills assessment, a concept consistent with the constructivist theory whereby students build upon their own knowledge base using their critical thinking and problem solving abilities. The result indicated that students tend to overestimate their information literacy abilities.

Malliari, Togia, Korobili and Nitos (2014) assessed information literacy skills level of Greek high school Thessaloniki, Greece and found that most of the students have previous knowledge of how to use computers right from their elementary schools. This result indicates that secondary school students in Greece are reasonably conversant with information technology. Nevertheless, from the findings of the study about one third of the respondents used the Internet for both personal and academic purposes while more than average of the respondents solely used the Internet for personal purposes. The secondary school students mainly perceived the Internet as a channel of communication. The respondents affirmed that they prefer Internet to encyclopedias, books and other published resources. The finding showed that the students did not seem to rely much on libraries; many of the respondents gained admission into higher institutions of learning without the previous knowledge about using the library. The results indicated that most of the students have the capability of getting information from the Internet, which is followed by the ability to evaluate results from the Internet search, were able to cite sources of information and also able to use reference materials. However, the respondents cannot effectively use other search techniques, especially the respondents were not conversant with advanced techniques and evaluation of retrieved sources

Liu and Sun (2012) did a study on information literacy skills of science and engineering undergraduates at Taishan University. The findings showed there is occurrence of gender difference in the information literacy domain. The result showed that there is a substantial difference in the marks scored by both the male and female respondents in information awareness, information proficiency and information morals assessments. The results showed that male respondents scored higher than their female colleagues. The results revealed that male students are more successful in information literacy skills (ILS) than female students and the researchers affirmed that female students are usually more cautious about making use of recent technologies. The researchers concluded by recommending that lecturers should minimise gender difference of information literacy and also use new pedagogies in training the students to enhance the information literacy proficiency of the learners. Lecturers should take into

cognizance the female students by placing more emphasis on training them to overcome the existence of gender differences in information literacy. Lecturers should give extra consideration to female students on information awareness, information proficiency and information morals.

Influence of information literacy skills on students' academic achievements in Bangladesh was done by Banik and Kumar (2019). The researchers investigated the degree of academic achievements and information literacy skills of undergraduates in Bangladesh. Furthermore, the examination analysed the influence of information literacy skills on academic achievements of the respondents. To accomplish the goals, the researchers utilised essential information gathered from 325 learners and utilises a few factual and econometric strategies. The investigation initially utilised information literacy aptitude record to quantify the degree of learners' data proficiency ability and furthermore, utilised a straight relapse assessed by OLS technique to inspect the effect of data proficiency expertise on learners' scholastic execution. The investigation found that the greater part of the learners' Grade Point Average (GPA) was medium standard which extended somewhere in the range of 3.01 and 3.50 and the degree of information literacy aptitude is lower at the range of 10 and 20. Moreover, the examination likewise found that review hour, family salary, class participation, past scholastic outcome and data proficiency expertise were the noteworthy variables which affected learners' scholarly exhibition. Explicitly, the examination found that learners' GPA might be expanded by 0.012 if learners' data proficiency ability was expanded by one unit.

Kim (2018) explored the basic relationship among computerized education, learning methodologies, and center skills among South Korean undergraduates just as the gathering contrasts between these factors relying upon individual qualities. Information investigation was directed by relationship examination, autonomous example t-testing, and structural equation modeling. Participants were 916 college students from 10 colleges in South Korea. The results showed that no difference between groups existed in digital literacy and core competencies; however, a group difference existed in learning strategy, digital literacy had a direct effect on core competencies and learning strategies had an indirect effect on the influence of digital literacy on core competencies; and digital literacy can enhance the effect of core competencies when mediating learning strategy. The study suggested areas for future research, including developing digital technology-enhanced, competency-driven learning resources that account for the effects of cognitive, metacognitive, and resource management; the relationship between

digital literacy and core competencies of learner characteristics such as attainment objective placement, style of learning, and academic self-efficacy; the effect of individual digital technologies on core competencies based on individual learning strategies through experimental and quasiexperimental designs; and qualitative studies on employing digital technologies and learning strategies.

2.11 Theoretical framework

The theoretical framework for this study was hinged on the Competency theory, Theory of Constructivism, and Mellon Ground Theory of Library Anxiety. Formalisation of The Concept of Constructivism was ascribed to Jean Piaget. Piaget (1967) articulated mechanisms by way of which knowledge is internalised by students. He proposed that through approaches of accommodation and assimilation, individuals assemble new information from past understanding. As soon as people assimilate, they incorporate new knowledge into an already current framework without changing that framework. This will occur while individuals' reports are aligned with their internal representations of the world, but may additionally arise as a failure to exchange a faulty information. For instance, they may not have the awareness of things going on around them, may misconstrue contribution from others, or may also decide that an event is a fluke and is therefore unimportant as facts about the world. In assessment, whilst individuals' experiences contradict their inner representations, they will trade their perceptions of the studies to suit their internal representations.

According to principle of Constructivism formalised by Piaget (1967), accommodation is the manner of reframing one's mental representation of the external global to align with new experiences. Accommodation may be understood because the mechanism by way of which failure results in learning: whilst a person act on the expectation that the arena operates in one way and it violates the expectancies, such a person regularly fail. However through accommodating reframing the version of the manner the works, such character learns from the individual failure or others failure. It is far important to observe that constructivism is not a specific methods or techniques. Constructivism is an idea describing how actual learning happens, no matter whether or not learners are using their studies to recognise a lecture or following the commands for building a version airplane. In each case, the theory of Constructivism indicates that newcomers construct knowledge out of their studies.

Nevertheless, constructivism is often associated with pedagogic procedures that sell lively mastering, or gaining knowledge by doing (Piaget, 1967; Tobias and Duffy 2009).

Information literacy skills need to be learnt by undergraduates to be information competent. The all-inclusive gaining knowledge of concept of constructivism describes the technique of creating that means from a ramification of sources and studies that is critical to records literacy competence. The Boyer Commission Report (2003), *Reinventing Undergraduate Education*, recommends learning strategies that require students to engage across curricula in actively framing significant questions, to research or creatively explore to find answers, and to hone the communications skills necessary to convey the results. (Hu, Scheuch, Schwartz, Gayles and Li 2008). As the foundation for existence-long mastering and private empowerment, statistics literacy capabilities are deeply supported by means of the principle of Constructivism and its conceptual framework that know-how is actively constructed out of the learner's reviews within the international. Constructivism also embraces the role of affect in its standards as freshmen are more likely to come to be cognitively engaged while they may be getting to know something which has personal meaning. The Association of College Research Library (ACRL) (2008) statistics Literacy requirements for higher training integrate self-directed learning, lively engagement at the a part of the learner and the construction of latest expertise from a ramification of assets and studies into every of its five requirements. The ACRL (2008) standards for statistics literacy are broadly commonplace and utilized in institutions of better studying at some stage in the united states as the idea for information literacy instruction and assessment.

Competency theory was proposed by David Dunning and Justin Kruger in 1999. This theory is cognitive bias in which exceedingly unskilled people are afflicted by illusory superiority, mistakenly assessing their potential to be a good deal higher than is accurate. Dunning and Kruger attributed this bias accurately. Their studies additionally showed metacognitive inability of the unskilled to comprehend their own ineptitude and compare their very own capability. Incredibly skilled individuals may additionally underestimate their relative capabilities they may erroneously assume that obligations which might be easy for them also are clean for others. And they will incorrectly assume that their competence in a particular field extends to other fields in which they are much less in a position. Dunning and Kruger (1999) have postulated that the effect is the result of inner illusion in the unskilled, and outside

misperception inside the skilled. The miscalibration of the incompetent stems from erroneously approximating themselves, while the miscalibration of the distinctly equipped stems from erroneously approximating others. Dunning and Kruger proposed that, for a given skill, incompetent people will: fail to recognize their own loss of skill, fail to realise proper ability in others, fail to comprehend the volume of their inadequacy and understand and well known their personal loss of ability, after they are uncovered to education for that talent. Competency principle indicates that low-skilled students are unlikely to self-identify in both a study room or library context. They lack the meta-cognitive skills needed to comprehend the relevance of the teacher's or library's efforts to their personal context. Competency principle supports information literacy abilities.

Ground Theory of Library anxiety was proposed by Mellon (1986). Library anxiety principle describes college students as feeling so uncomfortable inside the academic library that this soreness impairs their capacity to engage in facts looking for obligations. Students who suffer library anxiety have a tendency to suppose that they lack skills that others have. In 1986, Constance Mellon, a professor of library technology in North Carolina, USA, coined the term Library anxiety. Mellon's landmark two years qualitative research look at, 6,000 college students at a Southern college inside the USA, discovered that seventy-five to eighty-five of the scholars described their initial response to library research in phrases of fear. Mellon (1986) used the phrase "library anxiety" to describe the emotions of soreness and fear a collection of undergraduate English composition college students defined when they had been beginning an records seek that required using the educational library. The have a look at found out 4 primary motives to explain emotions of library anxiety. The scholars have been intimidated by using the dimensions of the library, lacked expertise about where information is located, lacked knowledge about the way to start the studies manner and lacked information approximately about what to do.

Mellon (1986) similarly located that these negative feelings regularly overwhelmed college students to the point at which they couldn't use library effectively. It was discovered that the scholars had a feeling of inferiority after they have compared their library abilities to those of other students and those emotions of inadequacy were a source of shame that made them hesitant to ask library staff for assistance. Mellon informed faculty members that library anxiety is a phenomenon that affect learners which need that to be addressed. She likened library anxiety to

mathematical tension and test anxiety. She suggested library tension have to be acknowledged and the aggravating individual supplied with reports in which they might prevail. These theories will be the bedrock of this study to measure the influence of personal factors, information literacy skills and library anxiety on library use by undergraduates in federal universities in North-Central Nigeria. The strength of this study is to report the combined influence of personal factors, information literacy skills and library anxiety on library use by undergraduates. This study will test Library Anxiety Theory, Theory of Constructivism as well as Competency Theory to understand reasons why there is a decline in library resources and services patronage by undergraduates in federal universities in North-Central, Nigeria.

2.12 Conceptual framework

The conceptual framework for this study is hinged on the theoretical framework adopted for this research: Theory of Constructivism, Competency Theory and Library Anxiety Theory. This study deals with how personal factors, information literacy skills and library anxiety can influence library use by undergraduates in federal universities in the North-Central, Nigeria. The independent variables are personal factors, information literacy skills and library anxiety while dependent variable is library use. Information literacy skills are deeply supported by the Theory of Constructivism and its conceptual framework that knowledge is actively constructed out of the learner's experience. This study identified five constructs or elements of library anxiety based on Library Anxiety Theory which are affective barriers, barriers with staff, comfort with the library, knowledge of the library and mechanical barriers. All these elements contribute to the level of library anxiety of undergraduates according to Bostick (1992).

Undergraduates will need to optimally and effectively use their university library to improve, broaden their knowledge, increases their academic achievements and also to justify the establishment and funding of the libraries by the parents' institutions. Use of library by the undergraduates can be measured by purpose of use of library resources and services, frequency of use of library resources and services and location of use of library resources and services. The conceptual model (figure 2.1) showed that personal factors and information literacy skills will have direct influence on library use by the undergraduates respectively. Library anxiety will also have direct influence on library use by the undergraduates. Consequently, personal factors, information literacy skills and library anxiety will have combined influence on library use by

undergraduates. The conceptual framework indicates that there is interaction between the three independent variables. There is a link between personal factors and information literacy skills. There is a link between information literacy skills and library anxiety.

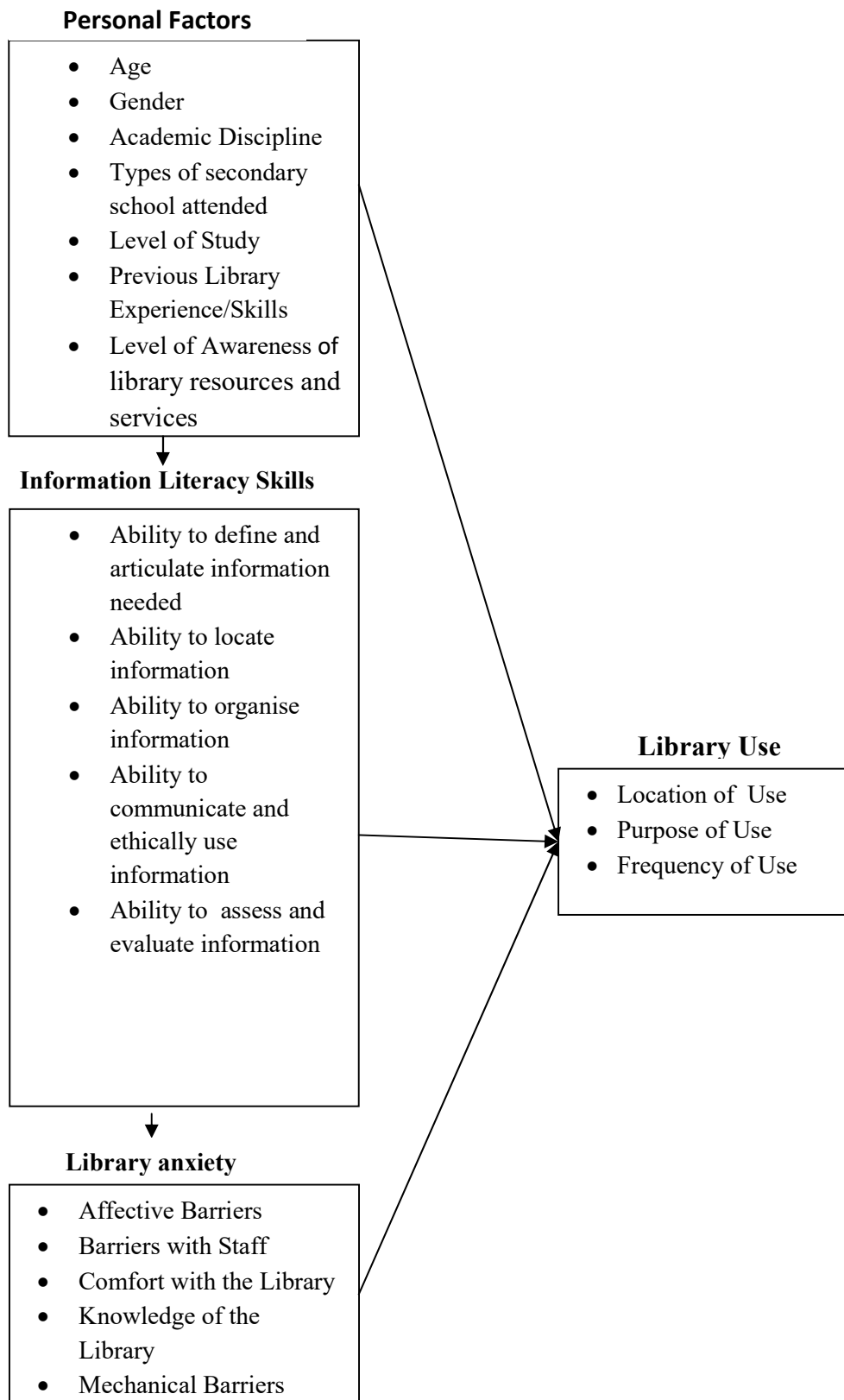


Fig. 2.1 Self constructed Conceptual Model on influence of personal factors, information literacy skills and library anxiety on library use by undergraduates.

2.13 Appraisal of the literature reviewed

The literature explored the variables in the study dependently and also the relationship between the variables through the aforementioned subheadings in the literature review. The literature reviewed indicated that personal factors of undergraduates contribute to the level of use of their university libraries. Level of study of undergraduates increases library use, library use by undergraduate increases at every successive year. Academic disciplines have significant influence on library use, basically, undergraduates in social sciences and humanities appear to use library more than those in sciences. Previous library experience and skills have influence on library use by undergraduates. According to the literature reviewed, many undergraduates had no idea and experience with large research libraries. Many undergraduates went to secondary schools that had no functional school libraries, so they have not acquired the skills needed to do meaningful research. Many of them lack awareness on the available resources and services in their university libraries. Age and gender were also identified as personal factors of undergraduates that influence library use. Although, some researchers argued that male undergraduates use library more than their female counterparts, some researchers were of contrary opinion based on the results of their studies.

Most undergraduates have low or lack information literacy skills and not just in Nigeria, but that lack of information literacy skills is a global phenomenon. It was also established that undergraduates who demonstrated low-level skills hold more inflated views of their abilities and the very high-level skills may tend to underestimate their performance. Undergraduates in most part of the world are not competent in using advanced search methods and this has resulted in search slot that is very simple. Most undergraduates rely on Google search instead of searching through the library databases. The literature established that library is the most frequently named sources of anxiety in undergraduates and that most undergraduates making use of library services encountered different levels of library anxiety. Five elements of library anxiety were identified which include affective barriers, barrier with staff, comfort with the library, knowledge of the library and mechanical barrier. All these elements of library anxiety contribute to the level of library anxiety of undergraduates. Also, high level of library anxiety may hinder undergraduates from using the library. Library anxiety increased when undergraduates are unfamiliar with the resources and technologies utilised in the search process.

The literature revealed that academic staff including library personnel' participation in understanding that undergraduates experienced some level of library anxiety would make available better sustenance to the undergraduates and would serve to ease library anxiety experienced by the undergraduates. However, many researches have not been done on library anxiety recently, hence, few recent publications that were cited in this study. A drastic decline in the use of the university library by undergraduates was indicated by the extant literature. Most of the undergraduates visit the library once in a week and some do not even use the library throughout their course of study. Most of the undergraduates visit the library not to use the core library services but to read their own books, lecture notes, making class assignments and for examination preparation. It was also established that decline or low patronage of core library services and resources is not just a Nigerian issue but a global one. However, it is clear from literature that not many researches have been done on the influence of personal factors, information literacy skills and library anxiety on library use by undergraduates in federal universities in North-Central, Nigeria as combined variables. Therefore, this work is necessary to fill the gap and to provide a reference point for future studies.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methods and procedures of analysis that were used in the study. It is discussed under the following sub-headings: the research design, population of the study, sample size and sampling techniques, research instrument, validity and reliability of the instrument, data collection procedure and method of data analysis.

3.2 Research design

The study adopted the descriptive survey of the correlational type. A correlation study is a scientific investigation of the associations between variables. The research design is chosen because the variables in this study cannot be manipulated and it also allows inference to be made from the results obtained from the field survey. Correlational designs encompass the methodical examination of relationships or associations that exist among variables, instead of direct cause-effect relationships. These methods are normally used to investigate changes that may occur in one or more variables in relation to changes in another variable(s). (Burns and Grove, 2005; Walker, 2005). This study established the relationship among personal factors, information literacy skills and library anxiety as factors influencing library use by undergraduates in federal universities in North-central, Nigeria.

3.3 Population of the study

The population of this study consists of all the undergraduates in all the federal universities in North-Central, Nigeria. The total population for this study is one hundred and sixteen thousand, two hundred and thirteen (116,213), (Table 3.1). North-Central also known as the Middle-Belt region is one of the six geopolitical zones in Nigeria. North-Central, Nigeria comprises of six states (Benue, Kogi, Kwara, Nasarawa, Niger and Plateau states) and the federal capital territory Abuja. According to National Universities Commission (NUC) 2016, there are seven federal universities in the North-central Nigeria, five of which are conventional universities and two specialised universities (Table 3.1).

Table 3.1 Population of the study

S/N	UNIVERSITY	ACRONYM	YEAR OF ESTB.	TYPE	NO OF UNDERGRADUATES
1	University of Ilorin, Ilorin	UNILORIN	1975	Conventional	20,084
2	University of Jos, Plateau	UNI JOS	1975	Conventional	18,733
3	Federal University of Technology, Minna, Niger	FUTM	1983	Specialised	13,000
4	Federal University of Agriculture Makurdi, Benue	FUAM	1988	Specialised	13,137
5	University of Abuja, Abuja	UNIABUJA	1988	Conventional	40,000
6	Federal University, Lafia, Nasarawa	FULAFIA	2011	Conventional	7409
7	Federal University,Lokoja, Kogi	FULOKOJA	2011	Conventional	3450
	TOTAL				116,213

Source: Universities websites 2016

3.4 Sampling technique and sample size

Multistage sampling technique was adopted for this study. The primary sampling units are all the seven federal universities in the North-central geo-political zone in Nigeria (Table 3.1). First stage was to purposively select the five conventional universities in the zone, namely: University of Jos, University of Abuja, University of Ilorin, Federal University, Lafia and Federal University, Lokoja. Conventional universities were selected to enable the researcher to select homogenous faculties and departments. Purposive sampling technique enables researchers to use their research experiences, preference or verdict in selecting the sample they think could represent the population. (Welman, Kruger and Mitchell, 2005).

The second stage was to select homogenous faculties in all the five conventional federal universities in the zone. Purposive sampling method was adopted to select three homogenous faculties from the five federal universities namely; Science, Humanities/Art and Social Science. Thus, making a total number of three faculties. (Table 3.2). The third stage was to select two departments from each of the three faculties using purposive sampling techniques. The departments are; Chemistry and Microbiology from Faculty of Science, English and History from Faculty of Humanities/Art, Political Science and Economics from Faculty of Social Science respectively. Thus, making a total number of six departments selected purposively.

The fourth stage, which is the final stage was the selection of five percentage (5%) of the total estimated population of the undergraduates from each department in the faculties selected (Table 3.2). Therefore, the sample size is seven hundred and ninety-seven (797). This is believed to have given a good representation of the various departments within the faculties. The sample selected was considered adequate for generalisation based on Nwana (1981), who stated that for population in many hundred, a researcher requires a sample size of twenty percent. However, for a population in few thousands, a researcher requires a sample size of ten percent and for a population of numerous thousand a researcher requires a sample size of five percent or a reduced amount of five percent.

Table 3:2 Sample size

S/N	University	No. of Undergraduates	Science		Social Sciences		Humanities /Art		Total	Sample size 5%
			Chemistry	Microbiology	Political Science	Economics	English	History		
1	UNILORIN	20,084	624	650	652	758	843	651	4178	208
2	UNI JOS	18,733	316	470	582	702	750	250	3070	154
3	UNIABUJA	49,436	811	871	1,127	1,027	1,092	1,072	6000	300
4	FULAFIA	7409	200	256	345	278	286	120	1485	75
5	FULOKOJA	3450	152	202	266	214	202	164	1,200	60
	TOTAL	116,213							15,933	797

Source: University Websites, Academic Planning Units 2016

3.5 Data collection instrument

Questionnaire tagged Personal Factors, Information Literacy skills, Library Anxiety Library Use Scale (PFILSLALUS) was used as the instrument for data collection for this study and there are four sections in it. (See Appendix I)

Section A: elicited information on the personal factors of the respondents which also include demographic variables, with items such as name of institution, age, gender, faculty, academic discipline, level of study, previous library experience/skills and level of awareness of library resources and services. There are seven questions in this section; questions 1-5 is on name of institution, age, gender, type of secondary school attended, faculty, academic discipline and level of study respectively, the respondents are expected to tick the options provided as applicable. Question 6 is on previous library skills which is on a four point scale, Very much like me, Somewhat like me, Not very much like me and Not like me. The respondents are expected to tick the options as applicable. Question 7 is on level of awareness of library resources and services, there are options of “Very highly aware” “Highly aware” “Aware” and “Not aware”, the respondents are expected to tick the options as applicable.

Section B covers the information literacy skills of undergraduates adapting the Standardised Assessment of Information Literacy Skills (SAILS) developed by Kent state University (2003). The main categories of information literacy skills were measured namely; ability to define and articulate information needed, ability to locate information, ability to organise information appropriately, ability to communicate and ethically use information and ability to assess and evaluate information. There are four questions on each categories of information literacy skills to be measured, thus, making a total number of twenty questions in this section. Likert scale is used in the questionnaire to obtain the degree of the responses. The respondents are expected to strongly agree, agree, disagree or strongly disagree. Items which indicated a positive response will be graded on points ranging from 4, 3, 2, to 1

Section C is on library anxiety of undergraduates, adapting measuring scale on library anxiety (MSLA) developed by Bostick (1992). This section contained questions to measure the level of library anxiety exhibited by the undergraduates when using the library. There are six questions each to measure the five constructs of library anxiety. The five constructs are; affective barriers, barriers with staff, comfort with the library, knowledge of the library and mechanical barriers. Thus, there are total numbers of thirty questions in this section. The Likert scale was used in the questionnaire to obtain the degree of response on a four point scale Strongly Disagree, Disagree, Agree and Strongly Agree.

Section D is on library use by undergraduates. Library use will be measured using the constructs identified by the researcher. They are; purpose of use, frequency of use and location of use of library resources and services.

3.6 Validity and Reliability of the Instrument

The face and the content validity of the research instrument was ascertained with the assistance of the researcher's supervisor and other five research experts in library and information science, who are experienced in the construction of research instruments. Thereafter, the instrument was corrected and pre-tested with the administration of 30 copies of the questionnaire to some set of undergraduates in Federal University of Agriculture, Abeokuta, Ogun state, Nigeria. The Cronbach-alpha method was used to determine the reliability coefficients of the instrument. This was done by calculating internal consistency and reliability coefficient value for each of the sections. The reliability for Sub scale A- Personal factors of undergraduates: Previous library experiences/skills is $r=0.85$, Level of awareness of library resources and services is $r=0.93$; Sub scale B-Information literacy skills of undergraduates is $r=0.75$; Sub scale C- Library anxiety of undergraduates is $r=0.87$; Sub scale D- Library use: Frequency of use, location of use and purpose of use is $r=0.75$, Use of information resources and services is $r=0.95$, The overall reliability coefficient for all variables is $r=0.94$. The Cronbach alpha value of 0.70 is an indicator that items within the instrument are homogeneous.

3.7 Data Collection Procedure

A letter of introduction from the researcher's Head of Department was used to facilitate the distribution and collection of data. Copies of the questionnaire were administered to undergraduates with the help of five trained research assistants in the selected universities. In all, seven hundred and ninety seven (797) copies of questionnaire were administered, during classes for compulsory courses which lasted for twenty weeks (December 2017 to April 2018) for comprehensive coverage.

3.8 Method of Data Analysis

The questionnaire was collated, coded and analysed. The Statistical Package for Social Science (IBM SPSS) was used for the data analysis. Descriptive statistics such as percentage mean and standard deviation were used to analyse the research questions. Hypotheses were tested using inferential statistics like correlation analysis and multiple regression analysis. Hypothesis H_{01} , H_{02} , H_{03} , H_{04} and H_{05} were tested using Pearson Product Moment Correlation (PPMC)

while Hypothesis Ho₆ and Ho₇ were tested using multiple regression analysis. The hypotheses were tested at 0.05 levels of significance.

3.9 Ethical consideration for the study

I solemnly state that this thesis was carried out by me and all works of authors, editors and cooperate bodies used as sources of information were duly cited and acknowledged in this study. The participants were not put under any trepidation or compulsion, responses were elicited from them out of their own volition and they indicated total willingness to participate in the survey. Therefore, Ethical considerations that guided the researcher in the course of this study are listed under the following headings:

- a. **Plagiarism:** The study was subject to turnitin plagiarism checkers to confirm the originality of the study. The result of the plagiarism test is 18% as indicated on Appendix XXVII. University of Ibadan manual style of referencing was strictly adhered to.
- b. **Confidentiality:** The introductory section of the instrument used conveyed the message of utmost confidence and anonymity and the assurance that the responses will be used solely for academic purposes. All information elicited from the respondents (undergraduates) will not be leaked or given to the third party or used for commercial purposes. The questionnaire will be destroyed to guide against future leakage occurrences.
- c. **Informed consent:** Participants were informed briefly on the purpose of the study. It was explained to the participants that that they are not under any duress or obligation to respond or participate in the survey. The intricacies of the data collection and analysis was explained in clear words to ensure no undergraduates would be forced to participate, therefore the respondents participated in the survey out of their own free will and voluntarily.
- d. **Falsification and Fabrication of data:** Only data collected from the field was used by the researcher in this study. The findings and the results were based on the data obtained from the field which were neither falsified nor fabricated.
- e. **Risk concern:** This study involved the undergraduates at all the conventional federal universities in the North-central, Nigeria. There is no form of risk involved in this study, the researcher ensure that no sensitive question relating to religious biasness, academic grades were asked during the course of the study.

- f. **Beneficence:**The researcher hope that the findings of this study could be of immense benefits to the following categories of stakeholders who have a direct or indirect link with the university libraries: undergraduates, librarians and their support staff, library administrators, university administrators and the society at large. Although findings of this study may not be generalised but could serve as basic intervention in increasing library patronage and add to the existing literature in the field of library and information studies

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the data analysis and interpretation of the results. The study examined the influence of personal factors, information literacy skills and library anxiety which are the independent variables on library use which is the dependent variable by undergraduates in federal universities in North-central, Nigeria. The findings were presented, interpreted and discussed based on the research questions and hypotheses using questionnaire as the measuring instrument. Six research questions and seven null hypotheses were generated to guide this research work. The discussion was divided into five sections as follows:

- 4.2 Questionnaire administration and response rate
- 4.3 Demographic variables of the respondents
- 4.4 Answers to the research questions
- 4.5 Testing of hypotheses
- 4.6 Discussion of findings

4.2 Questionnaire administration and response rate

The sample size for the study consisted of 797 undergraduates in the five conventional federal universities in North-central, Nigeria. Out of the 797 copies of the questionnaire administered, 725 copies were returned (91%) and all were found usable and valid for analysis (Table 4.1).

Table 4.1 Questionnaire administration and response rate

S/N	Federal universities	Distributed	Returned	Usable	Rate of response (%)
1	University of Jos (UNIJOS)	154	134	134	87
2	University of Ilorin (UNILORIN)	208	196	196	94
3	Federal University, Lokoja (FULOKOJA)	60	56	56	93
4	Federal University, Lafia (FULAFIA)	75	74	74	99
5	University of Abuja (UNIABUJA)	300	265	265	88
	Total	797	725	725	91

4.3 Demographic characteristics of the respondents

The demographic characteristics of the respondents consisted of name of institution, faculty, academic discipline, level of study, type of secondary school attended, gender and age. These demographic characteristics are also embedded in the personal factors of the respondents as will be indicated in research question one. Table 4.2 presents the demographic characteristics of the respondents.

Table 4.2 Demographic characteristics of the respondents

Name of Institution	Frequency	Percentage
University of Jos	134	18.5
University of Ilorin	196	27.0
Federal University Lokoja	56	7.7
Federal University Lafia	74	10.2
University of Abuja	265	36.6
Faculty	Frequency	Percentage
Sciences	279	38.5
Social sciences	211	29.1
Arts	235	32.4
Academic Discipline (Departments)	Frequency	Percentage
Microbiology	144	19.9
Economics	96	13.2
History	84	11.6
English	151	20.8
Political Science	115	15.9
Chemistry	135	18.6
Level	Frequency	Percentage
200	240	33.1
300	250	34.5
400	235	32.4
Type of secondary school attended	Frequency	Percentage
Private	363	50.1
Public	362	49.9
Gender	Frequency	Percentage
Male	368	50.8
Female	357	49.2
Age	Frequency	Percentage
15-20 years	175	24.1
21-25 years	380	52.4
26-30 years	170	23.4
Total	725	100.0

The results on Table 4.2 show the demographic analysis of the respondents from the five universities. The highest respondents were from University of Abuja (265) while the least respondents were from University of Lokoja (56). There is a slight difference in the response rate between undergraduates that attended private secondary schools (363) and public secondary schools (362). There are more female respondents (368) than the male respondents (357). Most respondents fall within the age range 21-25 years (380).

4.4 Answers to the research questions

The answers to the six research questions raised in this study are presented in this section.

4.4.1. Research question one: What are the personal factors of the undergraduates in federal universities in North-central, Nigeria?

The result of the personal factors of the undergraduates is presented in table 4.3a, 4.3b, 4.3c and 4.3d respectively. In order to ascertain the personal factors of undergraduates, the respondents were asked to indicate the name of institution attended, faculty, academic discipline, level, type of secondary school attended, age and gender which has been explained in the demographic characteristics. The personal factors of the respondents are also expanded in the study to include previous library experience/skills and level of awareness of library resources and services. Table 4.3a presents the results on faculty, academic discipline, level of study, gender, type of secondary school attended and age.

Table 4.3a Personal factors of undergraduates in federal universities in North-central, Nigeria

Personal Factors	Indicators	UNIJOS		UNILORIN		FULOKOJA		FULAFIA		UNIABUJA	
		F	%	F	%	F	%	F	%	F	%
Faculty	Science	57	42.5	80	40.8	22	39.3	29	39.2	91	34.3
	Soc. Science	35	26.1	59	30.1	19	33.9	26	35.1	72	27.2
	Arts	42	31.3	57	29.1	15	26.8	19	25.7	102	38.5
Academic Discipline	Microbiology	25	18.7	29	14.8	16	28.6	8	10.8	66	24.9
	Economics	19	14.2	33	16.8	8	14.3	13	17.6	23	8.7
	History & Intl Stud.	25	18.7	30	15.3	1	1.8	13	17.6	15	5.7
	English	24	17.9	42	21.4	12	21.4	11	14.9	62	23.4
	Pol. Science	22	16.4	31	15.8	12	21.4	15	20.3	35	13.2
	Chemistry	19	14.2	31	15.8	7	12.5	14	18.9	64	24.2
Level of study	200 level	44	32.8	61	31.1	44	78.6	23	31.1	68	25.7
	300 level	44	32.8	66	33.7	5	8.9	30	40.5	105	39.6
	400 level	46	34.3	69	35.2	7	12.5	21	28.4	92	34.7
Gender	Male	69	51.5	90	45.9	31	55.4	34	45.9	144	54.3
	Female	65	48.5	106	54.1	25	44.6	40	54.1	121	45.7
Type of Sec. Sch. attended	Private	93	69.4	101	51.5	19	33.9	38	51.4	112	42.3
	Public	41	30.6	95	48.5	37	66.1	36	48.6	153	57.7
Age	15-20 years	33	24.6	91	46.4	21	37.5	7	9.5	23	8.7
	21-25 years	77	57.5	83	42.3	29	51.8	44	59.5	147	55.5
	26-30 years	24	17.9	22	11.2	6	10.7	23	31.1	95	35.8

Table 4.3a shows the personal factors of undergraduates in federal universities in North-Central Nigeria.

University of Abuja had the highest number of respondents with 102 (38.5%) from Faculty of Arts while Faculty of Social Sciences had the lowest with 72 (27.2%). University of Ilorin, University of Jos, Federal university of Lokoja and Lafia had their highest number of respondents from Faculty of Science and had their lowest from Faculty of Arts except for University of Jos where Faculty of Social Sciences was the lowest.

University of Jos and University of Ilorin had their highest number of students from 400 levels, and their lowest from 200 levels. Federal University Lafia and University of Abuja had their highest number of students in 300 levels and their lowest in 400 levels and 200 levels respectively while Federal University Lokoja had the highest number of students from 200 level and lowest from 300 levels. University of Jos, Federal University Lokoja and University of Abuja had more male students than their female counterparts while University of Ilorin and Federal University Lafia had more female students than male in the study. Majority of the students in University of Jos, University of Ilorin and Federal University Lafia attended private school before their transition into university, while majority of the students from Federal University Lokoja and University of Abuja attended public schools.

Majority of the undergraduates from University of Jos, Federal University Lokoja, Federal University Lafia and University of Abuja were from age cohort of 21-25 years while a lesser percentage was from age cohort of 15-20 years except for Lokoja with age cohort of 26-30 years. University of Ilorin had a greater number of students from age cohort of 15-20 years (younger) and lesser percentage from the age cohort. Table 4.3b presents the result of previous library experiences/ skills of the undergraduates.

Table 4.3b Previous Library Experiences/Skills of Undergraduates in Federal Universities in North-central, Nigeria

	F	%	F	%	F	%	F	%		
Previous Library experiences/skills	NLM		NVM		SLM		VME		\bar{x}	S.D
	F	%	F	%	F	%	F	%		
I have the necessary skills for finding academic resources in the library	69	9.5	160	22.1	263	36.3	233	32.1	2.91	.96
I have necessary skills for using the e-library resources	91	12.6	155	21.4	239	33.0	240	33.1	2.87	1.02
I can use the OPAC correctly before coming to the university	175	24.1	148	20.4	184	25.4	218	30.1	2.61	1.15
My university library is the first library I have ever used	220	30.3	140	19.3	202	27.9	163	22.5	2.42	1.14
The secondary school I attended does not have a school library	246	33.9	145	20.0	178	24.6	156	21.5	2.34	1.16
I have never used a library before coming to the university	278	38.3	126	17.4	185	25.5	136	18.8	2.25	1.15
Weighted $\bar{x} = 2.57$										

Key: NLM = Not Like Me NVM = Not Very Much Like Me SLM = Somewhat Like Me VME = Very Much Like Me

Table 4.3b shows the result on previous library experiences/skills of undergraduates in federal universities in North-central, Nigeria. It reveals that majority of the undergraduates have necessary skills for finding academic resources in the library with a mean score of ($\bar{x}=2.91$) while few of them indicated that they have never used a library before coming to the university ($\bar{x}=2.25$). However, a considerable number of the undergraduates affirmed that the secondary school they attended does not have a school library ($\bar{x}=2.34$). Table 4.3c presents the result on test of norms on previous library experiences/skills of the undergraduates in federal universities in North-central, Nigeria.

Table 4.3c Test of norm on previous Library Experiences/Skills of Undergraduates in Federal Universities in North-central, Nigeria

Grand mean = 48.08, Maximum score = 24 Interval = $\frac{24}{3} = 8$, Classification = High, Moderate,

Low

Interval	Range	Level	Frequency	Percentage
1-8		Low	25	3.4
9-16		Moderate	405	55.9
17-24		High	295	40.7

The test of norm on table 4.3c reveals that the previous library experiences/ skills of undergraduates in federal universities in North-central, Nigeria is moderate. Table 4.3d presents the results on level of awareness of library resources and services of the undergraduates in federal universities in North-central, Nigeria.

Table 4.3d Level of Awareness of Library Resources and Services of the Undergraduates in Federal Universities in North-central, Nigeria

	F	%	F	%	F	%	F	%		
Library resources and services	NA		A		HA		VHA		\bar{x}	S.D
Books	51	7.0	72	9.9	180	24.8	422	58.2	3.34	.92
Journals	64	8.8	136	18.8	246	33.9	279	38.5	3.02	.96
Newspaper	91	12.6	138	19.0	204	28.1	292	40.3	2.96	1.05
Reference materials	103	14.2	159	21.9	230	31.7	233	32.1	2.82	1.04
Reserved Book Section	124	17.1	148	20.4	226	31.2	227	31.3	2.77	1.07
Photocopy services	149	20.6	126	17.4	201	27.7	249	34.3	2.76	1.13
Help desk	144	19.9	161	22.2	198	27.3	222	30.6	2.69	1.11
Electronic books	158	21.8	172	23.7	197	27.2	198	27.3	2.60	1.11
Thesis/dissertation/projects	147	20.3	174	24.0	225	31.0	179	24.7	2.60	1.07
Online database	173	23.9	156	21.5	202	27.9	194	26.8	2.58	1.12
Lamination and binding	179	24.7	161	22.2	183	25.2	202	27.9	2.56	1.14
Current awareness	160	22.1	179	24.7	208	28.7	178	24.6	2.56	1.09
Electronic journals	182	25.1	164	22.6	195	26.9	184	25.4	2.53	1.12
Loaning services	193	26.6	148	20.4	204	28.1	180	24.8	2.51	1.13
Remote accessibility of library resources	174	24.0	173	23.9	226	31.2	152	21.0	2.49	1.07
Indexes/abstracts	189	26.1	157	21.7	218	30.1	161	22.2	2.48	1.10
CD ROM resources	203	28.0	150	20.7	220	30.3	152	21.0	2.44	1.11
Institutional repository	208	28.7	176	24.3	201	27.7	140	19.3	2.38	1.09
Weighed $\bar{x} = 2.67$										

Key: NA = Not Aware A = Aware HA = Highly Aware VHS = Very Highly Aware

Table 4.3d indicates the level of awareness of library resources and services of the undergraduates in federal universities North-central Nigeria. The result shows that majority of the undergraduates are highly aware of the library resources and services. The result also indicate that they are mostly aware of books (422 (58.2%) with the highest mean score $\bar{x} = 3.34$. However, there is a low level of awareness of institutional repository as indicated by the result (140 (19.3%) with the least mean $\bar{x} = 2.38$. Inference to be drawn from the result is that most undergraduates have high level of awareness of books ($\bar{x} = 3.34$), journals ($\bar{x} = 3.02$), newspapers ($\bar{x} = 2.96$), reference materials ($\bar{x} = 2.82$), reserved book section ($\bar{x} = 2.77$) and photocopy services ($\bar{x} = 2.76$). Table 4.3e presents the result on the test of norm on the level of awareness of library resources and services by the undergraduates in federal universities in North-central, Nigeria.

Table 4.3e Test of norm on the level of Awareness of Library Resources and Services

Grand mean = 48.08, Maximum score = 72 Interval = $\frac{72}{3} = 24$, Classification = High, Moderate,

Low

Interval	Range	Level	Frequency	Percentage
1-36		Low	106	14.6
37-72	48.08	High	619	85.4

Going by the test norm result, it can be deduced that the level of awareness of Library resources and services among undergraduates in federal universities in North-central, Nigeria is high.

4.4.2. Research question two: What is the purpose of use of library resources and services by undergraduates in federal universities in North-Central Nigeria?

The result for the purpose of library use by the undergraduates is presented in Table 4.4

Table 4.4 Purpose of Library use by the Undergraduates

s/n	Purpose of library use	F %	Rank	
1	Study	496	68.4	1 st
2	Get information	350	48.3	2 nd
3	Borrow/return/renew books	266	36.7	3 rd
4	Read my lecture notes for test and examination	255	35.2	4 th
5	Meet with friends	164	22.6	5 th

Table 4.4 reveals the purpose of library use by the undergraduates in federal universities in North-central, Nigeria. The findings show that majority of the undergraduates use their university library for study purposes (68.4%) while less than a quarter of the undergraduates use the library for the purpose of meeting with friends (22.6%). Inference drawn from the result is that the major purpose of library use by the undergraduates in federal universities in North-central, Nigeria was to study.

4.4.3. Research question three: What is the preferred location of library use by the undergraduates in federal universities in North-central, Nigeria?

Table 4.4 presents the result on the preferred location of library use by undergraduates in federal universities in North-central, Nigeria.

Table 4.5 Preference of Location of library use by the Undergraduates

s/n	Locations of library use	F %	Ranking	
1	University main library	480	66.2	1 st
2	Faculty library	244	33.7	2 nd
3	Departmental library	243	33.5	3 rd
4	Remote use	109	15.0	4 th

Table 4.5 shows the result on preferred location of library use by the undergraduates in federal universities in North-central, Nigeria. The findings shows that majority of the undergraduates described university main library as their preferred location of library use (66.2%) while very few of the undergraduates used their university libraries remotely (15.0%). This finding revealed that undergraduates seldom use their university libraries remotely, majority of them preferred physical use of the library.

4.4.4 Research question four: What is the frequency of use of library resources and services by the undergraduates in federal universities in North-central, Nigeria?

Table 4.6a and 4.6b present the results on frequency of use of library information resources and services by undergraduates in federal universities in North-central, Nigeria.

Table 4.6a Frequency of Use of Library Resources and Services by the Undergraduates

Library resources and services	Daily		2-3times a week		Once a week		Monthly		Occasionally		Not at all		\bar{x}	S.D
	F	%	F	%	F	%	F	%	F	%	F	%		
Books	294	40.6	162	22.3	44	6.1	37	5.1	114	15.7	74	10.2	4.36	1.82
Newspapers	196	27.0	136	18.8	97	13.4	53	7.3	82	11.3	161	22.2	3.76	1.93
Journals	118	16.3	200	27.6	92	12.7	52	7.2	109	15.0	154	21.2	3.59	1.83
Reference materials	110	15.2	145	20.0	128	17.7	75	10.3	123	17.0	144	19.9	3.46	1.76
Electronic books	102	14.1	114	15.7	135	18.6	88	12.1	115	15.9	171	23.6	3.29	1.76
Online databases	84	11.6	107	14.8	103	14.2	110	15.2	121	16.7	200	27.6	3.07	1.75
Institutional repository	73	10.1	107	14.8	112	15.4	105	14.5	107	14.8	221	30.5	2.99	1.74
Indexes/Abstracts	66	9.1	106	14.6	110	15.2	112	15.4	119	16.4	212	29.2	2.97	1.70
Electronic Journals	61	8.4	101	13.9	116	16.0	118	16.3	107	14.8	222	30.6	2.93	1.69
Photocopy services	79	10.9	102	14.1	85	11.7	89	12.3	161	22.2	209	28.8	2.93	1.74
Digital collections	64	8.8	102	14.1	117	16.1	100	13.8	115	15.9	227	31.3	2.92	1.71
CD ROM resources	55	7.6	112	15.4	117	16.1	102	14.1	94	13.0	245	33.8	2.89	1.71
Remote use of library resources	57	7.9	121	16.7	103	14.2	79	10.9	137	18.9	228	31.4	2.89	1.72
Reference assistance/help desk	49	6.8	126	17.4	94	13.0	85	11.7	156	21.5	215	29.7	2.87	1.68
Thesis/Dissertation/Projects	56	7.7	101	13.9	108	14.9	105	14.5	18	16.3	237	32.7	2.84	1.69
Current awareness	72	9.9	101	13.9	93	12.8	84	11.6	125	17.2	250	34.5	2.84	1.76
Lamination/Binding	60	8.3	89	12.3	94	13.0	95	13.1	150	20.7	237	32.7	2.76	1.68
Loaning services	66	9.1	101	13.9	81	11.2	81	11.2	116	16.0	280	38.6	2.73	1.77
Weighted \bar{x} = 3.12														

Table 4.6a and 4.6b indicate the frequency at which undergraduates in the federal universities in North-central use library resources and services. The findings reveal that less than half of the respondents used books on a daily basis 294 (40.6%), however, this constitutes majority of the respondents that affirmed that they used books daily while very few of them indicated they do not use books at all 74 (10.2%). However, a considerable number of the respondents affirmed that they used books 2-3 times a week 162 (22.3%). Few of the respondents used newspaper daily 197 (27.0%) while some of the respondents indicated they do not use newspaper at all 161 (22.2%). The respondents use journal less frequently as indicated by the result, some of them used journal 2-3 times weekly 200 (27.6%) while a considerable number of them affirmed they do not use journal at all 154 (21.2%).

Low use of reference materials was indicated by the result, some of the respondents used reference materials 2-3 times a week 145 (20.0%) which shows the highest frequency of use. However, a considerable number of the respondents indicated they do not use reference materials at all 144 (19.9%). Low frequency use of electronic books was equally revealed by the results with frequency of 171 (23.6%) of the respondents affirming that they do not use electronic books at all. However, some of the respondents indicated that they used electronic books once a week 135 (18.6%). Varying degree of frequency of use of online databases was observed, however, majority of the respondents indicated they do not use online databases at all 200 (27.6%) while few number of the respondents used online databases daily 84 (11.6%). Majority of the respondents equally affirmed that they do not use their institutional repository at all 221 (30.5%) while very few of them used it daily 73 (10.1%).

Indexes and abstracts were not frequently used by the respondents with few of them affirming that they use indexes and abstract daily 66 (9.1 %) while considerable number of them indicating they do not use indexes and abstract all 212 (29.2%). Few of the respondents use electronic journal daily 61 (8.4%) while majority of them indicated they do not use electronic journal at all 222 (30.6%). Few of the respondents used photocopy services daily 79 (10.9%) while majority of them affirmed they do not use photocopy services at all 209 (28.8%). A considerable number of the respondents indicated they use digital collection occasionally 115 (15.9%) while majority of them indicated they do not use digital collection at all 227 (31.3%). Frequency of use of CDROM resources is very low with majority of the respondent affirming

they do not use CDROM resources at all 245 (33.8%) while very few of them use it daily 55 (7.6%).

Few of the respondents used their university library resources remotely daily 57 (7.9) while majority of them indicated they do not use their university library resources remotely 228 (31.4%). Majority of the respondents indicated they do not use reference assistance/help desk at all 215 (29.7%) however, a considerable number of them used it occasionally 156 (21.5%). Majority of the respondents indicated they do not use thesis/dissertation/projects at all while few of them affirmed that they used it daily 56 (7.7%). Majority of the respondents indicated they do not use current awareness services at all 250 (34.5%) while a considerable number of them used it occasionally 125 (17.2%). Majority of the respondents indicated they do not use lamination/binding at all 237 (32.7%) while a considerable number of them used it occasionally 150 (20.7%). Majority of the respondents affirmed they do not use loaning services at all 280 (38.6%) while few of them indicated they use loaning services daily 66 (9.1%). The results reveal that books were mostly used ($\bar{x}=4.36$) by the respondents compare to the other library resources and services while loaning services were the least used ($\bar{x}=2.73$) by the respondents. Table 4.6b presents the result on test of norms on the frequency of use of library resources and services by the undergraduates in federal universities in North-central, Nigeria.

Table 4.6b Test of norm on the frequency of Use of Library Resources and Services by Undergraduates in Federal Universities in North-Central Nigeria

Grand mean = 56.12, Maximum score = 108 Interval = $\frac{108}{3} = 36$, Classification = High, Moderate, Low

Interval	Range	Level	Frequency	Percentage
1-36		Low	149	20.6
37-72	56.12	Moderate	391	53.9
73-108		High	185	25.5

The test of norm result reveals that the frequency of use of library resources and services by undergraduates in federal universities in North-central, Nigeria is not high as expected. The frequency of use of library resources and services is on the average; however, the findings revealed that books were mostly used by the undergraduates compared to other resources available in the university libraries in the federal universities in North-central, Nigeria.

4.4.5 Research question five: What is the level of information literacy skills of undergraduates in federal universities in North-central, Nigeria?

Tables 4.7a and 4.7b present the results for each indicator of information literacy skills showing the level of information literacy skills of undergraduates in federal universities in North-central, Nigeria. The indicators are ability to define and articulate information needed, ability to locate information, ability to organise information, ability to communicate and ethically use information and ability to assess and evaluate information.

Table 4.7a Level of Information Literacy Skills of undergraduates in Federal Universities in North-central, Nigeria

Information Literacy Skills	SD		D		A		SA		\bar{x}	S.D
	F	%	F	%	F	%	F	%		
Ability to define and articulate information needed										
I am able to formulate questions based on information needed	86	11.9	49	6.8	299	41.2	291	40.1	3.10	.97
I am able to understand research topic	84	11.6	113	15.6	289	39.9	239	33.0	2.94	.97
I know how to expand or refine search questions	96	13.2	128	17.7	288	39.7	213	29.4	2.85	.99
I am able to create my own work based on the information found	114	15.7	114	15.7	283	39.0	214	29.5	2.82	1.03
Ability to locate information										
I rarely find what I am looking for in the library	173	23.9	153	21.1	209	28.8	190	26.2	2.57	1.12
I find library a difficult and confusing place due to so many options of research	189	26.1	176	24.3	218	30.1	142	19.6	2.43	1.08
I know how to use Boolean operators truncation for searching	189	26.1	192	26.5	206	28.4	138	19.0	2.40	1.07
I experience much difficulty in finding information on specific topics while using the Internet	207	28.6	149	20.6	219	30.2	150	20.7	2.43	1.11
Ability to organise information										
I can limit online search by fields	150	20.7	139	19.2	232	32.0	204	28.1	2.68	1.09
I am familiar with the concept of a controlled vocabulary tool, such as Thesaurus	120	16.6	155	21.4	270	37.2	180	24.8	2.70	1.02
I am always confused with so much information presented by the search engines	137	18.9	183	25.2	260	35.9	145	20.0	2.57	1.01

I can effectively use the library catalogue(online and manual) to search for specific library materials	102	14.1	132	18.2	270	37.2	221	30.5	2.84	1.01
Ability to communicate and ethically use information										
I know about copyright law	100	13.8	104	14.3	270	37.2	251	34.6	2.93	1.02
I am familiar with the concept of plagiarism	95	13.1	108	14.9	268	37.0	254	35.0	2.94	1.01
I am able to create my own work based on the information found	114	15.7	114	15.7	283	39.0	214	29.5	2.82	1.04
I am able to cite information sources correctly	95	13.1	112	15.4	284	39.2	234	32.3	2.91	1.00
Ability to assess and evaluate information										
I understand that a scholarly journal article has been evaluated by an editorial board before publication	92	12.7	85	11.7	279	38.5	269	37.1	3.00	1.00
I am able to use information in critical thinking and problem solving	67	9.2%	115	15.9	308	42.5	235	32.4	2.98	.92
I do not believe it is possible to determine the quality of a page returned by a search engine	103	14.2%	169	23.3	266	36.7	187	25.8	2.74	1.00
I am able to identify sentiments, bias and manipulation in any information sources	102	14.1%	135	18.6	273	37.7	215	29.7	2.83	1.01
Weighed \bar{x} = 2.78										

Key: SD = Strongly Disagree D = Disagree A = Agree SA = Strongly Agree

Table 4.7a reveals the level of information literacy skills of undergraduates in federal universities in North-central, Nigeria. It reveals that majority of the respondents were able to: formulate questions based on information needed 590 (81.3%), $\bar{x} = 3.10$); understand research topic 528 (72.9%), $\bar{x} = 2.94$); know how to expand or refine search questions 501 (69.1%), $\bar{x} = 2.85$) and able to create their own work based on the information found 497 (68.5%), $\bar{x} = 2.82$). The findings show that the level of undergraduates' ability to define and articulate information needed is relatively high. A fairly over average number of the respondents indicated they rarely find what they are looking for in the library 399 (55.0%), $\bar{x} = 2.57$) and also experience much difficulty in finding information on specific topics while using the Internet 369 (50.9%), $\bar{x} = 2.43$). However, less than average of the respondents indicated that they find library a difficult and confusing place due to so many options of research 360 (49.7%), $\bar{x} = 2.43$) and also know how to use Boolean operators, truncation for searching 344 (47.4%), $\bar{x} = 2.40$). The result established the fact that the level of undergraduates' ability to locate information is on the average. This implies that the undergraduates do not possess high skills in the ability to locate information but have moderate skills in this aspect of information literacy skills.

Majority of the undergraduates indicated that they were able to limit online search by fields 436 (60.1%), $\bar{x} = 2.68$) and can also effectively use the library catalogue (online and manual) to search for specific library materials 491 (67.7%), $\bar{x} = 2.70$). However, majority of the undergraduates affirmed that they were familiar with the concept of controlled vocabulary tool, such as Thesaurus 405 (62.0%), $\bar{x} = 2.70$) and are always confused with so much information presented by the search engines 405 (55.9%), $\bar{x} = 2.70$). The result reveals that the level of undergraduates' ability to organise information is moderate and not high. Majority of the undergraduates indicated they know about copyright law 521 (71.8%), $\bar{x} = 2.93$); are familiar with the concept of plagiarism 522 (72.0%), $\bar{x} = 2.94$); were able to create their own work based on the information found 409 (68.5%), $\bar{x} = 2.82$) and were able to cite information sources correctly 518 (71.5%), $\bar{x} = 2.91$). The result established that the level of the undergraduates' ability to communicate and ethically use information is high. Majority of the undergraduates affirmed that they understand scholarly journal articles have been evaluated by an editorial board before publication 548 (75.6%), $\bar{x} = 3.00$), able to use information in critical thinking and problem solving 543 (74.9%), $\bar{x} = 2.98$) and able to identify sentiments, bias and manipulation in any information sources 488 (67.4%), $\bar{x} = 2.83$). However, many of the undergraduates asserted

that they do not believe it is possible to determine the quality of pages returned by search engines 453 (62.5%), $\bar{x} = 2.83$). The result established that the level of undergraduates' ability to assess and evaluate information is relatively low. Table 4.6b presents the test of norm on the level of information literacy skills of undergraduates in federal universities in North-central, Nigeria.

Table 4.7b Test of norm on the level of Information Literacy Skill of Undergraduates

Grand mean = 55.55, Maximum score = 80, Interval = $\frac{80}{3} = 26.67$, Classification = High,

Moderate, Low

Interval	Range	Level	Frequency	Percentage
1-26		Low	7	1.0
27-52		Moderate	216	29.8
53-80	55.55	High	502	69.2

As indicated by the test of norm result, it can be deduced that the level of information literacy skill undergraduates in federal universities in North-central, Nigeria is high.

4.4.6. Research question six: What is the level of library anxiety experienced by undergraduates in federal universities in North-central Nigeria?

In order to ascertain the level of library anxiety experienced by undergraduates in federal universities in North-central, Nigeria, respondents were asked to indicate their level of library anxiety which has about five intrinsic aspects and each of the five aspects indicated the very core causes of library anxiety experienced by the undergraduates. The results of the library anxiety exhibited by the undergraduates are presented in tables 4.8a and 4.8b respectively. Table 4.8a presents the result of library anxiety experienced by the undergraduates in federal universities in North-central, Nigeria.

Table 4.8a Level of Library Anxiety experienced by Undergraduates in federal universities in North-central, Nigeria

Library anxiety	SD		D		A		SA		\bar{x}	S.D
	F	%	F	%	F	%	F	%		
Affective barrier										
I am embarrassed that I don't know how to use the library	262	36.1	243	33.5	136	18.8	84	11.6	2.06	1.01
The university library is confusing to me	245	33.8	256	35.3	144	19.9	80	11.0	2.08	.99
I am unsure about how to begin my search	233	32.1	234	32.3	175	24.1	83	11.4	2.15	1.00
I enjoy learning new things about the library	189	26.1	225	31.0	194	26.8	117	16.1	2.33	1.03
The library never has the materials I need	223	30.8	251	34.6	175	24.1	76	10.5	2.14	.97
I can never find things in the library	276	38.1	230	31.7	125	17.2	94	13.0	2.05	1.03
Barrier with staff										
I feel I am bothering the reference librarians if I ask question	253	34.9	272	37.5	127	17.5	73	10.1	2.03	.96
Librarians do not have time to help me	231	31.9	274	37.8	151	20.8	69	9.5	2.08	.95
The reference librarians are not approachable	250	34.5	286	39.4	136	18.8	53	7.3	1.99	.91
The librarians are unapproachable	246	33.9	257	35.4	158	21.8	64	8.8	2.06	.95
The reference librarians are unhelpful	239	33.0	274	37.8	148	20.4	64	8.8	2.05	.94
If I cannot find a book on the shelf or online in the e-library the library staff will help me	226	31.2	260	35.9	152	21.0	87	12.0	2.14	.99
Comfort with the library										
I get confused trying to find my way around the library	264	36.4	248	34.2	135	18.6	78	10.8	2.04	.99
I feel comfortable in the library	229	31.6	205	28.3	183	25.2	108	14.9	2.23	1.05
I feel safe in the library	212	29.2	240	33.1	177	24.4	96	13.2	2.22	1.01
The library rules are too restrictive	240	33.1	239	33.0	188	25.9	58	8.0	2.09	.95
I do not feel physically safe in the library	247	34.1	291	40.1	124	17.1	63	8.7	2.00	.93
The graveyard silence in the library makes me uncomfortable	252	34.8	255	35.2	153	21.1	65	9.0	2.04	.96
Knowledge of the library										
I do not know what to do next when the book I need is not on the shelf	189	26.1	281	38.8	158	21.8	97	13.4	2.22	.98
The library is an important part of my institution	221	30.5	220	30.3	171	23.6	113	15.6	2.24	1.05

I want to learn to do my own search	255	35.2	208	28.7	166	22.9	96	13.2	2.14	1.05
I do not know what resources are available in the library	289	39.9%	214	29.5%	147	20.3%	75	10.3%	2.01	1.01
I always return books used to shelf after use	270	37.2	211	29.1	163	22.5	81	11.2	2.08	1.02
I do not know how to use e-resources available in the e-library	313	43.2	204	28.1	146	20.1	62	8.6	1.94	.99
Mechanical barrier										
I can always ask a librarian if I do not know how to work a piece of equipment in the library	301	41.5	216	29.8	127	17.5	81	11.2	1.98	1.02
The computer printers are often out of paper	307	42.3	235	32.4	132	18.2	51	7.0	1.90	.94
The directions for using computers are not clear	310	42.8	222	30.6	139	19.2	54	7.4	1.91	.95
Good instructions for using the library's computers are available	265	36.6	234	32.3	142	19.6	84	11.6	2.06	1.01
The photocopy machines are usually out of order	296	40.8	239	33.0	129	17.8	61	8.4	1.94	.96
I prefer Google search to using the library	269	37.1	236	32.6	134	18.5	86	11.9	2.05	1.01
	Weighed \bar{x} = 2.08									

Key: SD = Strongly Disagree D = Disagree A = Agree SA = Strongly Agree

Table 4.8a reveals result on the level of library anxiety experienced by undergraduates in federal universities in North-central, Nigeria. The findings reveal that a considerable number of the undergraduates affirmed that they are unsure about how to begin their search (258, 35.5%, $\bar{x} = 2.33$) while few of them asserted they can never find things in the library (219, 30.2%, $\bar{x} = 1.03$). Some of the undergraduates indicated that if they cannot find a book on the shelf or online in the e-library, the library staff will help them (239, 33.0%, $\bar{x} = 2.14$) while few of them felt they are bothering the reference librarians if they ask questions (200, 27.6, $\bar{x} = 2.03$). Majority of the undergraduates indicated they feel comfortable in the library (291, 40.1%, $\bar{x} = 2.23$) while few of them affirmed that they do not feel physically safe in the library (187, 25.8%, $\bar{x} = 2.00$). The findings further revealed that few of the undergraduates affirmed that the library is an important part of their institution (284, 39.2%, $\bar{x} = 1.05$) and few do not know how to use e-resources available in the e-library (208, 28.7% $\bar{x} = 1.94$). A considerable number of the undergraduates asserted they preferred Google search to using the library (220, 30.4%, $\bar{x} = 2.05$) while few of them reported that computer printers are often out of paper (183, 25.2% $\bar{x} = 1.90$).

Table 4.8b Test of norm on the level of Library Anxiety experienced by the Undergraduates

Grand mean = 62.26, Maximum score = 120 Interval = $\frac{120}{3} = 40$, Classification = High, Moderate, Low

Interval	Range	Level	Frequency	Percentage
1-40		Low	35	4.8
41-80	62.6	Moderate	616	85.0
81-120		High	74	10.2

The test of norm result as presented on table 4.8b reveals that the level anxiety experienced by the undergraduates is moderate. This implies that the level of library anxiety experienced by the undergraduates in federal universities in North-central, Nigeria is moderate and not high.

4.5 Test of hypotheses

The following seven null hypotheses guided the conduct of this study and they were tested at 0.05 level of significance. The relationship between the variables were tested generally across the five universities which indicated if the hypotheses were to be rejected or accepted based on the Pearson Product Moment Correlation (PPMC) results.

4.5.1 Hypothesis one: There is no significant relationship between Personal Factors and library use by undergraduates in Federal Universities in North-central, Nigeria.

Result of hypothesis one is presented in tables 4.9a and 4.9b. Each indicator of personal factors was tested on library use. Table 4.8a presents the Pearson Product Moment Correlation (PPMC) result showing the relationship between personal factors and library use of undergraduates in federal universities in North-central, Nigeria.

Table 4.9a Relationship between Personal Factors and Library use by the undergraduates

	1	2	3	4	5	6	7	8	\bar{x}	S.D
1	1								59.72	22.81
2	.032 (.396)	1							22.97	3.45
3	-.009 (.805)	-.034 (.359)	1						1.49	0.50
4	.006 (.861)	.024 (.516)	.029 (.436)	1					5.07	2.80
5	.090* (.016)	.094* (.011)	.048 (.194)	.063 (.089)	1				1.50	0.50
6	.061 (.098)	.148** (.000)	.076* (.041)	-.070 (.060)	-.041 (.273)	1			2.31	0.94
7	.327** (.000)	-.036 (.332)	-.079* (.034)	-.052 (.162)	.059 (.113)	.118** (.001)	1		15.40	4.11
8	.237** (.000)	-.085* (.023)	.046 (.216)	.036 (.331)	-.035 (.348)	-.063 (.092)	.232** (.000)	1	48.08	11.30

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library use

2 = Age

3 = Gender

4 = Academic discipline (Department)

5 = Type of secondary school attended

6 = Level of study

7 = Previous library experience

8 = Level of awareness of library resources

Table 4.8a reveals that there were positive significant relationships between library use and academic discipline ($r = .083^*$, $p(.025) < .05$), Type of secondary school attended ($r = .090^* < .05$, $p(.016) < .05$), previous library experience ($r = .327^{**}$, $p(.000) < .05$) and level of awareness of library resources and services ($r = .237^{**}$, $p(.000) < .05$). However, there was no significant relationships with gender ($r = -.009$, $p(.805) > .05$) and level of study ($r = .061$, $p(.098) > .05$) respectively. Table 4.9b presents the summary result of the relationship between personal factors and library use by the undergraduates in federal universities in North-central, Nigeria.

Table 4.9b Summary of the Relationship between Personal Factors and Library Use by the Undergraduates

Variable	Mean	Std. Dev.	N	R	p-value	Remark
Library Use	59.7172	22.8143	725	.330**	.000	Sig.
Personal Factors	96.2083	13.4676				

** Sig at 0.1 level

Table 4.9b indicates that there was a positive significant relationship between personal factors and library use by undergraduates in Federal Universities in North-Central, Nigeria ($r = .330^{**}$, $N = 725$, $p < .05$). Therefore, the null hypothesis is rejected.

4.5.2 Hypothesis Two: There is no significant relationship between Information Literacy Skills and library use by undergraduates in federal universities in North-central, Nigeria.

Tables 4.10a and 4.10b present the result on the relationship between information literacy skills and library use by the undergraduates in federal universities in North-central Nigeria. Table 4.10a presents the Pearson Product Moment Correlation (PPMC) showing the relationship between information literacy skills and library use by the undergraduates in federal universities in North-central, Nigeria.

Table 4.10a Relationship between Information Literacy Skills and Library Use by the Undergraduates

	1	2	3	4	5	6	\bar{x}	S.D
1	1						59.72	22.81
2	-.031 (.411)	1					11.7145	2.9531
3	.212** (.000)	.379** (.000)	1				9.8400	3.1310
4	.212** (.000)	.417** (.000)	.535** (.000)	1			10.7903	2.7153
5	.091* (.014)	.419** (.000)	.176** (.000)	.333** (.000)	1		11.6593	2.7809
6	.207** (.000)	.302** (.000)	.197** (.000)	.307** (.000)	.620** (.000)	1	11.5503	2.7651

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library Use

2 = Ability to Define and Articulate Information

3 = Ability to Locate Information

4 = Ability to Organise Information

5 = Ability to Communicate and Ethically Use Information

6 = Ability to Assess and Evaluate Information

Table 4.10a reveals that there were positive significant relationships between library use and ability to locate information ($r = .212^{**}$, $p(.000) < .05$), ability to organise information ($r = .212^{**}$, $p(.000) < .05$), ability to communicate and ethically use information ($r = .091^{*}$, $p(.014) < .05$), ability to evaluate information ($r = .207^{**}$, $p(.000) < .05$). However, library use had no significant relationship with ability to define and articulate information ($r = -.031$, $p(.411) > .05$). Table 4.10b presents the summary result showing the relationship between information literacy skills and library use by the undergraduates in federal universities in North-central, Nigeria.

Table 4.10b: Relationship between Information Literacy Skills and Library use by the Undergraduates

Variable	Mean	Std. Dev.	N	R	p-value	Remark
Library Use	59.7172	22.8143	725	.195**	.000	Sig.
Information Literacy Skills	55.5545	10.1199				

** Sig at 0.1 level * Sig at 0.5 level

Table 4.10b shows that there was a positive significant relationship between information literacy skills and library use by undergraduates in federal universities in North-Central Nigeria ($r = .195^{**}$, $N = 725$, $p < .05$). Hence, information literacy skills had a positive influence on library use by the undergraduates in the study. The null hypothesis is rejected.

4.5.3 Hypothesis Three: There is no significant relationship between Library Anxiety and Library Use by undergraduates in federal universities in North-central, Nigeria.

Tables 4.11a and 4.11b present the result for hypothesis three. Table 4.24 presents the Pearson Product Moment Correlation (PPMC) showing the relationship between library anxiety and library use by the undergraduates in federal universities in North-central, Nigeria.

Table 4.11a: Relationship between Library Anxiety and Library Use by the Undergraduates

	1	2	3	4	5	6	\bar{x}	S.D
1	1						59.72	22.81
2	.031 (.406)	1					12.8124	3.8279
3	-.019 (.613)	.499** (.000)	1				12.3407	3.6808
4	-.062 (.097)	.399** (.000)	.547** (.000)	1			12.6234	3.4014
5	-.203** (.000)	.224** (.000)	.293** (.000)	.506** (.000)	1		12.6372	4.0803
6	-.177** (.000)	.258** (.000)	.306** (.000)	.434** (.000)	.712** (.000)	1	11.8469	4.1981

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library Use

2 = Affective Barrier

3 = Barrier with Staff

4 = Comfort with the Library

5 = Knowledge of the Library

6 = Mechanical Barrier

Table 4.11a shows that there were negative significant relationships between library use and knowledge of the library ($r = -.203^{**}$, $p(.000) < .05$) and mechanical barrier ($r = -.177^{**}$, $p(.000) < .05$). However, library use had no significant relationship with affective barrier ($r = .031$, $p(.406) > .05$), barrier with staff ($r = -.019$, $p(.613) > .05$) and comfort with the library ($r = -.062$, $p(.097) > .05$). Table 4.9b presents the summary result of the relationship between library anxiety and library use by the undergraduates in federal universities in North-central, Nigeria.

Table 4.11b Summary of Relationship between Library Anxiety and Library use by the Undergraduates

Variable	Mean	Std. Dev.	N	R	p value	Remark
Library Use	59.7172	22.8143	725	-.124**	.001	Sig.
Library Anxiety	62.2607	14.0217				

** Sig at 0.1 level

Table 4.11b shows that there was a negative significant relationship between library anxiety and library use by undergraduates in federal universities in North-Central Nigeria ($r = -.124^{**}$, $N = 725$, $p < .05$). Hence, library anxiety had a negative influence on library use of undergraduates in the study. Therefore, the null hypothesis is rejected.

4.5.4 Hypothesis Four: There is no significant relationship between Personal Factors and Information Literacy Skills of Undergraduates in Federal Universities in North-central, Nigeria.

Table 4.12 presents the result of hypothesis four. Table 4.12 presents the Pearson Product Moment Correlation showing the relationship between personal factors and information literacy skills of undergraduates in federal universities in North-central, Nigeria.

Table 4.12 Relationship between Personal Factors and Information Literacy skills of the Undergraduates

Variable	Mean	Std. Dev.	N	R	p value	Remark
Personal Factors	73.5614	13.4676	725	.511**	.000	Sig.
Information Literacy Skills	55.5545	10.1199				

** Sig at 0.1 level

Table 4.12 shows that there was a positive significant relationship between personal factors and information literacy skills of undergraduates in federal universities in North-Central, Nigeria ($r = .511^{**}$, $N = 725$, $p < .05$). Hence, personal factors had a positive influence on information literacy skills of undergraduates in the study. The null hypothesis is rejected..

4.5.5 Hypothesis Five: There is no significant relationship between Library anxiety and Information literacy skills by Undergraduates in Federal Universities in North-central, Nigeria.

The finding is presented in tables 4.13. Table 4.13 presents the Pearson Product Moment Correlation showing the relationship between information literacy skills and library anxiety of undergraduates in federal universities in North-central, Nigeria.

Table 4.13 Relationship between Information Literacy Skills and Library Anxiety of the Undergraduates

Variable	Mean	Std. Dev.	N	R	p value	Remark
Information Literacy Skills	55.5545	10.1199	725	-.046	.220	n.s.
Library Anxiety	62.2607	14.0217				

Table 4.13 reveals that there was no significant relationship between information literacy skills and library anxiety of undergraduates in federal universities in North-Central Nigeria ($r = -.046$, $N = 725$, $p > .05$). Hence, library anxiety had no influence on information literacy skills of undergraduates in the study. The null hypothesis is accepted.

4.5.6 Hypothesis Six: There is no significant composite influence of Personal factors, Information literacy skills and Library anxiety on Library use by Undergraduates in North-central, Nigeria.

Tables 4.14 presents the results on composite influence of Personal Factors (Age, Gender, Academic Discipline, Type of Secondary School Attended, Level, Previous Library Experience and Level of Awareness), Information Literacy Skills (Ability to Define and Articulate Information, Ability to Locate Information, Ability to Organize Information, Ability to Communicate and Ethically Use Information and Ability to Evaluate Information) and Library Anxiety (Affective Barrier, Barrier with Staff, Comfort with the Library, Knowledge of the Library and Mechanical Barrier) on Library use by the undergraduates in North-Central Nigeria. Table 4.14 presents the ANOVA showing the composite influence of personal factors, information literacy skills and library anxiety on library use by undergraduates in federal universities in North-central, Nigeria.

Table 4.14 Composite influence of Personal Factors, Information Literacy Skills and Library Anxiety on Library Use by Undergraduates

R	R Square	Adjusted R Square	Std. Error of the Estimate			
.339	.115	.111	20.2143			
A N O V A						
Model	Sum of Squares	DF	Mean Square	F	Sig. p	Remark
Regression	43200.518	17	5173.029	31.119	.000	Sig.
Residual	333634.5	721	462.739			
Total	376835.03	724				

Table 4.14 showed the composite influence of Personal Factors (Age, Gender, Academic Discipline, Type of Secondary School Attended, Level, Previous Library Experience and Level of Awareness), Information Literacy Skills (Ability to Define and Articulate Information, Ability to Locate Information, Ability to Organize Information, Ability to Communicate and Ethically Use Information and Ability to Evaluate Information) and Library Anxiety (Affective Barrier, Barrier with Staff, Comfort with the Library, Knowledge of the Library and Mechanical Barrier) on Library Use of Undergraduates was significant. The table also showed a coefficient of multiple correlation of $R = .339$ and a multiple R^2 of .115. This means that 11.5% of the variance was accounted for by the predictor variables when taken together. The significance of the composite contribution was tested at $<.05$. The table reveals that the analysis of variance (ANOVA) for the regression yielded an F-ratio of 31.119. This implies that the joint contribution of the independent variables to the dependent variable was significant and that other variables not included in this model may have accounted for the remaining variance

4.5.7. Hypothesis Seven: There is no significant relative contribution of personal factors, information literacy skills and library anxiety on library use by undergraduates in the Federal Universities in North-central, Nigeria.

Table 4.15a presents the results on relative contribution of personal factors, information literacy skills and library anxiety on library use by the undergraduates.

Table 4.15a Relative contribution of Personal Factors, Information Literacy Skills and Library Anxiety on Library Use by the Undergraduates

Model	Unstandardized Coefficient		Stand. Coefficient	T	Sig. p
	B	Std. Error	Beta Contribution		
(Constant)	2.092	8.946		.234	.815
Age	9.516E-02	.226	.014	.421	.674
Gender	.724	1.541	.016	.470	.638
Academic Discipline	.373	.288	.043	1.294	.196
Type of Secondary School Level	3.063	1.532	.067	1.999	.046
Previous Library Experience	1.696	.949	.060	1.787	.074
Level of Awareness	1.112	.202	.200	5.503	.000
Ability to Define & Articulate Info.	.433	.082	.214	5.259	.000
Ability to Locate Information	-1.631	.338	-.211	-4.831	.000
Ability to Organise Information	.875	.296	.120	2.956	.003
Ability to Communicate & Ethically Use Info.	.396	.376	.047	1.053	.293
Ability to Assess & Evaluate Information	-1.159	.371	-.019	-.428	.669
Affective Barrier	1.252	.358	.152	3.501	.000
Barrier with Staff	.564	.238	.095	2.369	.018
Comfort with the Library	3.633E-02	.267	.006	.136	.892
Knowledge of the Library	.320	.301	.048	1.064	.287
Mechanical Barrier	-.688	.282	-.123	-2.443	.015
	-.231	.264	-.042	-.875	.382

Table 4.15a reveals the relative contribution of the independent variables to the dependent variable. The result indicates that Age ($\beta = .014$, $p > .05$), gender ($\beta = .012$, $p > .05$), academic discipline ($\beta = .045$, $p > .05$) and level of study ($\beta = .022$, $p > .05$) had no significant relative contribution while type of secondary school attended ($\beta = .068$, $p < .05$), previous library experience ($\beta = .198$, $p < .05$) and level of awareness ($\beta = .213$, $p < .05$) had significant relative contribution. The result further reveals that ability to define and articulate information ($\beta = -.215$, $p < .05$) and ability to locate information ($\beta = .123$, $p < .05$) had significant relative contribution while ability to organise information ($\beta = .045$, $p > .05$) had no significant relative contribution to library use by the undergraduates.

The result also reveals that ability to evaluate information ($\beta = .155$, $p < .05$), affective barrier ($\beta = .094$, $p < .05$) and knowledge of the library ($\beta = -.118$, $p < .05$) had significant relative contribution. However, barrier with staff ($\beta = .007$, $p > .05$), comfort with the library ($\beta = .049$, $p > .05$), ability to communicate and ethically use information ($\beta = -.024$, $p > .05$) and mechanical barrier ($\beta = -.045$, $p > .05$) had no significant relative contribution to library use by the undergraduates.

4.6 Discussion of the findings

This section discussed the findings of the study. The study focused on Personal factors, Information literacy skills and Library anxiety as factors influencing library use by undergraduates in North-central, Nigeria.

4.6.1 Personal factors of the undergraduates

Personal factors identified in the study are academic discipline, age, gender, level of study, previous library experiences/skills and level of awareness of library resources and services. The findings revealed that academic discipline, type of secondary school attended, previous library experiences/skills and level of awareness of library resources and services influence library use by the undergraduates while age, gender and level of study do not influence library use.

This finding is in tandem with the conclusion of the findings by Bridges (2008) that asserted that academic discipline influence library use by undergraduates. In the same vein, Vodracek (2007) and Toner (2008) also opined that lack of awareness of library resources and services have negative influence on library use. On the contrary, Islam (2011) asserted that level of study, academic discipline, age and gender of undergraduates in a higher learning institution

in Malaysia were found to be significant in the effectiveness of the library use. Ajayi and Ogunyemi (2011) opined that as level of study of undergraduates increases, library use increases. The researcher therefore concluded that level of study have significant relationship with the library use by the undergraduates. At variant with the findings of this study, is a study done by Pembee (2014) on influence of demographic characteristics of undergraduates on library use in Kabarak University, a private Christian university in Kenya which affirmed that there was not enough evidence to conclude that demographic characteristics of the undergraduates influenced library information system usage.

4.6.2 Purpose of library use by the undergraduates

The major purpose of library use by the undergraduates is to study, although a considerable number of the undergraduates still use the library for other purposes such as; a meeting place to meet their friends, to get information, to borrow and return or renew books and also to read their lecture notes for test and examination. The implication of this finding is that the undergraduates still use the core service of the library which is to study. In line with this study, is the finding of Goel et al (2012) on library usage by undergraduate medical students in a medical college in North India. The researchers asserted that majority of the undergraduates use the library for study and also use the library to consult manuscript, dissertation and project reports. Khan, Bhatti and Khan (2014) did a survey on the utilisation of resources, services and facilities of the Central Library of the University of Peshawar, Pakistan by undergraduates; Arthur Brafı and Kuranchie (2013) did a survey on library use among students of tertiary institutions in Sunyani Municipality of Ghana and Bhatti, Batool and Malik (2013) also conducted a study on the use of library by the undergraduates at Islamia University of Bahawalpur, Pakistan. All the researchers (Khan, Bhatti and Khan 2014; Arthur, Brafı and Kuranchie 2013; Bahatti, Batool and Malik 2013) submitted that most students predominantly used the library as a place to study for examination and to complete their assignment. Reference materials, past questions and recommended course textbooks were mostly used by the respondents while a small number of them use serials and fiction.

In consonance with this study also is the finding of Adeyoyin et al (2013) that majority of the undergraduates in a federal university of Agriculture in Nigeria, use the library for multiple purposes which ranges from reading personal books, use of reference materials, borrowing books to materials consultations for executing assignments. However, books were

mostly consulted by the respondents. At variance with this study, Kumar, Firdaus, Ighal and Khan (2014) opined that majority of the undergraduates at Tika Ram Kanya Mahavidyalaya library, India prefer to borrow books from the library while newspaper and reference books are mostly used information resources. Sahu, Swain and Rout (2012) also asserted that there is evident that the use of main library services by the students of Engineering Institution in Odisha, India is diminishing.

4. 6.3 Preferred location of library use by the undergraduates

The result on location of use revealed that the university main library is the mostly preferred place by the undergraduates while very few of them use the library remotely. The implication of this is that the university libraries may not have all the necessary equipment and resources that can enable the undergraduates to access information within the library domain irrespective of their location.

4.6.4 Frequency of use of library resources and services by the undergraduates

Frequency of use of library resources and services by the undergraduates is at varied frequency. The undergraduates used the library information resources and services on daily, 2-3times, once a week, monthly, occasionally, while some do not use the library information resources and services at all. Frequency of use of library resources and services by the undergraduates is on the average as revealed by the findings; frequency of use of library resources and services is not high as expected. However, it is worth knowing that of all the library resources, books were the most frequently used by the undergraduates. This may not be unconnected to the fact that there is availability and easy access to books in most university libraries and that book are the stock in trade of most university libraries especially in Nigeria.

In line with this study, Brock and Tabaei (2011) submitted that there is a declining usage of core library services by the undergraduates in a major north-eastern city in the USA. In Nigeria, Alade, Iyoro and Amusa (2014) and Nwezeh and Shabi (2011) concluded from the findings of their researches that majority of the undergraduates use library few days per week and that utilisation of the library by students on daily basis is low. In contrast to the findings of this study, Hussain and Abalkhail (2013) affirmed that majority of the students use library regularly with 89.3% of the respondents visiting the library regularly while the remaining 10.6% were not using the library regularly in a study done among the engineering students at King Saud University, Riyadh (KSA) in Saudi Arabia.

Frequency of use of electronic books was relatively low across the universities. This could be as a result of difficulty in reading from the screen, cost of printing pages, slow downloads and online access problems. In tandem with the findings of this study is the result of a research on students and staff awareness, acceptance and usage of e-books of two Queensland universities, in Australia, done by Borchert, Hunter, Macdonald and Tittle (2015), the findings show that e-books usage is relatively low. However, difficulty in reading from the screen for extended periods of time was the main reason for the low usage of e-books.

A varying degree of frequency of use of reference materials was observed among the respondents, specifically, most of the respondents indicated that they used reference materials occasionally while a higher percentage of the respondents do not consult reference materials at all. This implies that the undergraduates are not aware of the importance of reference materials. Majority of the respondents do not use reference materials frequently as expected. In support with the findings of this study, is the conclusion drawn by Okeke, Ogbenetga and Nwabu 2013 from a study done at academic libraries in Nigeria, on students' attitude towards the use of reference and information services. The findings from their research indicated that there is a low usage of reference sources and services due to stocked obsolete materials and inexperienced of the librarians at this section. At variant with the findings of this study, Abdullahi and Mamza 2014, research on students' usage of reference services in tertiary institutions in Nigeria, revealed that 90 (66.7%) of the respondents use library on a daily basis. The finding also indicated that majority of the students 98(72.6%) acknowledged using reference section. They therefore affirmed that there is a high level of utilisation of reference services by the students.

Generally, low use of CDROM resources at varying frequency was observed across the five universities in the study. However many of the respondents indicated they do not use CDROM resources at all. Low use of electronic journals was recorded among the respondents with many of them affirming that they do not use electronic journal at all. A higher percentage of the respondents claimed not to have used digital collections and institutional repository at all. There is a moderate use of online database among the respondents. It was however observed that indexes and abstracts were not frequently used across the five universities in the study. Remote use of library across the five universities in the study was very low. This may not be unconnected with the equipment and resources needed to assess information resources from the library remotely.

Loaning service is one of the services offered by the university libraries, which is very beneficial to the library users. However, the frequency of use of loaning services across the five universities in the study is considerably low. In fact, majority of the respondents affirmed they do not use loaning services at all. The findings further revealed that reference/help desk services are not frequently used by the respondents. Generally, the frequency of use of CAS among the respondents was on the average. Laminating/ binding and photocopy services were not frequently used. This may be because there are other places that provide these services apart from the university libraries which explain the low patronage of the services.

In line with the findings of this study, is the submission of Sahu, Swain and Rout (2012) in a survey on the low usage of library services of an engineering institution in Odisha, India. The findings of the study indicated that there is evident that the use of library use by the students is diminishing which may be due to the fact that students are comfortable and satisfied with the lecture notes given to them by their lecturers, their personal books and information from the internet.

4.6.5 Level of Information literacy skills of undergraduates

To find out the level of information literacy skills of undergraduates, the respondents were subjected to some questions on the indicators for measuring information literacy skills which are: ability to define and articulate the information needed; ability to locate information; ability to organise information; ability to communicate and ethically use information; and ability to assess and evaluate information. The findings ascertained that the undergraduates are able to define and articulate information they needed. The findings revealed that majority of the undergraduates were able to define and articulate when they need information. Therefore, their level on the ability to define and articulate information needed is high.

The undergraduates' ability to locate information is average as revealed by the findings of the study. Many of them could rarely find the information resources they are looking for in the library, many were not able to understand research topics, some of them reported that they have difficulty in finding information on specific topics while using the Internet while some of them cannot expand or refine search questions. The overall performance of the undergraduates in this indicator of information literacy skills, that is, ability to locate information is on the average as revealed by the findings. The implication is that, even though, the undergraduates' ability to define and articulate information needed is high, their ability to locate information is on the

average level. This implies that the undergraduates may have a high level of ability to define and articulate information it is not an indication that they will be able to locate the information needed.

Ability to organise information is also one of the indicators that measures information literacy skills. The findings revealed that undergraduates' ability to organise information is on the average. Some of them can limit online search by fields, some are familiar with the concept of a controlled vocabulary tool such as Thesaurus while some of them are always confused with so much information presented by the search engines. However, some of them can effectively use the library catalogue to search for specific library materials. The findings further revealed that the undergraduates' ability to communicate and ethically use information is high. The undergraduates exhibited high skills of their ability to communicate and ethically use information. Majority of them are aware of copyright law and its implications, majority of the undergraduates are familiar with concept of plagiarism and are able to create their own work based on the information they found. Most of them are able to cite information sources correctly.

The result showed that undergraduates' ability to evaluate and assess information is high. Majority of the undergraduates' understand that a scholarly journal article has been evaluated by an editorial board before publication, they are able to use information in critical thinking and problem solving, they are able to determine the quality of a page returned by a search engine and they are also to identify sentiments, bias and manipulation in any information sources. The overall result for the level of information literacy skills of undergraduates is relatively high.

In agreement with the findings of this study, Befus and Byrne (2011) asserted that undergraduates at Wayne State University, Detroit, USA are more confident in their ability to identify plagiarism but lacked confidence in finding articles for a topic. Dubick (2013) finding also agrees with the finding of this study, the researcher revealed that the strongest perceived skill that students at California Community College possess is an ability to identify and address the information needed. In contrast to the findings of this study, Ilogho and Nkiko 2014 asserted that undergraduates in Ogun state, Nigeria have low knowledge of information literacy skills and also show deficiency in identifying diverse information sources. This was found out through a survey done on information literacy skills of undergraduates in Ogun state, Nigeria. At variant with study also are the findings of these researchers Anafo and Filson (2014); Taylor and Dalal (2014) ; Ukepebor and Emojo (2012) and Conway (2011) who all submitted that majority of

the undergraduates did not know how to search the information from the library catalogue, failed to distinguish between library catalogue and bibliographic database. Majority of the undergraduates appeared to have difficulty in identification of the author web page and indicating they could not determine the author of a web page. Therefore they all concluded that that the respondents lack information literacy skills.

4.6.6 Level of library anxiety experienced by the undergraduates

The indicators for measuring library anxiety are barrier with staff, affective barriers, comfort with the library, knowledge of the library and mechanical barrier. The respondents were subjected to some questions on these indicators of library anxiety to evaluate their level of library anxiety. The result on the level of library anxiety experienced by the undergraduates revealed that they experience varied level of library anxiety, however the level of anxiety experienced is not high. The results showed that the undergraduates experienced moderate level of anxiety with the library staff. Some of them do not want to approach the librarians and other library staff, they believed they are bothering the library staff. Comfort with the library, majority of the undergraduates indicated that do not feel safe in the library, the library rules are too restrictive, graveyard silence in the library makes them uncomfortable. All these assertions contributed to the level of library anxiety experienced by the undergraduates as revealed by the findings of the study.

Knowledge of the library is also an aspect tested to know the level of library anxiety experienced by the undergraduates when using the library. The findings revealed that majority of the undergraduates do not know what to do when the books they are looking for is not on the shelf, this may implies that the undergraduates' knowledge of the library is low. Majority of the undergraduates do not know the resources that are available in their university library. Majority of the undergraduates returned books to the shelf after use while some of them do not know how to use e-resources available in the e-library. This implies that the undergraduates have low knowledge of the library, especially using the library resources and services as indicated by the result of the research. Furthermore, the findings also revealed that mechanical barrier such as use of photocopy machine, instructions for using the computers, using equipment in the library do not pose any barrier to the use of library by the undergraduates. The implication of this is that the present day undergraduates are technology savvy, hence, they experienced little or no mechanical barrier when using the technological advanced libraries. Generally, it can be

deduced that the undergraduates from the federal universities in North-central experienced moderate library anxiety.

To corroborate the findings of this study Biglu, Ghavami and Dadashpour (2016) opined that library anxiety of undergraduates at Ardabil University in all subscales is in the middle to low level. Components of library anxiety; barrier with staff, affective barriers, knowledge of the library, all contributed to the level of library anxiety experienced by the undergraduates. Bower (2010) submission that law students at Midwestern University exhibited moderate level of overall library anxiety and varying levels of library anxiety is also in line with the findings of this study. Furthermore, Seyyed Hosseini, Khosravi and Jahromi; Efranmanesh (2011); Carlile (2007); Jiao and Onwugbuezie (1996, 1997, 1999, 2004,) all submitted that undergraduates experience an average to high level of library anxiety. According to these empirical studies, library anxiety experienced by the undergraduates was due to the perception of the undergraduates of the library staff which is barrier with staff, affective barrier and comfort with the library. Lu and Adkins (2012) in agreement with the finding of this study asserted that mechanical barriers were the smallest source of library anxiety and that affective barrier and barrier with staff were the greatest sources of library anxiety. Mechanical barriers had less influence on the level of library anxiety among fifteen international graduate students in the United States.

4.6.7. Relationship between Personal factors and Library use by Undergraduates

A test of relationship between personal factors and library use had a positive correlation with the library use among undergraduates in federal universities in North-central, Nigeria ($r=.326^{**}$, $N=725$, $p<.05$). The personal factors variables all show positive significant relationships with library use by undergraduates except gender and level of study. The personal factors variables are academic discipline (department). ($r=.083^{*}$, $p(.025)<.05$, type of secondary school attended ($r=.090^{*}<.05$, $p(.016)<.05$), previous library experience ($r=.327^{**}$, $p(.000)<.05$, level of awareness of library resources and services ($r=.237^{**}$, $p(.000)<.05$), gender ($r=-.009$, $p(.805)>.05$ and level of study ($r=.061$, $p(.098)>.05$ respectively. As a result, the study established that there is a significant relationship between personal factors and library use by undergraduates in federal universities in North-central, Nigeria.

Some empirical studies affirmed the finding of this study Abusin et al 2011; Carlile 2007; and Mizrachi and Shoham 2004 submitted that personal factors of undergraduates influence the

use of their university libraries and also identified the various characteristics of undergraduates that contributed to the level of use of libraries. Stone and Collins (2013) also explored the personal factors of undergraduates at the University of Huddersfield and asserted that personal factors do have a relationship with the library use. In agreement with the study, Sivathaasan (2013) also identified that there is significant difference between personal factors of undergraduates at the University of Jaffna, Sri Lanka and library use. The findings indicated that gender and year of study have negative association with library use. Subject specialisation (academic discipline) is positively correlated and that there is no significant difference between gender, year of study, subject specialisation and library use. In contrast, Daramola (2013), Ozoemlem (2007) and Manda and Mulkangaro (2007) opined that male students used the library resources more than female students.

4.6.8 Relationship between Information literacy skills and Library use by the Undergraduates

The findings revealed that information literacy skills have positive influence on library use by the undergraduates in federal universities in North-central, Nigeria. There was a positive significant relationship between information literacy skills and library use by undergraduates ($r=.195^{**}$, $N=725$, $p<.05$). The test of relationship between each aspect of information literacy skills and library use further revealed that there were positive significant relationships between library use and ability to locate information ($r=.212^{**}$, $p(.000)<.05$), ability to organise information ($r=.212^{**}$, $p(.000)<.05$), ability to communicate and ethically use information ($r=.091^{*}$, $p(.014)<.05$), ability to assess and evaluate information ($r=.207^{**}$, $p(.000)<.05$), but had no significant relationship with ability to define and articulate information ($r=-.031$, $p(.411)>.05$).

The findings established that there is a positive relationship between information literacy skills and library use by undergraduates in federal universities in North-central, Nigeria. Nazir and Shabi (2016) opined that library users at a horticulture and forestry university in Pradesh, India are not well versed with most advanced search techniques and resort to search through simple search slots. Ojo and Akande (2005) asserted that access and use of online information resources by undergraduates at University College Hospital (UCH) Ibadan, Nigeria is very low and identified that lack of information retrieval skills for exploiting electronic resources thus making the level of library usage low.

4.6.9 Relationship between Library Anxiety and Library Use by Undergraduates in Federal Universities in North-central Nigeria

Library anxiety has a negative significant relationship on library use by the undergraduates. The implication of this is that library anxiety is an inhibitor to library use by undergraduates as indicated by the findings ($r=-.124^{**}$, $N=725$, $p<.05$). The studies done by Taylor 1990 and Melon 1986 corroborate the findings of this study. The researchers asserted that undergraduates find university library to be a threatening place and the process of research intimidating. This intimidating atmosphere makes the library users to end up using trial and error methods of research that limit their capability to satisfy their needs instead of seeking assistance. The researchers therefore concluded that undergraduates experienced library anxiety when using the library. In line with this study also, Onwegbezie, Jiao and Bostics (2006) noted that library anxiety hinder students from using the library. At variant with the findings of this study, is the assertion made by Jiao and Onwegbuzie (2007) that facing new technology exposed students to library anxiety and that mechanical barrier is the greater source of library anxiety among students.

4.6.10 Relationship between Personal factors and Information literacy skills of Undergraduates in Federal universities in North-central, Nigeria

There was a significant relationship between personal factors and information literacy skills of undergraduates in federal universities in North-central, Nigeria ($r=.511^{**}$, $N=725$, $p<.05$). Therefore, the findings established that personal factors have positive influence on information literacy skills of undergraduates studied. The implication of this is that as there will be variance in personal factors of each undergraduate, there will also be variance in the level of information literacy skills of each undergraduate. Furthermore, personal factors is a determinant for the level of information literacy skills of undergraduates, since there is a strong positive influence of personal factors on information literacy skills of undergraduates. In line with the findings of this study Marvel (2015) affirmed from the study done on students' perception of individual information literacy skills and application of information skills at Casper community College at the University of Wyoming USA that as students move further through their academic programs, they are likely to score higher in information literacy skills assessment. Ogunlana et al (2013) affirmed that there is no significant difference between male and female perception of information literacy skills in public universities in Ogun state, Nigeria. In contrast to the

findings of this study, Schubert et al (2011) opined that level of study is not a factor influencing the level of information literacy skills of students in Singapore.

4.6.11 Relationship between Information literacy skills and Library anxiety of undergraduates in Federal universities in North-Central, Nigeria

The study established that there was no significant relationship between information literacy skills and library anxiety of undergraduates in federal universities in North-central, Nigeria ($r = -.046$, $N = 725$, $p > .05$). Therefore, library anxiety had no influence on information literacy skills of undergraduates in federal universities in North-central, Nigeria. The implication of this is that, library anxiety experienced by the undergraduates has no relationship with the level of information literacy skills of undergraduates. Library anxiety does not determine the level of information literacy skills of undergraduates and there is no correlation whatsoever between library anxiety and information literacy skills of undergraduates. The findings of the investigation on the relationship between library anxiety and attaining information literacy skills done by Gross and Latham (2007) is in agreement with this study. The findings from their study did not find any association between information literacy skills scores and library anxiety scores. Haglund and Herron (2008) also submitted that there is no correlation between performance in information literacy skills test and the library anxiety experienced by the undergraduates.

4.6.12. Composite influence of Personal Factors, Information literacy skills and Library anxiety on Library use by Undergraduates

Personal factors, information literacy skills and library anxiety were correlated with the library use by undergraduates in federal universities in North-central, Nigeria using the analysis of variance (ANOVA). The result revealed that the composite influence of personal factors, information literacy skills and library anxiety was significant on library use by undergraduates. The multiple correlations (R) of .479, and a multiple R square .230 were obtained. This implies that 23.0% of the variance in the library use was accounted for by three predictor variables (personal factors, information literacy skills and library anxiety), when taken together. The analysis of variance (ANOVA) for the regression yielded an F -ratio of 13.205 (significant at 0.05 level). This implies that the joint contribution of the independent variables to the dependent variable was significant and that other variables not included in this model may have accounted for the remaining variance. Therefore, the study submitted that personal factors, information

literacy skills and library anxiety are factors influencing library use by undergraduates in Federal universities in North-central, Nigeria.

4.6.13. Relative contribution of Personal factors, Information literacy skills and Library anxiety on Library use by Undergraduates

The hierarchical standardised regression coefficient was used to determine the relative contributions of the independent variables (Personal factors, Information literacy skills and Library anxiety) to the dependent variable (library use). The relative contributions of each of the independent variables to the dependent variable indicated that personal factors had significant relative contribution, information literacy skills had no significant relative contribution while library anxiety had significant relative contribution. The implication of this is that information literacy skills on its own as independent variable cannot predict library use by undergraduates except in combination with other independent variables (personal factors and library anxiety). However, as indicated by the findings, personal factors and library anxiety are significant predictors of library use by undergraduates. The study therefore submitted that information literacy skills is not a predictor or determinant factor of library use by undergraduates while personal factors and library anxiety is a predictor of library use by the undergraduates.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter presents the summary of findings, conclusion and recommendations. The conclusion is presented based on the result of data analysis while contribution of the study to knowledge was identified and recommendations for future research proffered.

5.2 Summary of the findings

The study is on the influence of personal factors, information literacy skills and library anxiety on library use by undergraduates in federal universities in North-central, Nigeria. The findings from the data analysed and the hypotheses tested revealed that:

- i. Undergraduates in federal universities in North-central, Nigeria mainly used their universities libraries for the purpose of study and they preferred university main libraries.
- ii. The frequency of use of library resources and services by the undergraduates is not high. However, books were mostly use by the undergraduates compared to other resources and services available in the university libraries.
- iii. Library use by the undergraduates is not high there was a moderate level of use of the university libraries by the undergraduates in federal universities in North-central, Nigeria.
- iv. The level of information literacy skills of the undergraduates in federal universities in North-central was high.
- v. The undergraduates exhibited a moderate level of library anxiety, an indication that the level of library anxiety experienced by the undergraduates in federal universities in North-central, Nigeria is not high.
- vi. Academic discipline, type of secondary school attended, previous library experiences/skills and level of awareness of library resources and services influence library use by the undergraduates while gender and level of study did not influence library use by the undergraduates in federal universities in North-central, Nigeria.
- vii. Personal factors (gender, academic disciplines, types of secondary school attended, level of study, previous library experiences/skills and level of awareness of library resources and services) had a positive significant relationship with library use by undergraduates in federal universities in North-central, Nigeria.

- viii. Information literacy skills (ability to define and articulate information, ability to locate information, ability to organise information, ability to communicate and ethically use information and ability to assess and evaluate information) had a positive significant influence on library use by undergraduates in federal universities in North-central, Nigeria.
- ix. There was a negative significant relationship between library anxiety and library use hence, library anxiety has a negative influence on library use by undergraduates in federal universities in North-central, Nigeria.
- x. There was a positive significant relationship between personal factors and information literacy skills of the undergraduates. Therefore personal factors had a positive influence on information literacy skills of undergraduates in federal universities in North-central, Nigeria.
- xi. Library anxiety (affective barrier, barrier with staff, comfort with the library, knowledge of the library and mechanical barrier) had no influence on information literacy skills. Therefore, there was no significant relationship between library anxiety and information literacy skills of undergraduates in federal universities in North-central, Nigeria.
- xii. There was a significant joint contribution of personal factors, information literacy skills and library anxiety on library use by undergraduates in federal universities in North-central, Nigeria.

5.3 Conclusion

Personal factors, information literacy skills and library anxiety have significant relationship with library use by the undergraduates. However, personal factors and information literacy skills have positive significant influence on library use by the undergraduates while library anxiety has negative significant influence on library use by the undergraduates. Therefore library anxiety is an inhibitor to library use by the undergraduates. The level of use of the university library by the undergraduates is not as high as expected considering the amount of fund expended on library information resources and services. Personal factors, information literacy skills and library anxiety have joint influence on library use by undergraduates in federal universities in North-central, Nigeria.

5.4 Recommendations

In view of the findings of the study, the following recommendations were made:

1. There is a need for awareness programme on the importance of library use and also to intimate the undergraduates with the available library resources and services in the university library. This will enable undergraduates to form a positive opinion, thus further enhancing the propensity of use of library resources and services. Awareness should also be created on other libraries within the university community such as faculty library and departmental library.
2. The physical use of library is still very relevant and important in this part of the world. University libraries should be more resourceful to attract more library users through current awareness service programme.
3. Although the findings from the study indicated that undergraduates have high information literacy skills. The overall performance of the undergraduates on ability to locate information is average. It is therefore imperative that undergraduates be trained on this aspect of information literacy skills. This could be achieved through remedial course by integrating information literacy skills in the curriculum.
4. The library anxiety experienced by the undergraduates can be brought to the barest minimum if the library staff is more friendly, cooperative and helpful. This can be achieved when the librarians take into considerations and plan for the experiences, needs and expectation of the undergraduates which will inform them of how to provide and improve their services.

5.5 Contribution of the study to knowledge

This study has contributed to knowledge in librarianship in the following ways:

1. This study contributed to knowledge by establishing the fact that personal factors of the undergraduates are determinants of library use by the undergraduates in federal universities in North-central, Nigeria.
2. It is evident from the findings of this study that library anxiety was a major inhibitor to library use by undergraduates as it tends to have a very strong negative influence on library use by undergraduates in federal universities in North-central, Nigeria.
3. The study established that high information literacy skills did not predict the level of use of university library by undergraduates in federal universities in North-central, Nigeria.

4. The study also established that personal factors, information literacy skills and library anxiety individually and jointly influence library use by the undergraduates in federal universities in North-central, Nigeria.
5. The findings of this study validated the theories (Theory of Constructivism, Competency Theory and Library Anxiety Theory) used in the study as all the variables were found to be significant.

5.6 Suggestions for further study

The followings are suggested for further studies:

1. Influence of personal factors, information literacy skills and library anxiety on library use by undergraduates in other geo-political zones in Nigeria.
2. Personal factors, information literacy skills and library anxiety on library use by postgraduate students in universities in Nigeria.
3. Effects of library anxiety on library use in private universities in Nigeria.
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APPENDIX I

Department of Library,
Archival and Information Studies,
Faculty of Education,
University of Ibadan.

June 2017

Questionnaire on Library Use

I am a doctoral student of the above named university. I am working on factors that may influence library use by undergraduates. You have been selected to participate in the study. Please kindly respond to the questions.

Your response is very important to my study and you will be playing an important role in the completion of my doctoral programme. Your response will be treated with utmost confidentiality and anonymity will be preserved. Please answer all questions as best as you can.

Thanks for your cooperation.

Mrs C.O Adeeko

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Ph.D Student

LIBRARY USE QUESTIONNAIRE (PFILCLALUQ)

Section A: **Personal factors** (academic discipline, gender, age, level of study, previous library experiences/ skills and level of awareness of library resources and services)

1. Name of Institution..... Faculty.....
2. Academic discipline (Department).....
3. Level: 200() 300() 400()
4. Gender : Male () Female ()
5. Type of secondary school attended: Private () Public ()
6. Age : 15-20 () 21-25 () 26-30 ()
7. Previous library experiences/ skills.

Please tick as appropriate, using the rating scale to describe your previous library experiences/skills

VME-Very much like me, SLM-Somewhat like me, NVM-Not very much like me,
NLM-Not like me

Previous library experiences/skills	VME	SLM	NVM	NLM
I can use the OPAC correctly before coming to the university				
I have the necessary skills for finding academic resources in the library				
I have necessary skills for using the e- library resources				
My university library is the first library I have ever used				
The secondary school I attended does not have a school library				
I have never used a library before coming to the university				

8. Level of awareness of library resources and services

Please tick as appropriate to indicate your level of awareness of availability of your university library resources and services. VHS-Very Highly Aware, HA-Highly Aware, A-Aware, NA-Not Aware

Library resources and services	VHS	HA	A	NA
Books				
Journals				
Newspapers				
Reference materials				
Reserved book section				
Electronic books				
CDROM resources				
Online databases				
Electronic journals				
Thesis/ dissertation/ projects				
Indexes/ abstracts				
Institutional repository				
Remote accessibility of library resources				
Lamination/ Binding				
Loaning services				
Photocopy services				
Current awareness				
Help desk				

9. Section B: Information Literacy Skills

Please tick the appropriate box, using the rating scale

SA – Strongly Agree, A –Agree, D –Disagree, SD-Strongly Disagree

	Items	SA	A	D	SD
A	Ability to define and articulate information needed				
i.	I am able to formulate questions based on information needed				
ii	I am able to understand research topic				
iii	I know how to expand or refine search questions				
iv.	I am able to create my own work based on the information found				
B	Ability to locate information				
i.	I rarely find what I am looking for in the library				
ii.	I find library a difficult and confusing place due to so many options of research				
iii.	I know how to use Boolean operators truncation for searching				
iv.	I experience much difficulty in finding information on specific topics while using the Internet				
C	Ability to organise information				
i.	I can limit online search by fields				
ii.	I am familiar with the concept of a controlled vocabulary tool, such as Thesaurus				
iii.	I am always confused with so much information presented by the search engines				
iv.	I can effectively use the library catalogue (online and manual) to search for specific library materials				
D	Ability to communicate and ethically use information				
i.	I know about copyright law				
ii.	I am familiar with the concept of plagiarism				

iii.	I am able to create my own work based on the information found				
iv.	I am able to cite information sources correctly				
E	Ability to assess and evaluate information				
i.	I understand that a scholarly journal article has been evaluated by an editorial board before publication.				
ii.	I am able to use information in critical thinking and problem solving				
iii.	I do not believe it is possible to determine the quality of a page returned by a search engine				
iv.	I am able to identify sentiments, bias and manipulation in any information sources				

10. Section C: Library anxiety

Please tick as appropriate: A=Strongly Disagree, B=Disagree, C=Agree, D=Strongly Agree

		A	B	C	D
A	Affective barrier				
i.	I am embarrassed that I don't know how to use the library				
ii.	The university library is confusing to me				
iii.	I am unsure about how to begin my search				
iv.	I enjoy learning new things about the library				
v.	The library never has the materials I need				
vi.	I can never find things in the library				
B	Barrier with staff				
i.	I feel I am bothering the reference librarians if I ask question				
ii.	Librarians do not have time to help me				
iii.	The reference librarians are not approachable				
iv.	The librarians are unapproachable				
v.	The reference librarians are unhelpful				
vi.	If I cannot find a book on the shelf or online in the e-library the library staff will help me				
C	Comfort with the library				
i.	I get confused trying to find my way around the library				
ii.	I feel comfortable in the library				
iii.	I feel safe in the library				
iv.	The library rules are too restrictive				
v.	I do not feel physically safe in the library				
vi.	The graveyard silence in the library makes me uncomfortable				
D	Knowledge of the library				
i.	I do not know what to do next when the book I need is not on the shelf				
ii.	The library is an important part of my institution				
iii.	I want to learn to do my own search				

iv.	I do not know what resources are available in the library				
v.	I always return books used to shelf after use				
vi.	I do not know how to use e-resources available in the e-library				
E	Mechanical barrier				
i.	I can always ask a librarian if I do not know how to work a piece of equipment in the library				
ii.	The computer printers are often out of paper				
iii.	The directions for using computers are not clear.				
iv.	Good instructions for using the library's computers are available				
v.	The photocopy machines are usually out of order				
vi.	I prefer Google search to using the library				

11. Section D: Library use

Please tick as appropriate

Purpose of library use

Why do you visit your library?

- i. To study ()
- ii. To meet with friends ()
- iii. To get information ()
- iv. To borrow/return/ renew books ()
- vi. To read my lecture notes for test and examination ()

Location of use

Which of these locations best describe the preferred place of your library use?

- i. University main library ()
- ii. Faculty library ()
- iii. Departmental library ()
- iv. Remote use ()

Frequency of use of information resources and services

How often do you make use of the following library resources and services for academic related exercise? Please tick the appropriate box as applicable

Library resources and services	Daily	2-3times a week	Once a week	Monthly	Occasionally	Not at all
Books						
Journals						
Newspapers						
Reference materials						
Electronic books						
CDROM resources						
Electronic Journals						
Digital collections						
Institutional repository						
Online databases						
Indexes/Abstracts						
Remote use of library resources						
Loaning services						
Reference assistance/ Help desk						
Thesis/ Dissertation/ Projects						
Current awareness						
Lamination/Binding						
Photocopy services						

Thank you!

APPENDIX II

Test of norm on the frequency of use of library resources and services by Undergraduates in Federal Universities in North-Central, Nigeria

Maximum score = 108, Interval = $\frac{108}{3} = 36$, Classification = High, Moderate, Low

Universities	Interval	Range	Level	Frequency (%)
University of Jos N = 134	1-36		Low	54 40.3
	37-72	45.98	Moderate	62 46.3
	73-108		High	18 13.4
University of Ilorin N = 196	1-36		Low	42 21.4
	37-72	59.21	Moderate	83 42.3
	73-108		High	71 36.2
Federal University Lokoja N = 56	1-36		Low	22 39.3
	37-72	43.55	Moderate	30 53.6
	73-108		High	4 7.1
Federal University Lafia N = 74	1-36		Low	7 9.5
	37-72	68.22	Moderate	34 45.9
	73-108		High	33 44.6
University of Abuja N = 265	1-36		Low	24 9.1
	37-72	58.24	Moderate	182 68.7
	73-108		High	59 22.3

APPENDIX III

Level of the undergraduates' ability to define and articulate information needed

Maximum score = 16, Classification = High, Moderate, Low

Universities	Interval	Range	Level	Frequency (%)	
University of Jos N = 134	1-5		Low	6	4.5
	6-10		Moderate	16	11.9
	11-16	12.54	High	112	83.6
University of Ilorin N = 196	1-5		Low	9	4.6
	6-10		Moderate	60	30.6
	11-16	11.40	High	127	64.8
Federal N = 56 University Lokoja	1-5		Low	-	
	6-10		Moderate	8	14.3
	11-16	12.79	High	48	85.7
Federal N = 56 University Lafia	1-5		Low	4	5.4
	6-10		Moderate	20	27.0
	11-16	11.30	High	50	67.6
University of Abuja N = 265	1-5		Low	17	6.4
	6-10		Moderate	74	27.9
	11-16	11.42	High	174	65.7

APPENDIX IV

Level of undergraduates' ability to locate information

Maximum score = 16, Classification = High, Moderate, Low

Universities	Interval	Range	Level of awareness	Frequency (%)	
University of Jos N = 134	1-5		Low	15	11.2
	6-10	8.97	Moderate	82	61.2
	11-16		High	37	27.6
University of Ilorin N = 196	1-5		Low	19	9.7
	6-10	9.46	Moderate	99	50.5
	11-16		High	78	39.8
Federal N = 56 University Lokoja	1-5		Low	7	12.5
	6-10	8.07	Moderate	39	69.6
	11-16		High	10	7.9
Federal N = 56 University Lafia	1-5		Low	8	10.8
	6-10	9.89	Moderate	30	40.5
	11-16		High	36	48.6
University of Abuja N = 265	1-5		Low	28	10.6
	6-10	10.92	Moderate	77	29.1
	11-16		High	160	60.4

APPENDIX V

Level of undergraduates' ability to organise information

Maximum score = 16, Classification = High, Moderate, Low

Universities	Interval	Range	Level of awareness	Frequency (%)
University of Jos N = 134	1-5		Low	9 6.7
	6-10	10.10	Moderate	62 46.3
	11-16		High	63 47.0
University of Ilorin N = 196	1-5		Low	7 3.6
	6-10	10.85	Moderate	68 34.7
	11-16		High	121 61.7
Federal N = 56 University Lokoja	1-5		Low	2 3.6
	6-10	10.14	Moderate	33 58.9
	11-16		High	21 37.5
Federal N = 56 University Lafia	1-5		Low	4 5.4
	6-10	10.92	Moderate	26 35.1
	11-16		High	44 59.5
University of Abuja N = 265	1-5		Low	14 5.3
	6-10		Moderate	83 31.3
	11-16	11.2	High	168 63.4

APPENDIX VI

Level of undergraduates' ability to communicate and ethically use of information

Maximum score = 16, Classification = High, Moderate, Low

Universities	Interval	Range	Level	Frequency (%)	
University of Jos N = 134	1-5		Low	8	6.0
	6-10		Moderate	25	18.7
	11-16	11.93	High	101	75.4
University of Ilorin N = 196	1-5		Low	6	3.1
	6-10		Moderate	68	34.7
	11-16	11.15	High	122	62.2
Federal N = 56 University Lokoja	1-5		Low	-	
	6-10		Moderate	11	19.6
	11-16	12.89	High	45	80.4
Federal N = 56 University Lafia	1-5		Low	-	
	6-10		Moderate	19	25.7
	11-16	11.83	High	55	74.3
University of Abuja N = 265	1-5		Low	8	3.0
	6-10		Moderate	65	24.5
	11-16	11.59	High	192	72.5

APPENDIX VII

Level of undergraduates' ability to evaluate information

Maximum score = 16, Classification = High, Moderate, Low

Universities	Interval	Range	Level of awareness	Frequency (%)	
University of Jos N = 134	1-5		Low	9	6.7
	6-10		Moderate	35	26.1
	11-16	11.37	High	90	67.2
University of Ilorin N = 196	1-5		Low	9	4.6
	6-10		Moderate	54	27.6
	11-16	11.43	High	133	67.9
Federal N = 56 University Lokoja	1-5		Low	1	1.8
	6-10		Moderate	19	33.9
	11-16	11.25	High	36	64.3
Federal N = 56 University Lafia	1-5		Low	-	
	6-10		Moderate	14	18.9
	11-16	12.14	High	60	81.1
University of Abuja N = 265	1-5		Low	9	3.4
	6-10		Moderate	70	26.4
	11-16	11.63	High	186	70.2

APPENDIX VIII

H_{01a}: There is no sig. relationship between Personal Factors and library use by undergraduates in University of Jos.

PPMC of Personal Factors and Library use by undergraduates in University of Jos

	1	2	3	4	5	6	7	\bar{x}	S.D
1	1							48.74	23.09
2	-.010 (.911)	1						1.49	0.50
3	.180* (.037)	.104 (.230)	1					4.57	2.54
4	.129 (.139)	-.094 (.282)	.099 (.255)	1				1.31	0.46
5	-.048 (.578)	.037 (.671)	-.088 (.929)	-.032 (.715)	1			2.01	0.82
6	.117 (.177)	-.173* (.046)	.029 (.741)	.207* (.016)	-.043 (.625)	1		13.63	3.92
7	.303** (.000)	.066 (.451)	.133 (.124)	.058 (.503)	-.019 (.832)	.187* (.030)	1	47.13	9.98

*Sig at .05 level, **Sig. at .01 level

Key

- 1 = Library use
- 2 = Gender
- 3 = Academic discipline (Department)
- 4 = Type of secondary school attended
- 5 = Level of study
- 6 = Previous library experience
- 7 = Level of awareness of library resources

Appendix xiii showed that there were positive sig. relationships between Library Use and Academic discipline (Department) ($r = .180$, $p(.037) < .05$) and Level of awareness of library resources ($r = .303^{**}$, $p(.000) < .01$). There was no sig. relationship between Library use and Gender ($r = -.010$, $p(.911) > .05$), Secondary school attended ($r = .129$, $p(.139) > .05$), Level of study ($r = -.048$, $p(.578) > .05$) and Previous Library Experience ($r = .117$, $p(.177) > .05$) respectively

APPENDIX IX

Ho 1b: There is no significant relationship between Personal Factors and library use by undergraduates in University of Ilorin.

PPMC of Personal Factors and Library use by undergraduates in University of Ilorin

	1	2	3	4	5	6	7	\bar{x}	S.D
1	1							64.11	25.28
2	-.157* (.028)	1						1.54	0.50
3	.096 (.180)	-.008 (.907)	1					4.76	2.51
4	.078 (.277)	.074 (.301)	.054 (.451)	1				1.48	0.50
5	-.002 (.978)	-.017 (.816)	.028 (.702)	.089 (.213)	1			2.04	0.82
6	.259** (.000)	-.029 (.691)	.100 (.162)	-.068 (.344)	-.241** (.001)	1		16.30	4.08
7	.035 (.626)	.147* (.040)	-.059 (.408)	-.168* (.019)	-.122 (.089)	.255** (.000)	1	47.69	11.48

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library use

2 = Gender

3 = Academic discipline (Department)

4 = Type of secondary school attended

5 = Level of study

6 = Previous library experience

7 = Level of awareness of library resources

Appendix xi showed that there were sig. relationships between Library Use and Previous library experience ($r = .259^{**}$, $p(.000) < .01$), Gender ($r = -.157^*$, $p(.028) < .05$). However, there were no sig. relationship between Library use and Academic discipline (Department) ($r = .096$, $p(.180) > .05$), Secondary school attended ($r = .078$, $p(.277) > .05$), Level of study ($r = -.002$, $p(.978) > .05$), and Level of awareness of library resources ($r = .035$, $p(.626) > .05$) respectively

APPENDIX X

H_{01c}: There is no sig. relationship between Personal Factors and library use by undergraduates in Federal University, Lokoja.

PPMCoF Personal Factors and Library use by undergraduates in Federal University, Lokoja

	1	2	3	4	5	6	7	\bar{x}	S.D
1	1							46.80	17.15
2	-.393** (.003)	1						1.45	0.50
3	.161 (.237)	.171 (.206)	1					4.43	2.81
4	.278* (.038)	-.115 (.398)	.043 (.755)	1				1.66	0.48
5	-.011 (.935)	-.390** (.003)	-.206 (.127)	-.085 (.533)	1			1.34	0.69
6	.393** (.003)	-.218 (.106)	-.041 (.762)	.312* (.019)	.089 (.513)	1		12.75	3.44
7	.403** (.002)	-.138 (.310)	-.047 (.733)	.233 (.084)	-.188 (.165)	.324** (.015)	1	54.05	13.22

G*Sig at .05 level, **Sig. at .01 level

Key

1 = Library use

2 = Gender

3 = Academic discipline (Department)

4 = Type of secondary school attended

5 = Level of study

6 = Previous library experience

7 = Level of awareness of library resources

Appendix xi showed that there were sig. relationships between Library Use and Gender ($r = -.393^{**}$, $p(.003) < .01$), Type of secondary sch. ($r = .278^*$, $p(.038) < .05$), Previous library experience ($r = .393^{**}$, $p(.000) < .01$) and Level of awareness of library resources ($r = .403^{**}$, $p(.002) < .01$). However, there were no sig. relationship between Library use and Academic discipline (Department) ($r = .161$, $p(.237) > .05$), Level of study ($r = -.011$, $p(.935) > .05$) respectively

APPENDIX XI

Ho 1d: There is no significant relationship between Personal Factors and library use by undergraduates in Federal University, Lafia.

PPMC Personal Factors and Library use by undergraduates in Federal University, Lafia

	1	2	3	4	5	6	7	\bar{x}	S.D
1	1							74.11	18.72
2	.198 (.091)	1						1.54	0.50
3	-.405** (.000)	-.147 (.211)	1					4.99	2.50
4	.217 (.063)	.029 (.804)	-.038 (.746)	1				1.49	0.50
5	.014 (.903)	-.138 (.241)	.141 (.230)	-.106 (.368)	1			1.97	0.78
6	.029 (.809)	-.043 (.716)	-.277* (.017)	.038 (.746)	.019 (.875)	1		15.28	3.40
7	.122 (.299)	.057 (.632)	.048 (.682)	-.218 (.062)	-.035 (.768)	-.157 (.182)	1	52.78	11.87

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library use

2 = Gender

3 = Academic discipline (Department)

4 = Type of secondary school attended

5 = Level of study

6 = Previous library experience

7 = Level of awareness of library resources

Appendix xi showed that there were sig. relationships between Library Use and Academic discipline (Department) ($r = -.405^{**}$, $p(.000) < .01$). However, there were no significant relationship between Library use and Gender ($r = .198$, $p(.091) > .05$), Type of secondary school ($r = .217$, $p(.063) > .05$), Level of study ($r = .014$, $p(.903) > .05$), Previous library experience ($r = .029$, $p(.809) > .05$) and Level of awareness of library resources ($r = .122$, $p(.299) > .05$) respectively.

APPENDIX XII

Ho 1e: There is no sig. relationship between Personal Factors and library use by undergraduates in University of Abuja.

PPMC of Personal Factors and Library use by undergraduates in University, of Abuja

	1	2	3	4	5	6	7	\bar{x}	S.D
1	1							60.73	18.94
2	.100 (.106)	1						1.46	0.50
3	.086 (.165)	.068 (.271)	1					4.91	2.79
4	-.029 (.637)	.156* (.011)	.041 (.509)	1				1.58	0.49
5	.099 (.107)	.049 (.422)	.046 (.456)	-.058 (.347)	1			2.09	0.77
6	.434** (.000)	-.082 (.183)	-.002 (.979)	-.009 (.890)	.067 (.280)	1		16.22	4.03
7	.414** (.000)	-.008 (.901)	.075 (.225)	.003 (.997)	-.038 (.534)	.411** (.000)	1	46.92	10.84

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library use

2 = Gender

3 = Academic discipline (Department)

4 = Type of secondary school attended

5 = Level of study

6 = Previous library experience

7 = Level of awareness of library resources

Appendix xii showed that there were sig. relationships between Library Use and Previous library experience ($r = .434^{**}$, $p(.000) < .01$) and Level of awareness of library resources ($r = .414^{**}$, $p(.000) < .01$). However, there were no sig. relationship between Library use and Gender ($r = .100$, $p(.106) > .05$), Academic discipline (Department) ($r = .086$, $p(.165) > .05$), Type of secondary school ($r = -.029$, $p(.637) > .05$), Level of study ($r = .099$, $p(.107) > .05$) respectively.

APPENDIX XIII

Combination of the Universities correlation matrix showing the relationship between Personal factors and Library Use by Undergrads in North-Central Nigeria

PPMC of Personal factors and Library Use by undergraduates in North-Central Nigeria

	University of Jos	University of Ilorin	Federal Univ. Lokoja	Federal Univ. Lafia	University of Abuja
	Library use	Library use	Library use	Library use	Library use
Library use	1	1	1	1	1
Gender	-.010 (.911)	-.157* (.028)	-.393** (.003)	.198 (.091)	.100 (.106)
Academic discipline (Department)	.180* (.037)	.096 (.180)	.161 (.237)	-.405** (.000)	.086 (.165)
Type of secondary school attended	.129 (.139)	.078 (.277)	.278* (.038)	.217 (.063)	-.029 (.637)
Level of study	-.048 (.578)	-.002 (.978)	-.011 (.935)	.014 (.903)	.099 (.107)
Previous library experience	.117 (.177)	.259** (.000)	.393** (.003)	.029 (.809)	.434** (.000)
Level of awareness of library resources	.303** (.000)	.035 (.626)	.403** (.002)	.122 (.299)	.414** (.000)

*Sig at .05 level, **Sig. at .01 level

University of Jos: Appendix xiii showed that there were positive sig. relationships between Library Use and Academic discipline (Department) ($r = .180, p(.037) < .05$) and Level of awareness of library resources ($r = .303^{**}, p(.000) < .01$). There was no sig. relationship between Library use and Gender ($r = -.010, p(.911) > .05$), Secondary school attended ($r = .129, p(.139) > .05$), Level of study ($r = -.048, p(.578) > .05$) and Previous Library Experience ($r = .117, p(.177) > .05$) respectively

University of Ilorin: Appendix xiii showed that there were sig. relationships between Library Use and Previous library experience ($r = .259^{**}, p(.000) < .01$), Gender ($r = -.157^*, p(.028) < .05$). However, there were no sig. relationship between Library use and Academic discipline (Department) ($r = .096, p(.180) > .05$), Secondary school attended ($r = .078, p(.277) > .05$), Level of study ($r = -.002, p(.978) > .05$), and Level of awareness of library resources ($r = .035, p(.626) > .05$) respectively

Federal University Lokoja: Appendix xiii showed that there were sig. relationships between Library Use and Gender ($r = -.393^{**}, p(.003) < .01$), Type of secondary school ($r = .278^*, p(.038) < .05$), Previous library experience ($r = .393^{**}, p(.000) < .01$) and Level of awareness of library resources ($r = .403^{**}, p(.002) < .01$). However, there were no sig. relationship between Library use and Academic discipline (Department) ($r = .161, p(.237) > .05$), Level of study ($r = -.011, p(.935) > .05$) respectively

Federal University Lafia: Appendix xiii showed that there were sig. relationships between Library Use and Academic discipline (Department) ($r = -.405^{**}, p(.000) < .01$). However, there were no sig. relationship between Library use and Gender ($r = .198, p(.091) > .05$), Type of secondary school ($r = .217, p(.063) > .05$), Level of study ($r = .014, p(.903) > .05$), Previous library experience ($r = .029, p(.809) > .05$) and Level of awareness of library resources ($r = .122, p(.299) > .05$) respectively

University of Abuja: Appendix xiii showed that there were significant relationships between Library Use and Previous library experience ($r = .434^{**}, p(.000) < .01$) and Level of awareness

of library resources ($r = .414^{**}$, $p(.000) < .01$). However, there were no sig, relationship between Library use and Gender ($r = .100$, $p(.106) > .05$), Academic discipline (Department) ($r = .086$, $p(.165) > .05$), Type of secondary school ($r = -.029$, $p(.637) > .05$), Level of study ($r = .099$, $p(.107) > .05$) respectively

APPENDIX XIV

Ho 2a: There is no significant relationship between Information Literacy Skills and Library use by Undergrads in University of Jos

PPMC of Information Literacy Skills and Library Use by undergraduates in University of Jos

	1	2	3	4	5	6	\bar{x}	S.D
1	1						48.74	23.09
2	.187* (.030)	1					12.55	2.77
3	.186* (.031)	.244** (.005)	1				8.98	2.84
4	.300** (.000)	.404** (.000)	.414** (.000)	1			10.10	2.77
5	.153 (.077)	.536** (.000)	.031 (.719)	.312** (.000)	1		11.93	3.02
6	.243** (.005)	.371** (.000)	.121 (.163)	.360** (.000)	.635** (.000)	1	11.37	2.93

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library Use

2 = Ability to Define and Articulate Information

3 = Ability to Locate Information

4 = Ability to Organize Information

5 = Ability to Communicate and Ethically Use Information

6 = Ability to Evaluate Information

Appendix xiv showed that there were sig. relationships between Library use and Ability to Define and Articulate Information ($r = .187^*$, $p(.030) < .05$), Ability to Locate Information ($r = .186^*$, $p(.031) < .05$), Ability to Organize Information ($r = .300^{**}$, $p(.000) < .01$), Ability to Evaluate Information ($r = .243^{**}$, $p(.005) < .05$). However, there was no sig. relationship between Library use and Ability to Communicate and Ethically Use Information ($r = .153$, $p(.077) > .05$).

APPENDIX XV

Ho 2b: There is no significant relationship between Information Literacy skills and Library use by Undergraduates in University of Ilorin

PPMC of Information Literacy Skills and Library Use by undergraduates in University of Ilorin

	1	2	3	4	5	6	\bar{x}	S.D
1	1						64.11	25.28
2	-.153* (.032)	1					11.40	2.90
3	.185* (.010)	.277** (.000)	1				9.46	2.77
4	.114 (.111)	.500** (.000)	.444** (.000)	1			10.85	2.58
5	.056 (.438)	.334** (.000)	.250** (.000)	.372** (.000)	1		11.15	2.85
6	.140* (.050)	.277** (.000)	.287** (.000)	.367** (.000)	.639** (.000)	1	11.43	2.93

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library Use

2 = Ability to Define and Articulate Information

3 = Ability to Locate Information

4 = Ability to Organise Information

5 = Ability to Communicate and Ethically Use Information

6 = Ability to Evaluate Information

Appendix xv showed that there were sig. relationships between Library use and Ability to Define and Articulate Information ($r = -.153^*$, $p(.032) < .05$), Ability to Locate Information ($r = .185^*$, $p(.010) < .05$) and Ability to Evaluate Information ($r = .140^*$, $p(.050) < .05$). However, there was no significant relationship between Library use and Ability to Organize Information ($r = .114$, $p(.111) > .05$) and Ability to Communicate and Ethically Use Information ($r = .056$, $p(.438) > .05$) respectively

APPENDIX XVI

Ho 2c: There is no significant relationship between Information Literacy Skills and Library use by Undergraduates in Federal University Lokoja

PPMC Information Literacy Skills and Library Use by undergraduates in Federal University Lokoja

	1	2	3	4	5	6	\bar{x}	S.D
1	1						46.80	17.15
2	.481** (.000)	1					12.79	2.37
3	.176 (.195)	-.100 (.462)	1				8.07	2.46
4	.376** (.004)	.347** (.009)	.279* (.037)	1			10.14	2.53
5	.344** (.009)	.521** (.000)	.031 (.822)	.391** (.003)	1		12.89	2.75
6	.418** (.001)	.361** (.006)	.404** (.002)	.291* (.030)	.567** (.000)	1	11.25	2.42

*Sig at .05 level, **Sig. at .01 level

Key

- 1 = Library Use
- 2 = Ability to Define and Articulate Information
- 3 = Ability to Locate Information
- 4 = Ability to Organise Information
- 5 = Ability to Communicate and Ethically Use Information
- 6 = Ability to Evaluate Information

Appendix xvi showed that there were sig. relationships between Library use and Ability to Define and Articulate Information ($r = .481^*$, $p(.000) < .01$), Ability to Organize Information ($r = .376^{**}$, $p(.004) < .01$), Ability to Communicate and Ethically Use Information ($r = .344^{**}$, $p(.009) < .01$) and Ability to Evaluate Information ($r = .418^{**}$, $p(.001) < .01$). However, there was no significant relationship between Library use and Ability to Locate Information ($r = .176$, $p(.195) > .05$) respectively.

APPENDIX XVII

Ho 2d: There is no significant relationship between Information Literacy Skills and Library use by Undergrads in Federal University Lafia.

PPMC Information Literacy Skills and Library Use by undergraduates in Federal University Lafia

	1	2	3	4	5	6	\bar{x}	S.D
1	1						74.11	18.72
2	-.310** (.007)	1					11.30	2.73
3	.166 (.158)	.402** (.000)	1				9.89	3.13
4	.049 (.677)	.554** (.000)	.710** (.000)	1			10.92	2.54
5	-.248* (.033)	.427** (.000)	.026 (.825)	.137 (.243)	1		11.82	2.28
6	.058 (.624)	.392** (.001)	-.066 (.578)	.087 (.462)	.482** (.000)	1	12.14	1.79

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library Use

2 = Ability to Define and Articulate Information

3 = Ability to Locate Information

4 = Ability to Organise Information

5 = Ability to Communicate and Ethically Use Information

6 = Ability to Evaluate Information

Appendix xii showed that there were significant relationships between Library use and Ability to Define and Articulate Information ($r = -.310^{**}$, $p(.007) < .01$), Ability to communicate and Ethically Use Information ($r = -.248^{*}$, $p(.033) < .05$). However, there was no significant relationship between Library use and Ability to Locate Information ($r = .166$, $p(.158) > .05$), Ability to organize information ($r = .049$, $p(.677) > .05$), Ability to Evaluate Information ($r = .058$, $p(.624) > .05$) respectively.

APPENDIX XVIII

Ho 2e: There is no sig. relationship between Information Literacy Skills and Library use by Undergraduates in University of Abuja

PPMC Information Literacy Skills and Library Use by undergraduates in Federal University of Abuja

	1	2	3	4	5	6	\bar{x}	S.D
1	1						60.73	18.94
2	.126* (.040)	1					11.42	3.13
3	.189** (.002)	.696** (.000)	1				10.92	3.30
4	.189** (.002)	.586** (.000)	.607** (.000)	1			11.20	2.79
5	.260** (.000)	.382** (.000)	.346** (.000)	.416** (.000)	1		11.59	2.65
6	.218** (.000)	.311** (.000)	.185** (.003)	.274** (.000)	.667** (.000)	1	11.63	2.84

*Sig at .05 level, **Sig. at .01 level

Key

- 1 = Library Use
- 2 = Ability to Define and Articulate Information
- 3 = Ability to Locate Information
- 4 = Ability to Organize Information
- 5 = Ability to Communicate and Ethically Use Information
- 6 = Ability to Evaluate Information

Appendix xiii showed that there were sig. relationships between Library use and Ability to Define and Articulate Information ($r = .126^*$, $p(.040) < .05$), Ability to Locate Information ($r = .189^{**}$, $p(.002) < .01$), Ability to organize information ($r = .189^{**}$, $p(.002) < .01$), Ability to communicate and Ethically Use Information ($r = .260^{**}$, $p(.000) < .01$) and Ability to Evaluate Information ($r = .218^{**}$, $p(.000) < .01$) respectively.

APPENDIX XIX

Combination of the Universities correlation matrix showing the relationship between Information Literacy Skills and Library Use by Undergraduates in North-Central Nigeria
PPMC Information Literacy skills and Library Use by undergraduates in North-Central Nigeria

	University of Jos	University of Ilorin	Federal Univ. Lokoja	Federal Univ. Lafia	University of Abuja
	Library use	Library use	Library use	Library use	Library use
Library use	1	1	1	1	1
Ability to define and articulate info.	.187* (.030)	-.153* (.032)	.481** (.000)	-.310** (.007)	.126* (.040)
Ability to locate information	.186* (.031)	.185* (.010)	.176 (.195)	.166 (.158)	.189** (.002)
Ability to organize information	.300** (.000)	.114 (.111)	.376** (.004)	.049 (.677)	.189** (.002)
Ability to communicate & ethically use info.	.153 (.077)	.056 (.438)	.344** (.009)	-.248* (.033)	.260** (.000)
Ability to evaluate information	.243** (.005)	.140* (.050)	.418** (.001)	.058 (.624)	.218** (.000)

*Sig at .05 level, **Sig. at .01 level

University of Jos: Table xix showed that there were sig. relationships between Library use and Ability to Define and Articulate Information ($r = .187^*$, $p(.030) < .05$), Ability to Locate Information ($r = .186^*$, $p(.031) < .05$), Ability to Organize Information ($r = .300^{**}$, $p(.000) < .01$), Ability to Evaluate Information ($r = .243^{**}$, $p(.005) < .05$). However, there was no significant relationship between Library use and Ability to Communicate and Ethically Use Information ($r = .153$, $p(.077) > .05$).

University of Ilorin: Table xix showed that there were sig. relationships between Library use and Ability to Define and Articulate Information ($r = -.153^*$, $p(.032) < .05$), Ability to Locate Information ($r = .185^*$, $p(.010) < .05$) and Ability to Evaluate Information ($r = .140^*$, $p(.050) < .05$). However, there was no sig. relationship between Library use and Ability to Organize Information ($r = .114$, $p(.111) > .05$) and Ability to Communicate and Ethically Use Information ($r = .056$, $p(.438) > .05$) respectively

Federal University Lokoja: xix showed that there were significant relationships between Library use and Ability to Define and Articulate Information ($r = .481^*$, $p(.000) < .01$), Ability to Organize Information ($r = .376^{**}$, $p(.004) < .01$), Ability to Communicate and Ethically Use Information ($r = .344^{**}$, $p(.009) < .01$) and Ability to Evaluate Information ($r = .418^{**}$, $p(.001) < .01$). However, there was no significant relationship between Library use and Ability to Locate Information ($r = .176$, $p(.195) > .05$) respectively

Federal University Lafia: xix showed that there were significant relationships between Library use and Ability to Define and Articulate Information ($r = -.310^{**}$, $p(.007) < .01$), Ability to communicate and Ethically Use Information ($r = -.248^*$, $p(.033) < .05$). However, there was no significant relationship between Library use and Ability to Locate Information ($r = .166$, $p(.158) > .05$), Ability to organize information ($r = .049$, $p(.677) > .05$), Ability to Evaluate Information ($r = .058$, $p(.624) > .05$) respectively.

University of Abuja: xix showed that there were significant relationships between Library use and Ability to Define and Articulate Information ($r = .126^*$, $p(.040) < .05$), Ability to Locate Information ($r = .189^{**}$, $p(.002) < .01$), Ability to organize information ($r = .189^{**}$, $p(.002) < .01$), Ability to communicate and Ethically Use Information ($r = .260^{**}$, $p(.000) < .01$) and Ability to Evaluate Information ($r = .218^{**}$, $p(.000) < .01$) respectively.

APPENDIX XX

Ho 3a: There is no sig. relationship between Library Anxiety and Library Use by undergraduates in University of Jos.

PPMCof Library Anxiety Skills and Library Use by undergraduates in University of Jos

	1	2	3	4	5	6	\bar{x}	S.D
1	1						48.74	23.09
2	.117 (.180)	1					12.98	4.13
3	.149 (.086)	.570** (.000)	1				12.90	4.02
4	.091 (.295)	.589** (.000)	.501** (.000)	1			13.34	3.71
5	.086 (.324)	.404** (.000)	.327** (.000)	.595** (.000)	1		13.78	3.84
6	.179* (.038)	.409** (.000)	.306** (.000)	.417** (.000)	.543** (.000)	1	13.22	4.18

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library Use

2 = Affective Barrier

3 = Barrier with Staff

4 = Comfort with the Library

5 = Knowledge of the Library

6 = Mechanical Barrier

Appendix xx showed that there is a sig. relationship between Library use and Mechanical barrier ($r = .179^*$, $p(.038) < .05$). However, there were no sig. relationship between Library use and Affective Barrier ($r = .117$, $p(.180) > .05$), Barrier with Staff ($r = .149$, $p(.086) > .05$) and Comfort with the Library ($r = .091$, $p(.295) > .05$) and Knowledge of the Library ($r = .086$, $p(.324) > .05$) respectively

APPENDIX XXI

Ho 3b: There is no sig. relationship between Library Anxiety and Library Use by undergraduates in University of Ilorin

PPMC Library Anxiety Skills and Library Use by undergraduates in University of Ilorin

	1	2	3	4	5	6	\bar{x}	S.D
1	1						64.11	25.28
2	.250** (.000)	1					13.08	3.62
3	.073 (.312)	.385** (.000)	1				11.47	3.11
4	.031 (.666)	.239** (.001)	.499** (.000)	1			11.52	3.10
5	-.154* (.032)	.097 (.177)	.157* (.028)	.375** (.000)	1		11.14	4.05
6	-.171* (.017)	.068 (.343)	.178* (.012)	.354** (.000)	.749** (.000)	1	10.34	4.23

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library Use

2 = Affective Barrier

3 = Barrier with Staff

4 = Comfort with the Library

5 = Knowledge of the Library

6 = Mechanical Barrier

Appendix xxi showed that there were sig. relationships between Library use and Affective Barrier ($r = .250^{**}$, $p(.000) < .01$), Knowledge of the Library ($r = -.154^*$, $p(.032) < .05$), Mechanical barrier ($r = -.171^*$, $p(.017) < .05$). However, there were no sig. relationship between Library use and Barrier with Staff ($r = .073$, $p(.312) > .05$) and Comfort with the Library ($r = .031$, $p(.666) > .05$) respectively.

APPENDIX XXII

Ho 3c: There is no sig. relationship between Library Anxiety and Library Use by undergraduates in Federal University Lokoja.

PPMC of Library Anxiety Skills and Library Use by undergraduates in Federal University Lokoja

	1	2	3	4	5	6	\bar{x}	S.D
1	1						46.80	17.15
2	.009 (.949)	1					12.11	3.63
3	-.193 (.154)	.500** (.000)	1				12.23	4.33
4	.176 (.193)	.565** (.000)	.333* (.012)	1			13.79	2.16
5	-.199 (.141)	-.018 (.898)	.002 (.986)	-.251 (.062)	1		15.79	3.05
6	-.054 (.692)	.367** (.005)	.153 (.259)	.222 (.100)	.241 (.073)	1	14.54	2.90

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library Use

2 = Affective Barrier

3 = Barrier with Staff

4 = Comfort with the Library

5 = Knowledge of the Library

6 = Mechanical Barrier

Appendix xxii showed that there were no sig. relationships between Library use and Affective Barrier ($r = .009$, $p(.949) > .05$), Barrier with Staff ($r = -.193$, $p(.154) > .05$), Comfort with the Library ($r = .176$, $p(.193) > .05$), Knowledge of the Library ($r = -.199$, $p(.141) > .05$) and Mechanical barrier ($r = -.054$, $p(.692) > .05$) respectively.

APPENDIX XXIII

Ho 3d: There is no significant relationship between Library Anxiety and Library Use by undergraduates in Federal University Lafia.

PPMC of Library Anxiety Skills and Library Use by undergraduates in Federal University Lafia

	1	2	3	4	5	6	\bar{x}	S.D
1	1						74.11	18.72
2	-.161 (.170)	1					12.69	3.19
3	-.105 (.373)	.585** (.000)	1				12.77	3.46
4	-.242* (.038)	.512** (.000)	.612** (.000)	1			12.61	3.08
5	-.471** (.000)	.434** (.000)	.585** (.000)	.494** (.000)	1		10.76	3.62
6	-.310** (.007)	.438** (.000)	.513 (.000)	.499** (.000)	.796** (.000)	1	9.26	3.60

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library Use

2 = Affective Barrier

3 = Barrier with Staff

4 = Comfort with the Library

5 = Knowledge of the Library

6 = Mechanical Barrier

Appendix xxiii showed that there were sig. relationships between Library use and Comfort with the Library ($r = -.242^*$, $p(.038) < .05$), Knowledge of the Library ($r = -.471^{**}$, $p(.000) < .01$) and Mechanical barrier ($r = -.310^{**}$, $p(.007) < .01$). However, there were nosignificant relationships between Library use and Affective Barrier ($r = -.161$, $p(.170) > .05$), Barrier with Staff ($r = -.105$, $p(.373) > .05$) respectively.

APPENDIX XXIV

Ho 3e: There is no significant relationship between Library Anxiety and Library Use by undergraduates in University of Abuja.

PPMC of Library Anxiety Skills and Library Use by undergraduates in University of Abuja

	1	2	3	4	5	6	\bar{x}	S.D
1	1						60.73	18.94
2	-.181** (.003)	1					12.71	4.02
3	-.099 (.106)	.537** (.000)	1				12.60	3.72
4	-.086 (.163)	.404** (.000)	.612** (.000)	1			12.84	3.55
5	-.081 (.187)	.298** (.000)	.344** (.000)	.569** (.000)	1		13.03	3.87
6	-.079 (.202)	.353** (.000)	.375** (.000)	.440** (.000)	.705** (.000)	1	12.42	3.82

*Sig at .05 level, **Sig. at .01 level

Key

1 = Library Use

2 = Affective Barrier

3 = Barrier with Staff

4 = Comfort with the Library

5 = Knowledge of the Library

6 = Mechanical Barrier

Appendix xxiv showed that there was a sig. relationship between Library use and Affective Barrier ($r = -.181^{**}$, $p(.003) < .01$). However, there were no significant relationships between Library use and Barrier with Staff ($r = -.099$, $p(.106) > .05$), Comfort with the Library ($r = -.086$, $p(.163) > .05$), Knowledge of the Library ($r = -.081$, $p(.187) > .05$) and Mechanical barrier ($r = -.079$, $p(.202) > .05$) respectively.

APPENDIX XXV

Combination of the Universities correlation matrix showing the relationship between Library anxiety skills and Library Use by Undergraduates in North-Central Nigeria

	University of Jos	University of Ilorin	Federal Univ. Lokoja	Federal Univ. Lafia	University of Abuja
	Library use	Library use	Library use	Library use	Library use
Library use	1	1	1	1	1
Affective barrier	.117 (.180)	.250** (.000)	.009 (.949)	-.161 (.170)	-.181** (.003)
Barrier with staff	.149 (.086)	.073 (.312)	-.193 (.154)	-.105 (.373)	-.099 (.106)
Comfort with the library	.091 (.295)	.031 (.666)	.176 (.193)	-.242* (.038)	-.086 (.163)
Knowledge of the library	.086 (.324)	-.154* (.032)	-.199 (.141)	-.471** (.000)	-.081 (.187)
Mechanical barrier	.179* (.038)	-.171* (.017)	-.054 (.692)	-.310** (.007)	-.079 (.202)

*Sig at .05 level, **Sig. at .01 level

University of Jos: Appendix xxv showed that there is a significant relationship between Library use and Mechanical barrier ($r = .179^*$, $p(.038) < .05$). However, there were no significant relationship between Library use and Affective Barrier ($r = .117$, $p(.180) > .05$), Barrier with Staff ($r = .149$, $p(.086) > .05$) and Comfort with the Library ($r = .091$, $p(.295) > .05$) and Knowledge of the Library ($r = .086$, $p(.324) > .05$) respectively.

University of Ilorin: Appendix xxv showed that there were significant relationships between Library use and Affective Barrier ($r = .250^{**}$, $p(.000) < .01$), Knowledge of the Library ($r = -.154^*$, $p(.032) < .05$), Mechanical barrier ($r = -.171^*$, $p(.017) < .05$). However, there were no significant relationship between Library use and Barrier with Staff ($r = .073$, $p(.312) > .05$) and Comfort with the Library ($r = .031$, $p(.666) > .05$) respectively

Federal University Lokoja: Appendix xxv showed that there were no significant relationships between Library use and Affective Barrier ($r = .009$, $p(.949) > .05$), Barrier with Staff ($r = -.193$,

p(.154)>.05), Comfort with the Library (r = .176, p(.193)>.05), Knowledge of the Library (r = -.199, p(.141)>.05) and Mechanical barrier (r = -.054, p(.692) >.05) respectively

Federal University Lafia: Appendix xxv showed that there were significant relationships between Library use and Comfort with the Library (r = -.242*, p(.038)<.05), Knowledge of the Library (r = -.471**, p(.000)<.01) and Mechanical barrier (r = -.310**, p(.007) <.01). However, there were no significant relationships between Library use and Affective Barrier (r = -.161, p(.170)>.05), Barrier with Staff (r = -.105, p(.373)>.05) respectively

University of Abuja: Appendix xxv showed that there was a significant relationship between Library use and Affective Barrier (r = -.181**, p(.003)<.01). However, there were no significant relationships between Library use and Barrier with Staff (r = -.099, p(.106)>.05), Comfort with the Library (r = -.086, p(.163)>.05), Knowledge of the Library (r = -.081, p(.187)>.05) and Mechanical barrier (r = -.079, p(.202) >.05) respectively.

APPENDIX XXVI

Map of North Central, Nigeria

