

**EFFECTS OF LIBRARY INSTRUCTIONS ON THE USE OF INFORMATION
RETRIEVAL TOOLS BY STUDENTS IN POLYTECHNIC LIBRARIES IN NORTH-
EASTERN STATES OF NIGERIA**

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NOVEMBER, 2018

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**A DISSERTATION SUBMITTED TO THE POSTGRADUATE SCHOOL
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REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER
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INFORMATION SCIENCE**

**FACULTY OF EDUCATION,
AHMADU BELLO UNIVERSITY,
ZARIA**

NOVEMBER, 2018

Declaration

I hereby declare that this dissertation entitled: “Effects of Library Instruction on the use of Information Retrieval Tools by Students in Polytechnic Libraries in the North-Eastern States of Nigeria” has been written by me in the Department of Library and Information Science. The Information derived from the literature has been duly acknowledged in the text and list of references provided. No part of this work has been previously presented for another higher degree to the best of my knowledge.

Sa’ad Ibrahim

Date

Certification

This dissertation titled Effects of Library Instruction on the use of Information Retrieval Tools by Students in Polytechnic Libraries in the North-Eastern States of Nigeria by Sa’ad Ibrahim, meets the regulations governing the award of the degree of Masters in Library Science of Ahmadu Bello University, Zaria and was approved for its contribution to knowledge and literary presentation.

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Dedication

This work is dedicated to the memory to my beloved father, Alh. Ibrahim Tabari, and my ever caring mother, Hajiya Aishatu Shehu.

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Praise is to Almighty Allah for His wisdom, mercy and for making this programme a success. May His blessings be upon His noble prophet Muhammad (S.A.W.).

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Abstract

Instructing library users on effective utilization of information resources and services could not be over emphasized in tertiary institutions due to increase in students' intake, complexity of library systems, and introduction of information and communication technology in library services. Academic libraries in Nigeria and in particular the Polytechnic libraries are putting much effort to simplify ease of access to retrieve their library resources through the use of catalog cards, online public access catalos OPACs, indexes and abstracts which implies that the issue of availability has been addressed. Meanwhile availability does not translate to use. Therefore, This study seek to investigates the Effects of Library Instructions on the Use of information Retrieval Tools by Students in Polytechnic Libraries in the North-Eastern States of Nigeria with specific emphasis on the type of library instruction programs, effects of library instructions on the use of Information retrieval tools, challenges militating the library instruction, type of Information retrieval tools available in the libraries, level of utilization of Information retrieval tools. Quantitative research method was adopted for the conduct of the study and cross-sectional survey design was used. Simple random sampling technique was used to select respondents to accommodate the different subjects involved in the study. A structured questionnaire was used as the instrument for data collection. The data collected for the study were analyzed using both descriptive and inferential statistics. Copies of questionnaires that were returned were analyzed using one way ANOVA. The study discovered that traditional face-to-face instructions are offered in the Polytechnics and correspondingly has significant effect on students' use of information retrieval tools and other library resources. It was equally revealed that manual retrieval tools are available in all the Polytechnic libraries while the electronic search tool is available in only one Polytechnic. Catalog card report the very frequently used retrieval tool by Polytechnic students. The study concluded that, library instruction prepares polytechnic students toward effective utilization of retrieval tools expending the strategies and techniques acquired on how to search and retrieve information materials in their libraries. So therefore, Polytechnic libraries need to reevaluate library user instruction to strengthen the use of both manual and electronic retrieval tools. It is recommended that library instructions should be incorporated into the Polytechnic curriculum to affect changes in students' library behaviour.

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List of Abbreviations

ACP- Affective, Cognitive and Psychomotor

ACRL- Association of College and Research Libraries

AMU- Aligarh Muslim University

ALA- American Library Association

ANOVA- Analysis of Variance

CA- Computer Assisted

CD-ROM- Compact Disk- Read Only Memory

IR- Information Retrieval

IRT- Information Retrieval Tool

KO- Knowledge Management

LIP- Library Orientation Component

NBTE- National Board for Technical Education

ND- National Diploma

OPAC- Online Public Access Catalogue

QEP- Quality Enhancement Program

WWW- World Wide Web

CHAPTER ONE

INTRODUCTION

1.1 Background to

the Study

Library instruction is an academic program that is designed by higher institutions to educate library users on how to effectively utilize library resources and its services (Esse, 2014). Library instruction is referred to in current literatures as bibliographic instruction, library orientation and information literacy. Association of College and Research Libraries (ACRL 2006) in their document information literacy competency standard for higher education defined Library instruction as a set of abilities requiring individuals “to recognize when information is needed and have the ability to locate, retrieve, evaluate and use effectively the needed information”. Therefore, imparting knowledge on how library users can effectively utilize the library resources is an important element in education. Similarly, seeking, retrieving, use and evaluation of information are activities engaged by students in their academic pursuit.

To avoid serendipity in sourcing information resources, students will be required to know and be conversant with the manual information retrieval tools like classification, catalogue, index, abstract, bibliographies, etc and also to develop logical, creative and critical technique to search and retrieve information. This is because these manual methods show the process of evolution of information retrieval and most importantly, recent developments in information retrieval from the internet have their roots in the manual tools and methods. In order to do this, students must be taught to be independent as they need knowledge and skills to help them. As pointed out by Edoka (2010), the objective of library instruction is to help users make best use of overall library resources and to develop skills necessary for retrieving required materials. In the same vein, Passarelli and Millicent (2006) pointed out the need for helping library users in accessing the

resources and services available in libraries. The emphasis on self-education, tutorials, seminars, projects and guided reading teaching methods placed less reliance on formal lessons and lectures. There is an implicit assumption in these educational changes that learners are capable of finding materials relevant to their need. In practice, such assumption is not valid the learner requires to be taught that skill. Only then is the student able to prepare for taking full and active part in the new ways of learning.

1.1.1 Library Instruction

Education is a lifelong process, it has no end. As far as library activities are concern, the users are novice. They need some sought of library instruction on how to use library resources and services. They require assistance and guidance (instruction, initiation, and education) about library facilities, collection and services. Library instruction, bibliographic instruction, user education, library orientation, reader instruction, information literacy are terms used to imply in the field of librarianship to describe educating library users in the independent use of library resources effectively and efficiently (Bhatti 2013).

In the 21st century, Library professionals have created different definitional structures for the concept of library instruction. Salony (1995) considers library instruction as the systematic nature of the efforts to teach something- a set of principles or search strategies relating to library, its collections or services using the pre-determined methods in order to accomplish a pre-defined set of objectives. Klab (2010) maintains that library instruction program is organized in order to inculcatein users library use skills such as bibliographic instruction and information literacy skills. Oji (2009) in Morris (1990) maintains that user education is instruction given to users to help them make the best use of the library. Library instruction has also transformed and expanded to includeinformation literacy and learning for life. It reduces the library staff's time

and efforts in solving individual problems regarding the use of library services and also prepares users to exploit information effectively in any circumstances. Ilo & Jerome (2011) portrays two types of library user's education: library orientation and bibliographic instruction. Library orientation is mainly concerned with introducing the users to the library generally and the services available. This may include the organization of the library and the general principles governing the use of the library. On the other hand, bibliographic instruction is concerned with introducing the users to the sources of information and the best ways to use them.

1.1.2 Need for Library Instruction Programs

Library instruction is an important platform through which information literacy is achieved. The literature (Koenig, 2003; Nicholas, 2003) demonstrates that many students in higher educational institutions need library instruction programs because courses of study are becoming interdisciplinary and their pattern is changing. It makes imperative for students to become better library literate so that they can make the optimum use of the available sources of information. Kumar (2009) opined that rapid change in teaching methods and the resulting trend towards wider use of multi-media learning resources ranging from the press cutting to slide tapes package and multiple kit. Such format has added new dimensions to the learning process in all types of institutions. He emphasize the need for comprehensive program that aim to teach the concepts, skills and techniques of searching.

Orientation sessions, handouts, workshops, course related and course integrated instruction are the activities aimed to achieve the goals of user education. The term bibliographic instruction has more recently broadened to include the concept of information literacy. Library instructions support the concept of educating for a lifetime (life-long learning). The think Tank II report on bibliographic instruction (Tiefel, 1995) defined information literacy as encompassing the entire

world of information and information seeking to prepare people to pursue the concept of lifelong learning. Information literacy extends its objectives to teaching information-seeking skills to all ages at all times.

The user library instruction experts recommended strongly that educating users must be compulsory for all, because library instruction helps developing information seeking and critical skills independently (Bhatti 2008). He further emphasized that as a lot of latest information is accessible via internet. The information explosion has accelerated the need for development of such expert system.

1.1.3 Library Instruction Programs in Polytechnic Libraries

Libraries in institutions of higher education other than the university comprises of all the libraries of the various colleges of science and technology, polytechnics and advance teachers colleges or colleges of education. Library is one of the chief instruments in institution of higher learning established for achieving the laudable objectives of seeking, teaching, and preserving the fact through its basic function of collecting and preserving learning resources in its varied form (Ilo& Jerome 2011). It also provides facilities and guidance for the effective exploitation and use of these materials, both in printed form as in books and journals or non-book form such as audio-visual aids, for study and research by the members of the institution. These institutions of higher education are involved in broad-based programs of courses that inevitably lead to different depths of study. Polytechnic libraries acquire, and processes information sources in various areas of knowledge. Students who secure admission into polytechnics come from various secondary schools some of which have no libraries. In respect of this, the libraries and the institutions incorporate various programs which properly position its fresh students to explore the library's avalanche of resources without stress. Such include teaching of use of library and study

skills, library orientation, bibliographic instruction, and individualized instruction. Other methods of library instruction in Nigerian polytechnics include one- to- one session, library orientation/tours, tutorials, staff guidance, library handbook, classroom instructions (Aina 2004). He further stressed that in one- to- one session, the reference librarian take a new user round the various sections of the library. The reference librarian explains to the user the activities of the different sections without distracting the staff in the sections. The user is also enlightened on the basic services of the library and on how to search for materials. Ogunmodede&Emeahara (2010) in citing Akande (2002) reported that library orientation involves taking fresh students on a guided tour of the library, they cited the case of University of Ibadan and stressed that the program features events like talk, exhibition, demonstration, guided tour and so on.

This formal library instruction has superseded the old type of spoon feeding students. Consequently, students are more than ever before directed to apply library resources in consolidating their lecture notes, and prepare their projects or research work. This important responsibility which is placed on academic libraries has made it imperative for libraries to become integral part of the teaching process as they (libraries) cannot afford to exist in isolation. They are required to be represented, especially in curriculum development of their parent institutions so that they can make the desired impact and thereby meet their educational objectives. They can accomplish these by concentrating on two main targets: the provision of good services to meet all the information needs of the institution of which they form a part and its educational goals, and ensure that staff and students can exploit efficiently and fruitfully the whole range of library resources. It is in this respect that library instruction is considered important and crucial strategy.

Libraries of various Polytechnics perform similar, unique and indispensable function in the educational process of their respective parent institutions because they bear the central responsibility for developing a well-balanced collection in the light of the curriculum in order to meet the information needs of the students and support research, maintain bibliographic control over these collection and organize both formal and informal courses of instruction for the library users in the form of orientation courses as well as literature and bibliographic instruction. A well-structured library instruction program is required for the training of the members of the college community in the various methods of identifying and using information resources, particularly the library collection.

It is generally accepted that the importance of science and technology in the development of a nation need not to be over-emphasized. All over the world the impact of the application of modern science and technology is very in evidence. Advancement in science and technology determines the level of economic, social, political and military status of nations. It was for these significant benefits of science and technology that various governments in the country support the establishment of the polytechnics and colleges of technology among which the polytechnics under study occupies a premier position.

The libraries as an integral part of these institutions are considered crucial to the attainment of the aims and objectives of these institutions. This is because its services touch the academic and professional aspirations of students and staff at every point. It is in this light that the National Policy on Education considers the academic library as one of the most important supporting services to education at all levels.

1.1.4 Information Retrieval

Owing to information explosion and the emergence of new technologies, information needed by students is now found in different formats in polytechnics, colleges, universities, technology centers and computer laboratories. These technologies have an alternative to facilitate access to scholarly information for teaching and learning. Students' information needs for research are met without difficulties. They collect current information for research from primary, secondary and tertiary sources. These information sources are no longer only in print, but in electronic forms. They can now be retrieved from different types of sources such as CD-ROMs, internet, OPACs, electronic books and electronic journals by using appropriate search strategies such as Boolean operators i.e. OR, AND, NOT, truncation, proximity features and search engines like Yahoo, Google, Excite and Alta vista.

Information retrieval (IR) is concerned with the exploitation and extraction of information and other contents of documents from different information sources (Ajiboye, 2013). Hersh(2003) echoed IR as the field concerned with the acquisition, organization, and searching of knowledge-based information. The term IR was introduced by Calvin Mooers (1919-1994), who define it in this way: Information retrieval is the name for the process or method whereby a prospective user of information is able to convert his needs for information into an actual list of citations to documents in storage containing information useful to him. It is the finding or discovery process with respect to stored information. It is another, more general name for the production of a demand bibliography. Information retrieval embraces the intellectual aspects of the description of information and its specification for search, and also whatever systems, techniques, or machines that are employed to carry out the operation. Information retrieval is crucial to documentation and organization of knowledge (Mooers, 1951).

A more recent definition of IR is that a broad area of computer science which focused primarily on providing the users with easy access to information of their interest, as follows: information retrieval deals with the presentation, storage, organization of, and access to information items such as documents, web-pages, online catalogs, structured and semi-structured records, multimedia objects. The presentation and organization of the information should be such that will provide the users with easy access to information of their interest. (Baeza-Yates & Ribeiro-Neto, 2011). It is clear from the definitions above moers considered Knowledge Organization (KO) to be part of information retrieval: it include the “description of information,” “specification of information for search,” and is crucial to organization of knowledge. Mooers found that IR covers both manual and automatic retrieval, while Baeza-Yates and Ribeiro-Neto limited it to automatic approaches.

In another dimension, Garg& Sharma (2012) believes that Information Retrieval on the Web has always been different and difficult task as compared with a classical information retrieval system (Library System). To explain the difference between classical information retrieval and information retrieval on the Web, they compare the two and the differences can be partitioned into two parts, namely differences in the documents and differences in the users. They discuss the differences in the documents as.

- **Hypertext:** Documents present on the web are different from general text-only documents because of the presence of hyperlinks. It is estimated that there are roughly 10 hyperlinks present per document.
- **Heterogeneity of document:** The contents present on a web page are heterogeneous in nature i.e., in addition to text they might contain other multimedia contents like audio, video and images.

- **Duplication:** On the Web, over 20% of the documents present are either near or exact duplicates of other documents and this estimation has not included the semantic duplicates yet.
- **Number of documents:** The size of Web has grown exponentially over the past few years. The collection of documents is over trillions and this collection is much larger than any collection of documents processed by an information retrieval system. According to estimation, Web currently grows by 10% per month.
- **Lack of stability:** Web pages lack stability in the sense that the contents of Web pages are modified frequently. Moreover any person using internet can create a Web pages even if it contains authentic information or not.

However, users on the Web behave differently than the users of the classical information retrieval systems. The users of the latter are mostly trained librarians whereas the range of Web users varies from a layman to a technically sound person. Typical user behavior shows:

- **Poor queries:** Most of the queries submitted by users are usually short and lack useful keywords that may help in the retrieval of relevant information.
- **Reaction to results:** Usually users don't evaluate all the result screens, they restrict to only results displayed in the first result screen.
- **Heterogeneity of users:** There is a wide variance in education and Web experience between Web users.

Thus, the main challenge of information retrieval on the Web is how to meet the user needs given the heterogeneity of the Web pages and the poorly made queries.

1.2 Statement of the Problem

The orientation of students in the use of library in Nigerian institutions has become a tradition due to increase in students' intake, complexity of library systems and introduction of information and communication technologies in library services. Also increase in acquisition of library resources and complexity in their organization for easy retrieval, calls for educating users with skills to use libraries (Ishola 2012). The aim of library instruction is to acquaint freshmen on the existence of the library and its organization, layout and services available at hand. The benefits include: increased usage, increased awareness and educating freshmen on the use of library resources and services among others. Without doubt, libraries have numerous instruction programs such as user orientation, use of library course, staff guidance, tutorials, library tour etc. which are organized to attract users patronize the abundant information resources carefully organized in the library. Among the essence of these instruction is to educate students how to search documents with retrieval tools such as catalogs, abstracts, indexes, bibliographies and search engines which can be used to effectively locate and retrieve document in the library.

Integration of library instruction into school curriculum will improve students' strategies and techniques to search and retrieve information resources with retrieval tools from the library at all levels and in all curriculum content areas (Kamba 2009). American Library Association is encouraging the need for incorporation of information searching skills, concepts and theories into the curriculum to prepare students for a lifetime information seeking and use (ACRL 2006). The phenomenon has an effect on students' academic performance and lifelong learning. In spite of the formal traditional face-to-face instruction programs offered in Nigerian polytechnics on library use, yet retrieval tools are dramatically underutilized by students, which in turn leads to underutilization of library resources and poor academic performance (Esse 2014).

Preliminary investigation was carried out by the researcher to ascertain the students' skills on use of retrieval tools after completing the formal instruction program. The study shows that the students exhibit little competency on how to make use of retrieval tools to search and locate documents from their library collections, either because they were not been effectively instructed or library staff are not assisting them to use the tools. Ajiboye (2013) observed insufficient orientation of students on the use of search tools in Nigerian institutions deprive student from making use of information resources for their academic activities. To buttress this assertion, Oyedipe (2013) reported that majority of students acquire skills of using retrieval tools from library instruction and information literacy programs. Previous investigations on library instruction were mainly focused on students' performance and library services while information retrieval techniques have been neglected in some ways. It's on these basis these research was conceived to assess the impact of Library Instruction on Students' Use of Retrieval Tools in their quest for access and retrieval of library resources in polytechnic libraries in the North-eastern States of Nigeria.

1.3 Research Questions

In this study, answers were provided to the following research questions:

1. What type of Library Instruction programs offered to students in polytechnic libraries in the North-eastern States of Nigeria?
2. What are the effects of Library Instructions on the use of Retrieval Tools by Polytechnic students in the North-eastern States of Nigeria?
3. What are the challenges of Library Instruction programs in polytechnic libraries of the North-eastern States of Nigeria?

4. What type of Retrieval Tools are available for students in polytechnic libraries of the North-eastern States of Nigeria?
5. What is the level of utilization of Retrieval Tools by students in the Polytechnic libraries of the North-eastern States of Nigeria?

1.4 Research Hypotheses

In this study, two Null hypotheses were tested:

H₀₁ There is no significant difference on the type of Retrieval Tools available for students in polytechnic libraries of the North-eastern States of Nigeria.

H₀₂ There is no significant difference on the use of Retrieval Tools demonstrated by students after completing the instruction programs in polytechnic libraries in the North-eastern States of Nigeria.

1.5 Objectives of the Study

The study has following objectives:

1. To identify the types of Library Instruction programs offered to the students in the polytechnic libraries of the North-eastern States of Nigeria
2. To determine the effects of Library Instruction on the use of Retrieval Tools by Polytechnic students in the North-eastern States of Nigeria
3. To find out the challenges of Library Instruction program in polytechnic libraries in the North-eastern States of Nigeria
4. To identify the types of Retrieval Tools available for students in polytechnic libraries in the North-eastern States of Nigeria

5. To find out the level of utilization of Retrieval Tools by students in the polytechnic libraries in the North-eastern States of Nigeria

1.6 Significance of the Study

The significance of this study therefore, lies in the fact that the findings of the study would assist in planning and decision making by polytechnic librarians and administrators. Polytechnic librarians and library instructors would determine the strength and weaknesses of library instructions to the students. It is hoped that library instruction will be repositioned to place teaching students how to utilize retrieval tools in the library to easily retrieve information from the library stalk. The study will add to the literature on library instruction as an educational document for users as well as polytechnic management by making the research findings potentially useful as well as accessible by its intended audience.

Finally, the findings and recommendations of this study will contribute to the depth of literature in the relevance of library instruction to the utilization of retrieval tools in libraries.

1.7 Scope of the Study

The study was centered on the Effects of Library Instructions on National Diploma (ND) students' use of Retrieval Tools in Polytechnics of all the six states of North-eastern states of Nigeria (viz Bauchi, Gombe, Yobe, Adamawa, Borno and Taraba States). The libraries have various instruction programs such as user orientation, library tour and staff guidance that are offered to students and also retrieval tools such as catalogs, indexes and abstracts are also provided for their usage. This instruction programs mode delivery need to be standardize at all levels to prepare freshmen towards effective utilization of library resources and services.

1.8 Operational Definition of Terms

The following terms are defined within the context of the study for more elaborate understanding.

Assessment: variety of methods or tools that the researcher use to evaluate, measure and document the academic readiness, learning progress, skills acquired by students from the instruction programs.

Library instruction: educating the library users-newly joined student, faculty, and research scholar on how effectively and efficiently use the library resources and services.

Retrieval tools: any device used in identifying and extracting information material from library collection.

Use: act of using a device or tool to retrieve document from the library collection in different curriculum content areas by students

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CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

The literature review is aimed at examining earlier works or investigations carried out by researchers in areas related to the study. This review focuses mainly on the effect of library instructions on students' use of retrieval tools in Polytechnic libraries. The chapter will be subdivided into the following topics:

- Theoretical framework
- Relationship of the Theory to the Study
- Library Instruction Programs
- Effects of Library Instruction on the Use of Retrieval tools
- Challenges of Library Instruction
- Evaluation of Library Instruction Programs
- Methods and Measures of Assessing the Effects of Library Instruction
- Information Retrieval Tools Available in Libraries
- Uses of Information Retrieval Tools in Academic Libraries
- Summary of the Review

2.2 Theoretical Framework

Theories are used as conceptual classification in the conduct of a research that ought to be carried out as a guide to a subject practice. This is to help a researcher to design questions to apply for an investigation that is suitable for the study. Jakobovits&Nahl-Jakobovits (1987) theory of library instruction learning behavior provides framework and the lens from which to explore the effect of library instruction on Polytechnic students' use of retrieval tools after completing the instructional programs. According to the theory, user behavior is explained under affective, cognitive and psychomotor learning domains with demonstrated behaviors within the three levels of identified library learning; specifically the orientation level, the interaction level, and the internalization level.

The Jakobovits&Nahl-Jakobovits theory of library instruction learning behavior seems appropriate for this study because the theory defined a systematic classification system or taxonomy of user behaviors within the learning domains and the three levels of identified library learning. The researcher will adopt the ACP learning domains within two levels of library learning orientation and interaction level to examine the effect of the instruction on users and to highlights the relationship between the domains and the levels through demonstrated outcomes expected from the Polytechnic students. Thus, the theory highlighted the relationship between the domains and the levels along with demonstrated outcomes which were presented graphically in a matrix that was intended to theoretically demonstrate the identity and relationships of the behaviors proposed by the authors. The purpose of the matrix was to provide the library profession a means for standardizing effective library instruction. Jakobovits&Nahl-Jakobovits noted that the advantage of utilizing the taxonomy to emphasize their theory would promote a scientific discipline and stimulate research and study into the library instruction field. The taxonomy incorporated leadingto instructional theory “following the work of Benjamin Bloom

and associates in educational objectives,” (Jakobovits&Nahl-Jakobovits, 1990). Jakobovits&Nahl-Jakobovits incorporated learning theory into taxonomy and discussed learning motivators that libraries intuitively incorporate and respond to as they provide instruction to and ensure the success of students. Being cognizant of the taxonomy may relieve areas of what the authors refers to as student helplessness. This may include; pessimistic feelings such as the information resources not being useful, “library abulia. To overcome those possible negatives, library instruction must be a positive experience that ultimately allows the student to feel motivated to pursue information related activities and thus feel rewarded by success thus creating incentive for continued searching experiences.

The authors updated the theory in a later publication to incorporate information literacy into the taxonomy using a systems approach to library instruction (Nahl-Jokobovits&Jokobovits, 1993). The systems approach allows all aspects of instruction to be viewed including the content of instruction along with the needs of the student and a process of accountability to ensure an effective program. A basic instructional design model that includes the following steps; conducting a needs analysis, determining goals and objectives, developing presentation methods, creating a means for evaluation of learning, pilot testing, gathering data on strengths and weaknesses on the instruction, altering the instruction based on data gathered, and looping back to the first step, allows a thorough process for developing a library instruction program. The matrix representing the taxonomy was also updated and describes the same ACP behavioral objectives as noted in 1987 publication. The affective, cognitive, and psychomotor objectives must be considered as dependent on one another for learning to be successful. In order to accomplish an objective (cognitive), the student must be motivated to seek the accomplishment and must see the value of it (affective), and must be physically able to perform the steps involved

to complete the objective (psychomotor). The information literacy matrix organizes the objectives within the three levels of the original matrix; orientation, interaction and internalization level.

2.2.1 The Relationship of the Theory of Library Instruction to the Study

The relationship between the theory of library instruction learning behavior and assessment of the effect of library instruction on the use of retrieval tools by students stems from the fact that library instruction enhances techniques on information search and retrieval skills and awareness with other library services. The theory holds the belief that library instructions have a role to play in facilitating ease of access and information search strategy among library users. According to Lau (2006), library instruction programs are seen as agents of change in students' cognitive skills, values and knowledge for lifelong learning. Thus, the theory says that library instruction should be given to the freshmen in order to encourage them utilize the library resources and feel motivated to pursue information related activities and thus feel rewarded by success, and at the same time creating encouragement for continued searching experiences.

Theory of library instruction, according to Gustavsson (2015) "recommends educating students with skills to navigate databases, physical collections and learning to use the many different tools available in such resources which can be complicated and confusing for students without some sort of guidance". In addition, the theory advocates that academic libraries should offer courses in information seeking and retrieval either in general or as part of the specific programs students are studying. Buck & Mellinger, (2011) gives a clear focus on the need to conduct instructional programs to the freshmen in order to create changes in their thoughts, feelings, and actions at each stage of library usage.

2.3 Library Instruction Programs

Library instruction is concerned with enabling students to become aware of the existence of the library and its organization, layout and services available at hand. The need for information search and retrieval skills, problem-solving, life-long learning among users is some of the reasons which make library instruction mandatory for the freshmen in Polytechnics and other institutions of higher learning. Many writers have examined library instruction program in some higher institutions in Nigeria in the relevance of the program to effective utilization of library resources and also, on how to improve on some problems relating to the dissemination of the course. Aina (2004) is of the view that, library instruction is information literacy service with the emphasis of educating users on how to acquire skills that will enable them search for information independently on any aspect of knowledge by using traditional and electronic methods. Livehabura (1999) is of the opinion that library instruction should be integrated within the curriculum of the institution so that the contents and coverage of the program accommodates information development, learning, teaching and research within and outside the institution. This instruction programs enhances utilization of resources in the library which in turn improve academic performance of students.

Traditional face-to-face library instruction programs are numerous in Nigerian Polytechnics as quoted by (Esse 2013) where she reveals some of the methods of educating library users ranging from orientation, use of library course, staff guidance, tutorials, library tour etc. Kantharaj (2014) enumerates other methods of library instruction programs which include; lecture method, presentation method, and documentary on library, tutorials, guided tour, attending individuals at the help desk, virtual tour, and brochures/flyers. These orientation

programs aid library users to acquire skills on how to effectively utilize the library. This is in line with what Ojasaar (2003) said in his study, that user education is an instruction which equips library users with the skills to enable them to be independent and sophisticated users of libraries and their resources especially in the areas of identification, location, search, retrieval and exploitation of information. He recommends that effort has to be made in the area of staff guidance and tutorials. One of the basic functions of the academic library is to offer both formal and informal instruction in the use of library. Tiafel (2008) noted that libraries have to develop expanded programs to meet the changing needs of library users and prominent among these is the library user education program.

Bhatti (2012) reported on the Library Instruction Program of the Philip Weitner library which serves as one means of providing an information literacy experience designed to build expertise in mining the wealth of resources available to members of the 21st century college campus. The library instruction program is composed of three components: the Library Orientation Program with the emphasis of acquainting student on library services, introducing them to the physical layout of the building, functions of the library website, catalog searching, database searching and academic integrity. He further reveals on the continuing instruction program which offers a series of classes designed to meet both the basic needs for mining the online resources and customized classes for course specific research these includes; effective and efficient internet searching, advanced JSTOR, advanced academic search premier, citation styles, galileo's quick search. The Web-based Learning Program includes a robust design of services available through the Library Homepage. Tutorials and online information create a variety of research related information opportunities, including "ask a librarian," time management skills, and a plagiarism tutorial. However, PowerPoint presentations and handout from the various continuing instruction

classes are available on the library page as well. The Library Orientation component of LIP correlates directly to the campus wide Quality Enhancement Program (QEP), which was developed in 2005-2006. The QEP provides a framework in which to make the first year student experience successful. The Library Orientation Program is designed to meet three specific goals centered on the campus QEP: provide and support specific instruction for the First Year Experience, provide a formal library orientation program for incoming students, and provide a variety of ongoing instruction sessions.

2.3.1 Objectives of Library Instruction

Many authorities in educational psychology accept that an objective is a statement describing the expected effects upon a learner, with regards to what the learner is to be like when he has successfully completed the learning experience. Therefore, the student for whom library instruction is planned certainly is one of the basic considerations affecting the types of objectives and programs to be mounted.

Most literatures consulted on the objectives of library instruction are unanimous in their agreement that objectives for the design of educational system should preferably be formulated in terms of the desired terminal behavior of the recipient. Hence the foundation of the instructional objective(s) in a Polytechnic library, for instance, should be: to qualify participants to make efficient use of the existing scientific and technical information resources in the library. Consequently by operationalizing these objectives a number of sub-goals related to the participant's expected performance can be set. Olaniyan (2012) enumerated the goals and objectives of library instruction in tertiary institutions, that:

- To acquaint students with the most useful reference work, books and periodicals in their field of study.
- To be familiar with and able to use methods and techniques for information retrieval offered by libraries and information centers, for example, abstracts, indexes, catalogues etc.
- To teach them the proper form and rules for making a scientific bibliography.
- To teach them how to prepare a scientific or technical report.
- To have a general knowledge of existing channels of scientific and technical communications and their importance.
- To be able to make efficient use of the collection held by the Polytechnic library etc.

In a similar study, Edoaka (2010), portrays the objectives of library instruction is to develop in readers awareness of the overall information resources available to them, information literacy skills for retrieving materials and to put in place strategies for enhancing information search in order to stimulate the user to make adequate use of resources available in the library not minding the challenges that may be encountered. The whole essence of library instruction is to connect students to the vast array of information resources and programs using the academic library as a gateway (Zaki, 2011). This will enable students to acquire library skills necessary for academic pursuit, other life-long opportunities and problem-solving. Basically, the objective of library instruction is not to teach library science as an end in itself but to give the students tools to handle their own information needs with little or no assistance and to develop their ability to master the literature of their own field of interest.

It is generally accepted that any library instruction program must be conceived as part of the entire educational system of the institution. Such planning and coordination of efforts is

indispensable to effective implementation of user education program in any institution. Bhatti, (2007) have suggested that the program should consist of lectures, demonstration, laboratory work, and practical exercise. For success and effectiveness it has been suggested that beneficiaries of user education program should be grouped or categorized on the common grounds of interest and level of education in order to enhance an effective management and control of the program.

2.4 Effects of Library Instructions on the Use of Retrieval Tools

The taxonomy of library learning was introduced into this study by the researcher to report the effects of library instruction on the use of retrieval tools by students within the three domains of library activity: affective, cognitive and psychomotor domains in relation to three levels of learning: orientation, interaction and internalization. This taxonomy was propounded by Jakobovits&Nahl-Jakobovits (1987). Subsequent revisions of the taxonomy, along with additional studies and abundant publications from these two authors, provide the library profession with a practical theory that can be utilized to review and measure library instruction programs (Nahl-Jakobovits&Jakovovits, 1990, 1992, and 1993). This research was conceived to determine whether the library instruction is altering the students' skills on the utilization of information retrieval tools for their information search and retrieval in their libraries. This is because there cannot be a connection between the users and the materials or tools without proper education been given to the user who may not have any prior knowledge or idea on the use of such materials or tools. It will be wise enough for the librarians to see every library user as a novice, and therefore provide a procedural way of educating or orienting them. Cram (2014) said that a librarian should be more than a keeper of books; he should be an educator... No such librarian is fit for his place unless he holds himself responsible for the library education of his

students... All that is taught in college amounts to very little; but if we can send students out self-reliant in their investigations, we have accomplished very much.

Bradford (2013) opines that acquisition of library skills is expected to affect behavioral changes in attitude to learning and to inculcate in the individuals spirit of enquiry and the habit of seeking knowledge and their ability to search and retrieve information with retrieval tools. She concluded that such skills are required for lifelong learning. In order to utilize available resources in the library; a user must be able to go about his/her search without difficulty. Users ought to have adequate knowledge or receive assistance from information professionals to enhance their search. However, the use of search tools enhances search and helps user to quickly locate particular information, because educating users on the use of search tools such as catalogues, online databases, among others can also help to reduce workload done by librarians in assisting users to locate materials.

Also, Braimoh, Jegede, & Chadzinwa, (2014) reported on the effect of library instruction and also highlight some of the consequences faced by students to use the library which include among other things, a serious debasement of quality of education, which may consequently have a negative effect on the job performance of the polytechnic products. A great deal of effort is being made to assist fresh students into the tertiary institutions in the use of library search tools. The attempt which include introduction of user education is to build good library culture into the students, right from the foundation of their higher education (Akande, 2013). There is also need to define the pattern of use of the library and its materials as demonstrated by polytechnic students especially the freshmen will be very significant because it would tell the librarians a lot about how students view the library. Academic library use studies have evolved over the years

and various user researches have probed user attitudes as well as the characteristics of use, reasons for library visits, and factors related to the use of different types of library materials.

Lwehabura,(1999) remarks that few people ever use libraries search tools willingly. He further revealed that most students have to be persuaded or prodded into it. In a related study, Stamatoplos&Mackoy (2008) remarks that students' confidence level increased with increased exposure to the library and its services. However, students tend to believed that library instruction was the primary influence in their development of library use and search skills.

2.5 Challenges of Library Instruction Programs

Libraries in tertiary institutions are meant to provide user-centered services to meet students' needs. This function is performed through library user education which is expected to connect students to the vast array of information resources necessary for their problem-solving, academic pursuit and life-long learning. Educating freshmen on the use of library resources and services available in Nigerian Polytechnic libraries faced with some problems. Osagie (2013) opines that a library is one of the most important educational establishment in improving the quality of teaching and learning and most be properly stocked and compliment other educational activities in the Polytechnics. Consequently, these instruction programs are faced with some problems as identified by (Joseph, 2005) which include: Over dependence on one day orientation program, Lack of collective curriculum for library instruction in Nigerian tertiaryinstitutions, Lack of examinable library instruction, Over concentration (on the part of Librarian) on library technical serviceslike acquisition, cataloguing and classification and shelving of books ratherthan information retrieval mechanism, and the use of unqualified personnel to teach the use of library in someinstitutions. Similarly, Nkechi (2015) Identify the following as other constraints that may impede the acquisition of library user skills in Polytechnics. These include: lack of well-

equipped Polytechnic libraries, lack of confidence in the use of libraries, dependence of students on lecture notes and textbooks for everything, lack of information resources for learning, teachers mode of instruction not adequate, lack of funds for library user programs implementation, library staff not properly equipped to attend to students, constant power outage, no period in the time table for the teaching of use library, poor learning environments, lack of administrative support. For Nithyanandam (2013) lack of skills regarding search, retrieval, utilization of information; lack of training of lecturers in the use of library resources; insufficient systems and skills to manipulate technological resources in the library by students seriously impede the acquisition of library user skills by students.

Other factors that militate against the conduct of library instruction programs in Nigerian tertiary institutions include lack of resources; language barrier, illiteracy, teaching orientation and practice are part of the factors (Rockman 2002). For Ani&Bassey (2015) lack of appreciation and ignorance shown by the teaching staff is also responsible for this malaise. A major obstacle to library instruction programs is that some librarians consider it as a distraction from the main library role of delivery of information. In the view of Case (2012) library instruction program would increase the need for space, materials and public services personnel. This will drain funds for other more important services such as reference etc and it will also create personnel problems relating to scheduling, competence and assessment of teaching.

In furtherance of the mounting problems, Naser (2004) identified the following factors to include: insufficient funds, insufficient number of computers, lack of computer appreciation amongst librarians, lecturers and students, absence of properly developed curricula, lack of infrastructure generally and lack of enabling policy environments. This justifies what Fleming (2006) said that the greatest problem of library instruction in the south-east Nigeria and perhaps

other areas of the world is facing is in the aspect of acquiring, processing and disseminating information resources in a manner that is accessible to library users. She looked at user values, user loyalty and user satisfaction. User value include user intellectual accessibility in understanding printed materials, language differences, knowledge operation in the use of non-print collections, breakthrough in technical hold-ups and the human factor. The library user shows loyalty to collections when resource materials are easily located or accessed. Satisfaction can also be measured in terms of users' reaction to staff, the library setting and the need to expand their intellectual accessibility to benefit from these collections. Among these challenges as described by Lamptey (2010) are financial pressures, increasing public insecurity, accountability, rapidly evolving technologies, changing staff role, diverse staff and students demographics and competing values in a rapidly changing world. These problems face Polytechnic libraries which in turn invariably affect collection accessibility and students satisfaction.

It was equally shown by Ogunmunde (2010) that most members of staff in Polytechnics rarely use the library for their academic activities and this explains why there is a lukewarm attitude from the students too. In the view of Busawayo (2003) lack of personnel and professional time for teaching are two major problems facing library user education. Luwehabura (2009) also identified the following factors as some of the problems facing library user education in Nigerian institutions: over dependence on one day tour or orientation and lack of standard curriculum for user education course to be taught in the institutions. Edem&Lawal (1996) spot lack of professionals, time for teaching and practical work as major problems of library instruction program in Nigerian University Libraries. In contrast, Idowu (2008) argues that four

main areas affecting the program that need to be re-appraised are: Timing of the program delivery, Quality of course delivery, Funding of the program, Lack of continuity and follow-up.

To solve these problems, Klaib (2011) asserts on the need for explicit statement of objectives, availability of infrastructure, qualified trainers, careful choice of teaching methods and regular systematic evaluation. In a similar study, Akinbola (2007) assess the significance of library instruction program where he recommends that: the library instruction program in our tertiary institutions should be overhauled to make it more standard. Adequate and qualified personnel should be recruited to undertake the teaching of the course effectively; the course should be allocated reasonable time on the time table so as to enable practical aspect taught effectively.

2.6 Evaluation of Library Instruction Program

One theme that is notably lacking in most discussion dealing with library instruction is evaluation. This is one area in which librarians in general appear to be very ill at ease and it is an area that needs much work. Observations have proved that most discussions on user education centers around listing, describing and differentiating of the various types of user education. Adequate attention has not been given to several purposes for which evaluation might be carried out and problems which are associated with getting significant evaluation.

In view of all the complex factors involved in evaluating, it is difficult to objectively measure the effect of library instruction on the users. But if some methods of evaluating the benefits gained from library instruction could be devised, this might produce a justification for library instruction based on more objective criteria than those that are available at present. Schilling & Applegate (2012) identified 33 peer-reviewed articles about information searching skills instruction in tertiary institutions which were published in 2010. They discover (18) out of the 33

did not involve training evaluation with 14 articles included at least one form of training evaluation, with self-reported attitude surveys being the most frequently used method for evaluating training (reported in 9 articles). Librarians reported using citation pattern analysis, narrative reflection, and focus groups to evaluate library-based training. 'Authentic evaluation' activities such as knowledge tests or graded, course-related activities were also implemented in five instances. Among these publications was a study that reported on process implementation evaluation, the process of surveying faculty feedback on training successes versus how well students learned the required materials. In a similar study, Fafeita (2006) surveyed Australian vocational libraries, he found that majority of the teaching librarians used collaborative learning exercise as frequently used assessment methods followed by short answer quizzes, peer and self-evaluation, quizzes, multiple choice questions, essays, diary or journal of search process, and portfolios. He recommended that there is need to decide who is going to receive that kind of instruction and who is going to give it. To him, objective must be established and a decision should be made on what to be accomplished and how. He also suggested the need to build an evaluation procedure into the program so that it can be easily determined whether or not the objectives are being met.

Kirt (1975) in Mittermeyer (2011) identified two methods of evaluation which he termed formal and informal. The informal methods include a number of subjective measures which the librarian can use to assess students' progress within a particular library instruction activity. He criticized this method on the ground that it is lacking in precision. On other hand, formal evaluation consists of structural and systematic mechanism for collecting information about the impact of an instructional program. The reasons for such method of evaluation are many: to compare one's program with another, to measure the success of a program or to demonstrate the educational value of a program.

Evaluation of library instruction may focus on several different aspects which include content, product, process, attitude and cost effectiveness. An important aspect of instruction is that objectives should be articulated in terms of the behavior which one expects from students as a result of their participation in the instructional program. An evaluation of the program should then measure the extent to which the students' behavior is like the behavior the program is out to produce. Ren (2010) have argued that a systematic evaluation of the process of library user education program as well as on their output or product should be part of every library's orientation and instruction work. Paradoxically these views challenge and contradict the basic proposition that libraries should sustain a lifelong education and to which the best approach is not only to acquire educational material but to educate library users in the best way to maximize their benefits from library usage. Any good library must from time to time measure the effectiveness of its services.

An evaluation is therefore, involves a study of the library's facilities and operation and a consideration of its success in fulfilling its set aims and objectives. The main purpose of evaluation is to undertake a critical analysis of any particular library services or program or all of the services and operation to enable the librarians make specific recommendations as deem appropriate. Gandhi (2003) remarks that academic librarians must collaborate with the distance learning instructors to integrate traditional library skills tutorials so that an assessment of the students' products reflecting the utilization of the learned skills could occur.

Finally, it is pertinent to point out that most authorities consulted on user education, even though varied in their recommended approaches, are nevertheless unanimously convinced that user education program is an essential function which an academic library should perform. It is hoped that if vigorously pursued with an earnest sense of dedication, library instructional

program would serve as a catalyst for stimulating efficient and maximum utilization of library resources hence the crucial need for an evaluative study of the existing program with an objective view of improving on its effectiveness and impact.

2.7 Methods and Measures of Assessing the Effects of Library Instruction

The study reflected publications on the assessment of students for varying aspects of the information literacy competencies. A representative sample of the variety of evaluative publications is included. Barclay (2013) noted that assessment can provide both hard data, such as that derived from valid testing and usage statistics, and soft data, such as anecdotal and survey data. Combining these methods would overcome validity and bias issues.

A unique method discussed in the literature as means for assessing library program's effectiveness was published by Eckwright (2002). The assessment was based wholly on students' feedback. The feedback was elicited on three areas: self-reported confidence in information seeking, the effectiveness of the instruction, and the value and areas of possible improvement of the instruction. The measurement method did not produce any data reflecting skills learned and was so subjective that the researcher noted its difficulty in evaluating the students' comments.

Information literacy competencies involve concept learning in contrast to procedure learning according to (Cherry, Yuan, & Clinton 2004) who noted that concept learning is the current trend in educating library users in the utilization of the manual and electronic retrieval tools. The authors developed a computer assisted (CA) tutorial that was accessed on a stand-alone computer system and was available to undergraduate library users. Two studies were conducted to

determine the effectiveness of the tutorial in improving students' performance in OPAC searches. Transaction logs were analyzed, and the student participants of the first study performed markedly better after the CA tutorial than those who had not viewed it while the student participants of the second study performed only as well as those who had not viewed the CA tutorial. The causes of the differences in the results for the two studies were identified as differences in the participants of the two study groups and differences in the OPAC software products. The second study group participants consisted of students more familiar with OPACs and OPAC searching than the first group. The second group was also assumed to have an advantage over the first group due to different OPAC software. The second study employed a software product from a different vendor that was considered to have a friendlier user interface therefore negating the need for the CA tutorial.

This method of study was replicated by Michel (2001) using computer-assisted instruction. Students and faculty were asked to respond to a survey that asked about the Web-based library instructional guide developed by Radford University's academic librarians. The survey requested responses on the perceptions about the guide with a noted result that students stated they require both online guide and traditional classroom instruction, although they did not wish for the online guide to be the only instructional option. The conclusion of the study discussed the need for the survey to be revised and continued for long-term review. Also, the lack of current literature on assessing effectiveness causes concern.

All of the efforts of bibliographic instruction and information literacy are for naught when the user/student does not learn, integrate, and utilize the skills presented. Watson (2007) produced a literature review of works published beginning in 1980 through 1993 on evaluating library instruction. The author noted the study was a continuation of a similar study conducted by

(Werking 1980 in Watson 2007). With information literacy skills increasing as a necessary component for academic programs, the need to assess a student's competency in those skills is also necessary. The author's literature review evaluated the publications in terms of four areas: why programs were evaluated, the depth of the evaluation, evaluating the various characteristics of the programs, and the evaluation methodologies. Evaluating programs in order to improve them or to promote accountability and assessment of their effectiveness were goals identified as important evaluative requirements. The author reported that three evaluation methodologies were employed which include psychometric or pre/posttest method testing short-term retention skills. The sociological or questionnaire method was widely employed but could be biased depending on how questions were worded, how the rating scale was presented, and when the survey was administered. The goal-free or illuminative evaluation was the broadest of the three and viewed the effectiveness of a program as a characteristic of the participants' satisfaction. Various tools were combined in the illuminative form of evaluation including those just noted along with observations, activities, and discussion. The author concluded that evaluation can be a complex and even personal undertaking. In general, there was a lack of systematic evaluation of the effectiveness of information literacy programs due to time, cost, and methodology knowledge within the library environment. The need for solid evaluations was moving to the forefront of the library profession due to academic institutions' emphasis on an information literate graduate.

Ragains (2006) noted that evaluation of library programs should not make the mistake of tying the performance of a librarian's single traditional classroom instruction to an evaluation of the librarian. Satisfaction surveys could be responsible for such a mistake in assessment. Instead, methods of evaluating learning should be developed and used. Through a national survey of bibliographic instruction librarians, a few assessment trends emerged. One trend was the use of

responses from students on their satisfaction with library instruction. Several issues with this type of evaluation were noted, such as the lack of time between the instruction and the survey. Also, questions about the librarian's presentation style may be one-sided and not relevant to what the student learned. Peer review and instructor evaluations were also discussed, but these methods do not assess student learning either. Providing instruction through traditional classroom tutorials and electronic instructional guides was suggested by the author as a more effective manner of delivery. These delivery methods remove any librarian-specific issues and allow methods of assessment of learning to be developed specifically for skills learned through the instruction.

Focusing on the librarian's presentation along with bibliography reviews and student surveys were the multiple perspectives of measuring library instruction effectiveness used by Webster and Rielly (2003). Again, the study involved only traditional classroom library instruction but discussed the need for including online instruction in the evaluation of learning process.

Assessment of information literacy competencies was also discussed by Gross(2009). The assessment outcomes may be viewed as a multilevel process. The student project level is the basic graded product. This can be made an important assessment tool when course syllabi include references to incorporation of qualified information resources along with other information literacy competencies and the instructor reviews the product with information literacy competencies in mind. The learning assessments conducted to determine the degree of learning a student has attained was a more difficult level but could be accomplished by: a portfolio method, reviewing a collection of student works over the academic life of the student, or by the means utilized to determine levels of competency in the student's major field of study. An institutional level of assessment should be conducted to assess the effect of the information

literacy instruction across the curricula, such as institutional effectiveness data should be collected and assessed. Although the author discussed this assessment base on the traditional classroom delivery method. Oakleaf (2008) employed ALA's Evaluating Library Instruction instrument to evaluate an Information Literacy Skills course. The study employed three different aspects in evaluating the program. The students, the faculty, and the students' products were all reviewed. The ALA instrument was employed to provide a summative or long-term effect evaluation of the course, although some formative or data for improvement, evaluation was included. Oakleaf echoed the methodology dilemma discussed previously and noted in the conclusion that closed-end questionnaires and surveys provided limited information about the effectiveness of a program. Employing open-ended questions and discussion allowed students to relate more information that could then be analyzed to determine the impact of the learning experience.

The second aspect was the perception of the faculty that the instruction was worthwhile. The survey answered by the faculty implied that they felt the program had influenced the students' library use behavior and their course work products. And last, a review of senior students' research paper bibliographies was conducted. The author noted little difference between the papers of students who had received a short database-specific bibliographic lesson and those who had participated in the three-year 30 hour integrated Information Literacy Skills course. The conclusion noted that evaluation should be summative, employing a variety of tools so as to glean the broadest information about the life-long information literacy skills and experiences of students past the academic years. The bibliographic method of assessing library instruction was further reviewed by Choinski, & Mark. (2003). A literature review in the publication discussed multiple studies using this method of assessment. Three criteria were identified and used to

replicate that study with intent to create an instrument to standardize the scoring of the bibliographies. The emphasis on the scoring instrument and its use in the study led the authors to a discussion of the following needs: the need to correlate the grade of the research paper to the score on the rating; the need to ensure that students are instructed on the areas rated such as the differences of scholarly and popular journals, correct style of citations, and variety of resources; consideration of discipline-specific affects to the criteria; and the use of librarians only as raters. The overall method was one that can be replicated for future studies and can be refined and adapted to various instructional deliveries.

2.8 Information Retrieval Tools Available in Libraries

The massive information that abound both electronically and in paper form has made the need for information retrieval tools (IRTs) apparent. These tools have developed into widely used services and have become essential tools for finding information. It also went further to explain that many academic and public libraries use information retrieval systems (tools) to provide access to books, journals and other documents. From the forgoing, information retrieval tools (IRTs) therefore is the means or applications through which information can be accessed from various sources.

Information retrieval tools are crucial for retrieving information for educational outcomes. Also skills are required to selectively retrieve accurate and sufficient information stored in documents instead of all the information that may not be relevant for the students' research. Skill in information retrieval reduces the time wasted in seeking information. To surmount the problem of retrieving information, students may require a combination of skills which include informational retrieval skill, operational retrieval and strategic retrieval skills to make the process of retrieving information a simple task. Nieuwenhuyen (2015) reported that the skills for

retrieving information needed by higher education students include the skill “to navigate, select, evaluate and re-use information.” These skills involve the ability to handle the different retrieval tools that abounds.

Despite the expediency of these tools to information retrieval, their effective use in developing countries is being hampered by varying factors which include lack of information search and retrieval skills, low level of user education and information training, and students’ subject backgrounds (Fordjour, 2010 and Jegede, 2005). Information retrieval tools are usually called literature search tools as they are locational and they are very useful for answering research queries. Aina (2004) classify information retrieval tools into library catalogues, indexes, abstracts, and bibliographies. An effective and reliable information retrieval system must have provision for: prompt dissemination of information, filtering of information, the right amount of information at the right time, browsing, getting information in an economical way, current literature, interpersonal communication, and personal help. Onwuchekwa (2011) opined that an information retrieval system (tools) serves as a bridge between the world of creators or generation of information and the users of that information. He further identifies two broad categories of information retrieval systems these are:-

- In-house information retrieval systems which are set up by a particular library or information centre to serve mainly the users within the organization. An example of an in-house database is the library catalogue. Online public access catalogue (OPAC) provides facilities for library users carry out online catalogue searches, and then check the availability of the item required.

- Online information retrieval systems are those that have been designed to provide access to remote databases to a variety of users. Such services are available mostly on commercial basis, and these services are handled by vendors

2.9 Uses of Information Retrieval Tools in Academic Libraries

In the area of Information Retrieval Tools (IRTs), researchers have identified different aspects of Information Retrieval Tools in terms of their peculiarities, nature of search strategies, query formulation, constant power outage and usage. All these factors contribute to the way in which users use IRTs in libraries. To access information, users have different tools at their disposal. For this reason, different search and information retrieval tools have already been designed and used. Such tools, retrieve, index and classify the information available both in the traditional library and on the web to the benefit of the users (Ajiboye 2013). These tools are updated regularly to keep pace with the speeding growth of the information volume. Information retrieval tools are equipped with facilities with which users should be familiar if they are to make the best use of them. Retrieval tools are essential as basic building blocks for a system that will organize recorded information that is collected by libraries, archives, museums, etc. They are also engaged to find information in physical and electronic form, in databases, digital libraries, and networks. Examples of this are bibliographies, card catalogues, indexes, abstracts, subject gateways, directories, OPAC, CD-ROMS, online databases, internet search engines, etc.

Fordjour (2010) studied the prospects and challenges of information retrieval by the Legon students in University of Ghana. Finding shows that the students were fully aware of information retrieval tools and depending on the Faculty students belong used them. In a similar study, Ojo-Ade & Jagboro (2000) study on catalogue use, he revealed that users of the library were well informed and versatile in the use of library catalogue especially, the subject area of their interest.

In agreement with the above study, Adedibu (2007) study on Readings in Education, Development and Globalization on catalogue use, he notes that 90.01% use library catalogues. Adedibu further reveals high success rate of user's search skills could also be attributed to the students' knowledge of the use of the library gained from Library Instruction. However, the use of the information retrieval tools to obtain relevant information was a problem in some institutions. The main reasons for such difficulties in retrieving information was attributed to frequent disruption of Internet, inadequate time by students on campus and non-availability of training programs to educate students on how to use information retrieval tools to obtain relevant information. These problems notwithstanding, there have been positive uses of the search tools to retrieve relevant information by students in Nigerian institutions.

Barsan (2013) conducted a study to find out the individuals' attitude towards search engines as a tool for retrieving information where they reported that: "Individual computer experience, quality of search systems, motivation, and perceptions of technology acceptance are all key factors that affect individual feelings to use search engines as an information retrieval tool". Another survey was conducted by Nazim (2008) to examine the information searching behavior of Internet user at Aligarh Muslim University (AMU) the result shows that the academic staff spent more time on the Internet than the students and research scholars and also, Internet search engines were the preferred information searching tool, other methods such as databases, gateways and World Wide Web (WWW) were also used. Online journals and databases were the preferred information sources among them. Another study showed the success of library users in obtaining materials, particularly through electronic retrieval tools to satisfy their information needs in an academic library (Ciliberti, Radford, and Radford, in Ariyapala, & Edzan, 2002).

In a related study, Brophy and Bawden in Martzoukou (2008) also compared an Internet search engine (Google) with academic library retrieval tools in order to assess the relevant value, strengths and weaknesses of the systems and found that good coverage requires the use of both systems as both have unique features. They concluded that both systems had advantages and disadvantages but Google managed to retrieve a high proportion of relevant documents, adequate or good quality results and unique documents and there were no problems with accessibility. Chang and Perng in Malik & Mahmood (2009) investigated the information requirements and search habits of graduate students at Tatung University, results shows an extensive use of the Internet by the students and mostly about Web-based databases, electronic journals, and search engines. In sharp contrast to the foregoing is the finding of Liyana, Noorhidawati, & Hafiz (2010) on the use of information retrieval tools by postgraduate students of the computer science department of the University of Malaya, where they reported that the students were having difficulties in finding information that is suitable to their learning style using available information retrieval tools.

2.10 Summary of the Review

This chapter reviewed literature that are related to the area of the study. From the review, theory of library instruction was adopted using taxonomy of learning within the context of library activities and user behavior. Information retrieval tools available in libraries, the use of information retrieval tools and purpose for which the tools are being used by library users. The literature review effects of library instruction on students' use of retrieval tools with regard to their information needs, search skills, retrieval and use as well as the prescribed objectives of the instruction programs. Library instruction programs in Nigerian institutions were also discussed. The researcher review some methods of assessing instruction programs and portrays ways of

evaluating the impact of the programs on users. Effects of Library instruction on students' use of retrieval tools in the polytechnics libraries in the North-eastern states was the focused of this study. It must be noted that most of the literature reviewed in this study derived from universities of which library users have more skills than those in Polytechnics.

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CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology that was used in conducting the research. This includes the research method that was adopted, research design, population of the study, sample size and sampling techniques, Instruments for data collection, procedures for data collection and statistical techniques that were used in analyzing the data.

3.2 Research Method Adopted for the Study

Quantitative research method was adopted for this study. Kothari (2014) portrays that quantitative method emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires and surveys or manipulating pre-existing statistical data using computational techniques. This method found appropriate for this study because it collects data with the use of questionnaire and determine the impact of library instruction on students' use of retrieval tools in Polytechnic libraries in the North-eastern States of Nigeria.

3.2.1 Research Design

For the purpose of this study, cross-sectional survey research design was adopted for this study. As observed by Nworgu (2015) cross-sectional survey research design can be defined as a study in which group of people or item are studied by collecting and analyzing data from few individuals or items considered to be through representative of the entire group. In the same vein, Brewer, Steele, & Wang (2015) established that cross-sectional survey research design gives the researcher the opportunity to gain insight into the attitudes, thoughts, and opinion of members of

the population. This method is found appropriate for the study because the researcher collected data from librarians and students across the institutions to highlight the effects of library instruction on students' use of retrieval tools in their libraries. This study requires the use of sample to gather data from which certain values were calculated to estimate the value in the population.

3.3 Population of the Study

According to Razaq and Ajayi (2000), population is a collection of elements about which we wish to make an inference. This refers to the set of all elements, people and or observations that are related to a phenomenon that are of interest to the researcher. The population of this study comprised the entire accredited polytechnics in the North-Eastern State of Nigeria. There are eight polytechnics in the zone. Librarians and students in the polytechnics were used as the subjects of the study. Although, according to the records obtained from National Board for Technical Education (NBTE, 2016) and in academic registry divisions in the polytechnics under study, there are **85** librarians, **60,790** students in the entire polytechnics within the zone. In addition, they form the major group who provides the information required for the study. Table 3.1 shows the list of polytechnics and the affected librarians and student in the North-Eastern States of Nigeria.

Table 3.1: Target Population

S/N	Name of Polytechnic	Ownership	Year Established	Librarians	National Diploma (ND) Students
1	AbubakarTatari Ali Polytechnic, Bauchi	State	1988	9	6,930
2	Federal Polytechnic, Bauchi	Federal	1979	14	8,170
3	Ramat Polytechnic, Maiduguri, Bormo State	State	1976	15	9,900
4	Mai-IdrisAlooma Polytechnic, Gaidam, Yobe State	State	2002	7	6,940
5	Federal Polytechnic, Damaturu, Yobe State	Federal	1993	11	8,750
6	Adamawa State Polytechnic, Yola	State	1991	8	6,450
7	Federal Polytechnic Mubi, Adamawa State	Federal	1979	14	10,300
8	Federal Polytechnic Bali, Taraba state	Federal	2007	7	3,350
	Total			85	60,790

Source: National Board for Technical Education (NBTE, 2016)

3.4 Sample Size and sampling techniques

The sample population and size better informed the researcher of the current focus of the investigation (Krathwohl, 1998 in Gbaje, 2011). A sample of 2 Federal Polytechnics and 2 State Polytechnics wereselected using simple random technique from the total of 4 Federal Polytechnics and 4 State Polytechnics in North-Eastern States of Nigeria. A sample of **2%** of **27,870(557)** were randomly selected to represent the students across the sampled Polytechnics in the North-eastern States of Nigeria. Okunlamiri (2002) in Uhegbu (2009) stated that there is no

specified percentage of samples to a population as far as the sample will truly represent the population under study. While the entire librarians from the sampled Polytechnic were considered in the libraries. A total of **44** librarians constitutes the target of this category.

Osuala (2001) pointed out that a sample is a portion of a population as the representation of it. For the simple fact that the population of this study is very large and being scattered, stratified random sampling technique was employed for best results as portrayed by Chava, (1992).

Table 3.2: Distribution of Sample

S/N	Name of Polytechnic Libraries	Total Librarians	Total Students	2% of Students
1	Federal Polytechnic, Bauchi	14	8,170	163
2	Ramat Polytechnic, Maiduguri, Borno State	15	9,900	198
3	Federal Polytechnic, Bali, Taraba State	7	3,350	67
4	Adamawa State Polytechnic, Yola	8	6,450	129
	Total	44	27,870	557

3.5 Instrument for Data Collection

The researcher adopted questionnaire as the instrument for data collection. These method was adopted because the type of data required for the research was quantitative in nature. The choice of this instrument was also valid given the geographical spread of the institutions studied. Anthony (2006) sees questionnaire as an impersonal survey method and has an advantage of low

cost, reduction in biasing error, greater anonymity, considered answer and consultation including accessibility. Similarly, Best & Khan (2007) further elaborated that the questionnaire is used when factual information is desired and it has the following advantages: the person administering the instrument has an opportunity to establish rapport, explain the purpose of the study, and explain the meaning of items that may not be clear. In relation to this, Cohen (2000) explained that the questionnaire is widely useful instrument for collecting survey information, providing structure, often numerical data, being able to administer without the presence of the researcher and often comparatively straight forward to analyze.

The questionnaire was designed in such a way to solicit answer from respondents. Two set of structured questionnaires were constructed, one for librarians of which research question one, three and four were answered and the other one for students which comprises of research question two, three and five. The questionnaire was divided into two parts; Section A,; Personal data ,;Section B,; data relating to the issue under study. In order to score the questionnaire, five points Likert scale type of response was provided for the respondents to respond to the questions by selecting any of the alternatives they are most comfortable with.

3.6 Validation of the Instrument

The process of validation was conducted in order to ensure the credibility of the instruments. According to Mohammed (2005), instrument for data collection “is said to be valid when it is able to produce correct responses from the subject of the sample study”. In order to ensure that the instruments are capable of eliciting the required data and information from respondents, the

instruments was subjected to face validation. This is where it was presented to expert to check and make necessary observation, corrections and amendments to strengthen the instrument.

3.7 Reliability of the Instrument

The reliability of the instruments was established by conducting a pilot study within two weeks in Kaduna Polytechnic. Five librarians and thirty students were issued the research instrument. The reliability of the questionnaire was determined using a Split half technique; here the internal consistency of scores using scores from a single testing was used. A single test is administered but two scores are obtained for each individual, this means that the test is divided into two halves and sub-scores are obtained for each half. The two sub-scores are then correlated using Spearman Brown Formula to get the reliability co-efficient alpha of the scale. The general reliability co-efficient of each of the various questions included in the scale is $r=0.78$. This signifies that the instrument was reliable and capable of eliciting the data required by the researcher.

3.8 Procedure for Data Collection

With the aid of two research assistants, the researcher administered the questionnaires to the respondents. The administration of the questionnaire was carried out within one month to both librarians and students across the Polytechnics by the researcher. Research assistants has assisted the researcher in retrieving the copies of completed questionnaires from the respondents.

3.9 Procedure for Data Analysis

Two statistical methods were used to analyze the data collected. Descriptive and Inferential. Responses from research questions were analyzed using cumulative frequency table and percentages. This was first represented in ordinary numerals then expressed as percentages of the

total number of respondents and then shown in tables. The percentages show the rate of scores or the responses obtained within a particular range of respondents. Both the null hypotheses H_{0_1} and H_{0_2} raised in the study were tested using F-test (one way ANOVA) at 0.05 level of significance. The choice of F-test is because the study has one independent and one dependent variables and the samples are more than two institutions.

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CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presented the data collected, analyzed, discussed and was presented under the following sub-headings:

4.2 Response Rate

4.3 Descriptive Analysis

4.4 Inferential Analysis

4.2 Response Rate

Out of the 557 copies of the questionnaire distributed to the students across the sampled Polytechnics in the North-Eastern States of Nigeria 497 (89.2%) were duly completed and returned and found usable for this study. Also out of 44 copies of librarians questionnaire distributed a total of 37 (84.1%) copies were returned duly completed and found usable for this study. The high response rate was realized due to the simple fact that the research assistants used for data collection are library staffs in their respective institutions. It can also be attributed to the fact that the respondents were given up to two weeks within which to complete and return their copies of questionnaire. The response rate of library staff and students that constitute the complex is shown in table 4.1:

Table 4.1 Response Rate

S/N	Institution	Librarians			Students		
		No of Questionnaire Distributed	No of Questionnaire Returned	%	No of Questionnaire Distributed	No of Questionnaire Returned	%
1	Federal Polytechnic, Bauchi, Bauchi State	14	12	27.3%	163	146	26.2%
2	Ramat Polytechnic, Maiduguri, Borno State	15	11	25.0%	198	171	30.7%
3	Federal Polytechnic, Bali, Taraba State	7	7	15.9%	67	62	11.1%
4	Adamawa State Polytechnic, Yola, Adamawa State	8	7	15.9%	129	118	21.2%
TOTAL		44	37	84.1%	557	497	89.2%

Table 4.1 shows that library staff and students from Federal Polytechnic Bali recorded the highest response with 7 (100%) respondents; followed closely by Adamawa State Polytechnic Yola with 7 (87.5%) respondents. The differences in the response rate are mainly due to the population size of the respondents in their institutions since the administering is done proportionately. The same table revealed that majority 62 (92.5%) of the students that responded were from Federal Polytechnic Bali. This was followed by Adamawa State Polytechnic Yola with 118 (91.4%) respondents. The least response 11 (73.3%) and 171 (86.3%) came from the Ramat Polytechnic Maiduguri. The result of these is attributed to the minimal number of librarians and students in Federal Polytechnic Bali which enable the researcher to record a high response rate.

4.3 Data Analysis and Discussion

This section seeks to present the analysis of data collected for the study. In order to do so, the presentation and analysis of the data was done under two sub headings: descriptive analysis and inferential analysis.

4.3.1 Descriptive Analysis

This section analyses and discusses data collected for the purposes of answering the five research questions raised in the study. Frequencies and Percentages were used to compute and present the results.

4.3.2 Type of library instruction programs offered to students in polytechnic libraries in the North-eastern States of Nigeria

In an attempt to ascertain the type of library instruction programs offered to the students in polytechnics of the North-eastern states of Nigeria, the respondents were asked which instruction program they were enrolled in their institutions from the options provided in table 4.2 below.

Table 4.2 Type of library instruction program(s) offered to students in polytechnic libraries in the North-eastern States of Nigeria

S/N	Type of Library Instruction Programs	Name of Institution			
		Fed Poly. Bauchi	Ramat Poly. Maiduguri	Fed. Poly. Bali	Adamawa State Poly.
1	Use of library course	√	√	√	√
2	Library tour	√	√	√	X
3	Tutorial	X	X	X	X
4	User orientation	√	√	√	√
5	Workshop	X	X	X	X
6	Seminar	√	√	X	X

Key: √ (Offered) X (Not offered)

Table 4.2 shows the type of library instruction program(s) offered to students in polytechnic libraries base on the decision made by the institutions. These programs are offered to the students in various forms which is determined by students' size, number and qualification of staff. The table support the fact that the entire North-eastern states polytechnics offers the course use of library and user orientation programs. This discovery is in line with what Esse (2014) lamented that curriculum-based use of library and orientation of user platform have the highest number of respondents in their study conducted among five selected universities in southern part of Nigeria. Library tour and seminar were also integrated in some polytechnics to educate users on how effectively utilize the library resources and services. Workshop suffers the least mode of instruction in all the polytechnics possibly due to lack of fund and other equipment to organize the programs for their students. This implies that the most employed means of instruction as revealed in the table is the traditional face-to-face use of library course and user orientation in all the libraries within the study area simply because of the tradition in Nigerian tertiary institutions where lectures is the common method of imparting knowledge to the students.

4.3.3 Status of the course library instruction in North-eastern states polytechnics of Nigeria

This section revealed the status of library instruction programs to promote the use of library resources and services in polytechnic libraries of the North-eastern states of Nigeria. Table 4.3 provided the data portrayed by librarians as thus presented.

Table 4.3 Status of the course library instruction in North-eastern states polytechnics of Nigeria

S/N	Course Status	Type of Respondents			
		Librarians			
		Name of Institutions			
		Bauchi	Maiduguri	Bali	Adamawa
1	Part of General Studies	X	√	√	√
2	Core course	√	X	X	X
3	Not offered	X	X	X	X

Key: √ (Available) X (Not available)

The table 4.3 shows the status of the course library instruction in the polytechnic libraries. Library instruction programs are offered as a core course in federal polytechnic Bauchi only. Also Ramat Polytechnic Maiduguri, Federal Polytechnic Bali and Adamawa State Polytechnic formalized library instruction program embedded in a general study (GNS) in their polytechnics as scheduled in curriculum and course specifications of National Board for Technical Education (NBTE, 2004). This is in a way supported by what Anyaoku (2015) said about library instruction in tertiary institutions where he conducted a study to ascertain the nature and status of library instruction programs in south-eastern universities in Nigeria, the finding revealed that five universities out of seven embedded the course in General Study (GS) in their universities. Thus, non among the polytechnic libraries found not offering the programs in any form. This implies that library instruction programs are offered in all the polytechnics in the North-eastern states of

Nigeria in various forms and status to enhance effective utilization of library resources and services.

4.3.4 Effects derived from Library Instructions when using Retrieval Tools by Polytechnic Students in the North-Eastern States of Nigeria

The main truce of this study is to investigate the effects of library instructions on students' use of retrieval tools in the polytechnic libraries in North-eastern states of Nigeria. The researcher tried to find out the areas through which these tools enhance their academic activities. The researcher provided them with different aspects to choose from. The data collected and analyzed were presented in the table 4.4 below.

Table 4.4 Effects of library Instruction on the use of Retrieval Tools by Polytechnic Students in the North-Eastern States of Nigeria

Effects of library Instruction on the use of Retrieval Tools	Strongly agree		Agree		Disagree		Strongly disagree		Undecided	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Improves my skills in locating document	174	35.0	237	47.6	27	5.4	36	7.2	23	4.6
Enhanced my search strategy using manual and electronic retrieval tools	257	51.7	171	34.4	36	7.2	19	3.8	14	2.8
Get more familiarity with the various subject/entries in the tools	175	35.2	197	39.6	61	12.2	31	6.2	33	6.6
Enhanced ease of access and retrieval of documents	212	42.6	227	45.6	25	5.0	17	3.4	16	3.2
Enable me to become more independent on information search and use	166	33.4	212	42.6	45	9.0	39	7.8	35	7.0
Know more about different filing arrangements	197	39.6	225	45.2	31	6.2	20	4.0	24	4.8

Learn how to update my lecture notes	215	43.2	192	38.6	33	6.6	26	5.2	31	6.2
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The table 4.4 above revealed respondents' opinion on the effects of library instruction on the use of retrieval tools in Polytechnic Libraries in North-eastern states of Nigeria. The table revealed that 257(51.7%) of the respondents strongly agreed that library instruction has improves their search strategy using both manual and electronic search tools in their libraries, 237(47.6%) agreed to be improved in their skills of locating documents. It can be clearly seen from the table where a reasonable percentage of students respondents 227(45.6%) acknowledge the fact that library instruction enhanced ease of access and retrieval of document. However, 225(45.2%) of the respondents agreed to know more on different filing arrangements.

This finding looks interesting because it shows that polytechnic students acquire a lot of skills after completing their traditional face-to-face instruction programs. The high percentage recorded that library instruction has improves theirsearch strategy using manual and electronic retrieval tools and equally enhanced their technique in accessing and retrieving information materials in their libraries is in line with what Oyedipe (2013) discovered in his study among university students in south-western Nigeria on the source of students' IRTs knowledge and skills were he find out that the leading source of respondents' knowledge and skills for using information retrieval tools (IRTs) is the user education and information literacy program in their university libraries. Perng (2013) also discovered that students in technical and vocational education system (TVES) in Taiwan after completing library instruction class, it stimulates their self-confidence to freely search, retrieve and evaluate both printed and electronic sources of information they found. The high percentage recordedin learning how to update their lecture

notes is also a very good development. This because students gets little reading materials from their tutors and that cannot provide them with all information they need.

However, this finding portrays that polytechnic students exhibits competency on various uses and functions of retrieval tools after completing the instructional program which is line with the user behavior learning domains; affective, cognitive and psychomotor within the two levels of library learning; orientation and interaction components in the theory of library instruction. Thus, the researcher adopted the ACP learning domains and two levels of library learning to examine the effect of the instruction on polytechnic students and highlight the relationship between the domains and the levels through their demonstrated outcomes.

4.3.5 Challenges of library instruction programs in polytechnic libraries of the North-eastern states of Nigeria

The researcher tried to find out the challenges militating the instruction programs from librarians and students in polytechnic libraries of North-eastern states of Nigeria. The respondents were given various hindrances to indicate their opinions. Table 4.5 below shows their responses.

Table 4.5 Challenges of library instruction programs in polytechnic libraries of the North-eastern states of Nigeria

S/N	Challenges	Type of Respondents			
		Librarians		Students	
		Response rate	Response percentage	Response rate	Response percentage
1	Over dependence on one	0	0	102	20.5

	day orientation program				
2	Rapidly evolving technologies	1	2.7	77	15.4
3	Library anxiety	0	0	93	18.7
4	Lack of skills regarding search, retrieval and utilizing library materials	11	29.7	121	24.3
5	Students dependence on class notes for everything	7	18.9	41	8.2
6	Not giving assignment involving the use of library	2	5.5	63	12.7
7	Inadequate fund for information literacy programs	7	18.9	0	0
8	No period in the time table for the teaching of use library	9	24.3	0	0
	Total	37	100%	497	100%

Table 4.5 revealed the challenges of library instruction programs in polytechnic libraries. It can be deduced that a majority of librarians 11 (29.7%) and students 121 (24.3%) greatest challenge of library instruction is Lack of skills regarding search, retrieval and utilizing library materials by students. This is not surprising because navigating the library to search, retrieve and utilize a document is complex without having the necessary skills to carry out such task especially in libraries with larger collections. This makes most of the students to navigate all over the library shelves in search of a document “serendipity”. Following closely is over dependence on one day orientation as portrayed by students. About 102 (20.5%) of the students indicated that too much dependence on one day orientation pose a major challenge to library instruction as users could not acquire the required skills to make use of the library. This is in a way supported by Joseph (2005) in five identified problems of library instruction. Similarly, Ilo (2011) in his findings from the study he conducted in covenant university to ascertain the

problems hindering students from maximizing user education program. He discovered that insufficient period for library instruction hamper students from maximizing the use of library resources and services among others.

4.3.6 Other problems faced by students from library instructors in polytechnics of the North-eastern states of Nigeria

Attempt was made to identify other problems faced by students from the part of their instructors, a research question was asked on this regard. The respondents were asked to indicate the problems they face from instructors in their various institutions. Table 4.6 indicates other problems of library instructors using the Likert 5 point scale of measurement.

Table 4.6 Other problems faced by students from library instructors in polytechnic libraries of the North-eastern states of Nigeria

Problems	Strongly agree		Agree		Disagree		Strongly disagree		Undecided	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Teachers mode of instruction not adequate to impart the knowledge we require	51	10.2	32	6.4	327	65.5	72	14.5	15	3.0
Librarians are not equipped to attend to us for effective access and utilization of resources and services in the library	29	5.8	221	44.3	163	32.7	70	14.0	14	2.8
Instructors teaching the use of library are not well	31	6.2	73	14.6	260	52.3	109	21.8	24	4.8

acquainted with the programs themselves										
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The table 4.6 revealed that apart from the classroom instructions there is need for librarians to be assisting students in their libraries to effectively utilize the bulk of resources and services in their libraries. This can clearly be seen from the table where a reasonable percentage of students respondents 221 (44.3%) agreed with the fact that librarians are not equipped to attend to them for effective access and utilization of library resources and services in their libraries. However, the respondents disagreed that instructors mode of instruction not adequate to impart the knowledge they require with 327 (65.5%) and 254 (50.9%) disagree that the instructors are not well acquainted with the programs themselves. Thus, it could be said that both mode of instruction and instructors are consistent in achieving the objectives of library instructions in polytechnic libraries of North-eastern states of Nigeria.

4.3.7 Type of retrieval tools available for students use in the polytechnic libraries of the North-Eastern States of Nigeria

The study is among others aimed at identifying the type of retrieval tools available for students use in the Polytechnic libraries of the North-eastern states of Nigeria. In order to achieve this, list of retrieval tools were outlined for the respondents to tick as many retrieval tools as possible. Table 4.7 shows the types retrieval tools available for students use in the Polytechnic libraries of the North-eastern states of Nigeria as being studied.

Table 4.7 Retrieval tools available for Students in Polytechnic libraries

S/N	Type of Retrieval Tools	Name of Library			
		Fed. Poly. Bauchi	Ramat Poly. Maiduguri	Fed. Poly. Bali	Adamawa State Poly.

1	Catalog Cards	X	X	X	X
	Title catalog	√	√	√	√
	Author catalog	√	√	√	√
	Subject catalog	√	√	√	√
	Classified catalog	X	X	X	X
	OPACs	√	X	X	X
	Search engines	√	√	√	X
2	Abstracts	X	X	X	X
	Periodical abstract	√	√	X	X
3	Indexes	X	X	X	X
	Periodical index	√	√	X	√
	Subject index	√	X	X	√

Key: √ (Available) X (Not available)

The table 4.7 showed the available retrieval tools for students use in the polytechnic libraries of the North-eastern states of Nigeria. Availability of these tools within the library complex varies on the individual library's capacity to provide such tools, which is determined by size, infrastructure, number of staff and qualification. The table reveals that federal Polytechnic Bauchi has the capacity to provide highest number of the retrieval tools such as catalog cards, abstracts, indexes, online public access catalog OPAC and search engines. It is therefore followed by Ramat Polytechnic Maiduguri in that order with catalog cards, abstracts, indexes, and search engines. The table further revealed that Federal Polytechnic, Bali and Adamawa State Polytechnic libraries has the least number of retrieval tools available for students use.

Moreover, table 4.7 reveals that only Federal Polytechnic, Bauchi has online public access catalog (OPAC) in their library complex and non among the polytechnic libraries possesses

classified catalog. This portrays that Polytechnic Libraries in the North-eastern States of Nigeria does not incorporate the use of classified catalogs which can be used by library professionals. The implication is that documents could not be located professionally using classification numbers.

4.3.8 Level of Utilization of Retrieval Tools by Polytechnic students in the North-Eastern States of Nigeria

The researcher tried to find out the frequency of utilizing retrieval tools by Polytechnic students in their various libraries. The respondents were presented with some options to choose from. Their responses were presented on table 4.8 below.

Table 4.8 showing the level of Utilization of Retrieval Tools by Polytechnic students in the North-Eastern States of Nigeria

Retrieval Tools	Frequency of Utilization				
	Highly Utilized	Utilized	Rarely Utilized	Not Utilized	Undecided
Catalog Card	267(53.7)	102(20.5)	77(15.5)	36(7.2)	15(3.0)
Abstract	37(7.4)	80(16.3)	73(14.6)	236(47.5)	71(14.2)
Index	49(9.8)	87(17.5)	88(17.6)	216(43.3)	57(11.4)
OPAC	5(1.0)	19(3.8)	73(14.6)	251(50.3)	149(29.9)
Search Engine	113(22.6)	122(24.4)	187(37.5)	50(10.0)	25(5.0)

Table 4.8 shows the level of utilization of retrieval tools by students in Polytechnic Libraries in North-eastern states of Nigeria. From the analysis, it was evident that catalog cards records highly utilized by students with 267(53.7%). This is as a result of its simplicity to

identify and locate where a document is kept in the library, this is followed by internet search engine with 187(37.5%) as rarely utilized retrieval tool by students in polytechnics of North-eastern states of Nigeria. This is in agreement with the finding of Ajiboye (2013) on the study he conducted to ascertain the use of information retrieval tools by post-graduate students of selected universities in South-western Nigeria. The finding shows that catalog cards and internet search engines records the highest percentage of respondents. It is worthy of note to understand other factors play a significant role in this, that includes availability and accessibility of these tools. Other tools for information retrieval are as well utilized by students, never-the-less catalog cards stands out as the most frequent retrieval tool used by students while OPAC and abstract topped the least of not frequently used retrieval tools by students.

4.3.9 Time spent per week by Students on using the Retrieval Tools in Polytechnic Libraries of the North-Eastern States of Nigeria

In order to find out the time consumed by Polytechnic students on using retrieval tools per week, question was ask on this regard. The respondent were requested to indicate time spent per week for utilizing retrieval tools in their libraries. Table 4.9 presents time spent per week by polytechnic student using retrieval tools in their libraries

Table 4.9 Time spent per week by Students on using the Retrieval Tools in Polytechnic Libraries of the North-Eastern States of Nigeria

Duration/Time Spent per week	Frequency	Percentage
< 30 mins	215	43.1
1hr	176	35.3
2-3hrs	73	14.6
Not at all	33	6.6
Total	497	99.6

The table revealed that majority 215(43.1%) of the respondents said they spent less than 30 minutes in a week using the retrieval tools in their libraries. This was closely followed by 176(35.3%) of the respondents who said they spent one hour, while 33(6.6%) of the respondents said not at all respectively.

This finding looks uninteresting because it shows that on an average per week Polytechnic students spend less than 30 minutes using retrieval tools in their libraries. The high percentage recorded spending less time using the retrieval tools in their libraries. This is a clear indication that Polytechnic students in the selected schools for the study are either not familiar with its contents or they are not accessible to them.

4.3.10 Retrieval Tools preferred by Students when searching for a Document in their Libraries

The researcher tried to find out the retrieval tools preferred by students when searching for a document in the polytechnic libraries of North-eastern states of Nigeria. The respondents were presented with some retrieval tools to choose from. Their responses were presented in the table 4.10 below.

Table 4.10 Showing Retrieval Tools preferred by Students when searching for a Document in the Polytechnic Libraries of North-eastern States of Nigeria

Retrieval Tool	Preferred Levels				
	Highly Prefer	Mostly Prefer	Prefer	Not Prefer	Undecided
Catalog	78(15.7)	112(22.5)	272(54.7)	13(2.6)	22(4.4)
Index	45(9.0)	44(8.8)	83(16.7)	305(61.3)	20(4.0)
Abstract	45(9.0)	47(9.4)	62(12.5)	321(64.6)	22(4.4)
OPAC	36(7.2)	60(12.1)	42(8.4)	338(68.0)	21(4.2)
Search engines	94(18.9)	86(17.3)	257(51.7)	35(7.0)	25(5.0)

Table 4.10 revealed the retrieval tools preferred by student when searching for a document in their libraries. Majority of students 272(54.7%) preferred catalog card to search for a document from the library collection. This is in line with the study conducted by Edem (2009) to ascertain the retrieval tool preferred for information search among students of some selected Nigerian universities in their libraries. He discovered that students preferred card catalog to search documents in both university of Calabar and university of Uyo libraries more than any other tools. It is followed by the use of search engines 257 (51.7%) through their lap tops and smart phones. It is clearly indicated from the table where online public access catalog OPAC suffers the worst hit from the students' perspective. This can be attributed to non-availability of the system in most of the polytechnic libraries. However, index and abstract were not preferred by the students with 305(61.3%) and 321(64.6%) simply because of their complexity in determining their functions by polytechnic students.

4.3.11 Levels of Satisfaction with Retrieval Tools by students in the Polytechnic Libraries of North-Eastern States of Nigeria

In order to ascertain the level of users' satisfaction with the Retrieval Tools in Polytechnic libraries, respondents were requested to indicate their opinions using the Likert 5 point scale of measurement. Their responses are presented in table 4.11 below.

Table 4.11 Level of Satisfaction with Retrieval Tools by students in the Polytechnic Libraries of North-Eastern States of Nigeria

Retrieval Tools	Levels of Satisfaction				
	Highly Satisfied	Mostly Satisfied	Satisfied	Not Satisfied	Undecided
Catalog Card	252(50.7)	112(22.4)	111(22.2)	10(2.0)	12(2.4)
Abstract	41(8.2)	72(14.4)	84(16.9)	242(48.6)	58(11.7)
Index	36(7.2)	90(18.1)	97(19.6)	221(44.4)	53(10.7)
OPAC	25(5.0)	62(12.4)	40(8.0)	47(9.4)	323(64.9)

Internet search engine	156(31.3)	93(18.7)	122(24.5)	42(8.4)	84(16.9)
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Table 4.10 used to analyze the level of satisfaction as regards to retrieval tools in the polytechnic libraries under study. The analysis shows that, 252(50.7%) of the respondents said they were highly satisfied with the catalog cards in their libraries, followed by internet search engines with 156(31.3%). The result also revealed that OPAC record the least option by polytechnic students in the North-eastern states of Nigeria due to its non-availability in most of the polytechnic libraries in the North-eastern states of Nigeria. This implies that students derives satisfaction when searching a document in the library using library catalog because of its simplicity and detail description of a document with different entries, e.g. title, author and subject.

4.4 Inferential Analysis

This section presented the result of the inferential statistics used to test the 2 hypotheses formulated for this study, F-test one way ANOVA was used. The researcher used 0.05 as the level of significance for testing the hypotheses. This is because the research involves human beings and the 0.05 level of significance is generally accepted due to human error that is involve. The findings are presented as follows.

Hypothesis one

There is no significant difference in the types of retrieval tools available for Students in polytechnic libraries of the North-eastern states Nigeria.

The first hypothesis raised in this study seeks to find out whether there is difference between in the types of retrieval tools available for students in polytechnic libraries of the North-

eastern states Nigeria. One way ANOVA was employed to test this hypothesis. Table 4.13 shows the summary of the result.

Table 4.12 Type of Retrieval tools available in Polytechnic Libraries

ANOVA						
	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	1014.050	3	673.603	1.200	.475	Retained
Within Groups	224.500	493	561.125			
Total	1238.55	496				

From the analysis of data as presented in the above table, the null hypothesis that “there is no significant difference in the type of retrieval tools available for students in polytechnic libraries in the North-eastern states of Nigeria” was retained, because the probability level of significance observed in the test is 0.475 greater than 0.05 ($P > 0.05$). This implies that there is no significant difference in the types of retrieval tools available for students in polytechnic libraries in the North-eastern states of Nigeria. The analysis showed that Polytechnic libraries in the North-eastern states of Nigeria has different types of retrieval tools for their students use such as catalog cards, abstracts, indexes, internet search engines and OPACs. This implies that most of the retrieval tools are available in all the polytechnic libraries in the North-east. This can be attributed to the nature of academic programs in the institutions and users ability to utilize these tools among others.

Hypothesis Two

There is no significant difference on the use of retrieval tools demonstrated by students after completing the instruction programs in polytechnic libraries in the North-eastern States of Nigeria.

The second hypothesis in this study seeks to find out whether there is difference among on the use of retrieval tools by students after completing the instruction programs in polytechnic

libraries in the North-eastern States of Nigeria. One way ANOVA was also employed to test this hypothesis. Table 4.14 below shows the summary of the result.

Table 4.13 use of retrieval tools by polytechnic students after completing the instruction programs

ANOVA						
	Sum of Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	221.500	3	61.125	1.100	.014	Rejected
Within Groups	601.050	493	73.603			
Total	823.05	496				

From the analysis of data as presented in the above table, the null hypothesis that “There is no significant difference on the use of retrieval tools demonstrated by students after completing the instruction programs in polytechnic libraries in the North-eastern States of Nigeria” was rejected, because the probability level of significance observed in the test is .014 less than 0.05 ($P < 0.05$). This implies that there is significant difference on the use of retrieval tools demonstrated by students after completing the instruction programs in polytechnic libraries in the North-eastern States of Nigeria. The analysis shows that polytechnic students in the North-eastern states of Nigeria demonstrates positive increase in the use of retrieval tools in their libraries. From this finding it was noted that students use catalog cards, search engines, indexes, abstracts, and OPACs to ease their search and retrieval of documents from their various sources.

4.4 Discussion of Findings

The primary objectives of library instruction sessions focused on students learning basic skills needed to complete their assignments. Closely tied to these were the objectives that students would gain realistic expectations of library resources and learn that library staff are available and willing to help. Librarians might expect that after an introductory session covering various sources and search techniques, most student have different expectations of the library and more favorable perception of library staff. Students' expectations about the amount of time it takes to obtain library materials increased following instruction and, it is hoped, moved closer to the level at which the library usually performs. Students perceptions of their skill level also increased consistent with previous studies that suggested library instruction can increase student confidence levels. However, some were not so straightforward. Instruction did not appear to affect students' expectations on computers or print sources. Student knew that the main purpose of the session was to learn practical library skills, which would benefit them in their academic activities in the class. Many of the students had previous experience on information search and retrieval skills and probably were predisposed to positive attitudes and expectations about them. It seems reasonable that hands-on experience would either raise or lower expectations, and librarians assume or hope that comfort and ease of use come with practice. Librarians' instruction involved teaching students how to search documents using manual and electronic devices to retrieve information from various sources.

Another implied objective of library instruction was to increase students' expectations concerning the availability of appropriate materials to meet their research needs. It is unclear whether instruction was unsuccessful in this or whether expectations were already high and difficult to move up. It also might be expected that following library instruction, students would

have greater expectations of helpfulness and competence of library staff. If students really found themselves using the library faster and more easily than they expected, perhaps they perceived less need for help from staff. Accessibility is valued by students and the more accessible materials are, the more satisfied the users will be. Similarly, students valued library staff and when they perceived staff to be competent and helpful, they would be more satisfied with the library as a whole. It is interesting that the perceived usefulness of the effect of library instruction on students' use of retrieval tools would be associated with patrons' satisfaction when achieved. The study probe into the assessment of library instructions on students' use of retrieval tools in polytechnic libraries in North-eastern States of Nigeria. From the Data collected and analyzed in this study, the types of retrieval tools available for students in the polytechnic libraries as well as the types of library instruction programs offered in the polytechnics were discussed as follows.

From the findings, it was discovered that the retrieval tools available for students in polytechnic libraries are catalogs, abstracts, indexes and OPACs among others. These retrieval tools are the most common retrieval tools available for patrons and can be accessed manually and electronically in the library complex across the polytechnics in the North-eastern state of Nigeria. However, the finding portrayed that Catalogs and search engines found the most frequently used retrieval tools by students among the retrieval tools available in the polytechnic libraries. Library instruction programs were offered in various forms in which some polytechnics offered the program as core course while some polytechnics embedded the program in their general studies (GNS). Other instruction programs were also incorporated in the polytechnic libraries such as user orientation, tutorial, staff guidance and library tour. The effect

of these traditional face-to-face instruction programs reflects in students skills of information search and retrieval using manual and electronic search tools as shown in the study.

Finally, the finding shows that over dependence on one day orientation program, students depending on their lecture notes for everything, library anxiety and the attitude of librarians toward the students pose a big challenge on library instruction programs for effective access and utilization of resources and services in polytechnics libraries in the North-eastern States of Nigeria. Other problems includes rapidly evolving technologies, lack of skills regarding search, retrieval and utilizing library materials, and inadequate fund for information literacy programs.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of the study, summary of major findings, conclusion and recommendations for the study.

5.2 Summary of the Study

This study was carried out to investigate the effects of library instructions on the use of information retrieval tools by students in polytechnic libraries in the North-eastern States of Nigeria. To effectively perform this task, five research questions were formulated and two hypotheses were tested. Review of relevant literature was also conducted in which it was established that library instruction on students is being considered a must in an ever changing curriculum in Nigerian tertiary institutions. A total of **577** students and **44** librarians in **4** libraries that constitute the North-eastern states polytechnics were drawn from the population and used as sample for this study. The subject of the study were the librarians and students in the polytechnics of North-eastern states of Nigeria. Stratified sampling method was used to select respondents to accommodate the different strata of the subject involved in the study. The instrument used for data collection was questionnaire.

The data collected for the study were presented and analyzed using both descriptive and inferential statistics. Frequency distribution tables and percentages were used for the descriptive statistics while one way ANOVA was applied to test the two hypothesis as appropriate.

5.3 Summary of major findings

Based on the data collected and analyzed for this study, the following were the major findings:

1. Traditional face-to-face library instruction and user orientation are offered in all the Polytechnics to sensitize students on library use. But the courses were embedded in general studies by majority among the Polytechnics.
2. The students who participated in traditional face-to-face library instructions demonstrated a significant positive increase in the level of library search strategies and skills in using manual and electronic retrieval tools to search and retrieve information material from library collection.
3. The greatest challenge to library instruction courses were over dependence on one day orientation program followed by lack of skills regarding search, retrieval and utilizing library materials by Polytechnics students
4. Polytechnics libraries in the North-eastern States of Nigeria attested to the availability of manual retrieval tools which includes catalogs, indexes, and abstracts with only one Polytechnic library owns an electronic retrieval device which is an on-line public access catalog.
5. In terms of using retrieval tools by polytechnic students, catalog cards records the very frequently used retrieval tool by clientele solely because of its simplicity to locate where a document is kept in the library.

5.4 Conclusion

Based on the findings of the study, it could be concluded that library instruction prepares polytechnic students toward effective utilization of retrieval tools using the strategies and techniques acquired on how to search and retrieve information materials in their libraries.

That can be enhanced by incorporating the courses into the polytechnic curriculum as it is fairly offered in some polytechnics of the North-eastern States of Nigeria. The benefits of such are numerous. It would promote library patronage, increase retrieval tools usage and will make librarians to become more proactive and less reactive in discharging their services.

5.5 Recommendations

Arising from the major findings and conclusion of this study, the following recommendations were made. That:

1. The course library instruction should be incorporated in the polytechnics' curriculum and integrate other delivery methods of instruction to the traditional face-to-face delivery in order to affect changes in students library behavior.
2. The positive result recorded from the instruction programs on students' use of library resources and services provide encouragement to librarians and other educational institutions promoting library instruction and information literacy for life-long learning.
3. More periods should be allotted for library instruction as well as practical lectures on the use of library should also be organized at the polytechnic libraries to further enhance the students' use of information retrieval tools and other library resources.
4. There is need to incorporate electronic retrieval tools and specialized pointers to enhance access and retrieval of both electronic and printed information materials in polytechnic libraries in the North-eastern States of Nigeria.
5. Polytechnic students need to be sensitized on how to effectively utilize other retrieval tools apart from the library catalogs to carry out their research works and other academic activities.

5.6 Contributions to Knowledge

- This study uncover the effects of Library Instruction on the use of information retrieval tools by Polytechnic students, as it could not be over emphasized, hence, it prepare users to become library literates to access the avalanche of information resources and services for their academic activities and lifelong learning.
- The study also discovered that polytechnic students are not deriving the required skills expected from the instruction programs due to its status in most of the institutions selected in the study.

5.7 Limitation of the Study

The most obvious limitation of this study is the inability to cover the entire polytechnic population (i.e. Higher National Diploma HND), due to their size, time and the cost implication of carrying out such a task.

5.8 Suggestion for Further Study

This research focused on Assessment of Library Instructions on Students' Use of Retrieval Tools in Polytechnic Libraries in the North-eastern States of Nigeria. In the course of the research, the following area was brought to light which is not within the scope of this present study. Therefore, further studies need to be conducted in the following area;

- **Assessment of information Retrieval Skills among Polytechnic Students in the North-Eastern States of Nigeria.**

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Appendix I

Department of Library and Information Science

Faculty of Education
Ahmadu Bello University, Zaria

1st December, 2017

Dear Respondent,

I am a postgraduate student of the above named Department, Faculty and institution carrying out a research on **Assessment of Library Instruction on Students' Use of Retrieval Tools in Polytechnic Libraries in North-Eastern states of Nigeria**. It would be greatly appreciated if you take time to complete the items in the questionnaires. It is meant for academic research purposes and the information supplied shall be treated confidentially.

Thank you very much for your time and cooperation.

Yours Sincerely
Sa'ad Ibrahim

Appendix II

QUESTIONNAIRE ON ASSESSMENT OF LIBRARY INSTRUCTION ON STUDENTS USE OF RETRIEVAL TOOLS IN POLYTECHNICS LIBRARIES IN NORTH-EASTERN STATES OF NIGERIA

TYPE A: QUESTIONNAIRE FOR NATIONAL DIPLOMA (ND) STUDENTS IN NORTH-EASTERN POLYTECHNICS

SECTION A: PERSONAL DATA

Please kindly tick ()/fill the space provided

(1) Status

ND I ()

ND II ()

(2) Department-----

SECTION B: EFFECTS OF LIBRARY INSTRUCTION ON THE USE OF RETRIEVAL TOOLS

Please respond to the following questions by ticking (√) appropriate answer

3. What benefit did you derive from library instruction on the use of retrieval tools in your institution?
 - a. Improves my skills in locating document ()
 - b. Enhance my search strategy using manual and electronic retrieval tools ()
 - c. Get more familiarity with the various subjects/entries in the tools ()
 - d. Enhance ease of access and retrieval of documents
 - e. Enable me to become more independent on information search and use ()
 - f. Know more about different filing arrangements ()
 - g. Learn how to update my lecture notes ()

4. Please respond to the following questions using this scale: SA: Strongly Agree, A: Agree, D: Disagree, SD: Strongly Disagree, U: Undecided by ticking (√) as appropriate.

Effects of Library Instruction on the use of Retrieval tools	SA	A	D	SD	U
Library instruction improves my searching speed					
Enhance my search strategy with manual and electronic search tools					
Get familiar with the various subjects/entries in the tools					
Enhance ease of access and retrieval of documents					
Enable me to become more independent on information search and use					
Learn how to update my lecture notes					

Know more about different filling arrangements					
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SECTION C: LEVEL OF UTILIZING OF RETRIEVAL TOOLS

Please respond to the following questions using this scale: **HU: Highly Utilized, U: Utilized, RU: Rarely Utilized, NU: Not Utilized, U: Undecided**

5. How frequent did you use these tools when searching for a document in the library?

Retrieval tools	HU	U	RU	NU	U
Catalogs					
Abstracts					
Indexes					
OPAC					
Search engines					

Please respond to the following questions by ticking (√) appropriate answer.

6. On an average per week how many time do you spend using Retrieval Tools in your library?

Less than thirty minutes	
One hour	
Two to three hours	
Not at all	

Please respond to the following questions using this scale: **HP: Highly Prefer, MP: Mostly Prefer, P: Prefer, NP: Not Prefer, U: Undecided** by ticking (√) as appropriate.

7. After your instruction program(s), indicate the information retrieval tool you prefer when searching for a document in your library

	HP	MP	P	NP	U
Catalog card					
Index					
Abstract					
OPAC					
Search engines					

SECTION D: CHALLENGES OF LIBRARY INSTRUCTION

8. Please respond to the following questions by ticking (√) as appropriate.

- a. Over dependence on one day orientation program ()
- b. Rapidly evolving technologies ()
- c. Library anxiety ()
- d. Lack of skills regarding search, retrieval and utilizing library materials ()

- e. Students dependence on class notes for everything ()
- f. Not giving assignment involving the use of library ()
- g. Constant power outage ()

Please respond to the following questions using this scale: SA: Strongly Agree, A: Agree, D: Disagree, SD: Strongly Disagree, U: Undecided by ticking (√) as appropriate.

S/N	Other Problems	SA	A	D	SD	U
9.	Teachers mode of instruction not adequate to impart the knowledge we require					
10.	Library staff are not equipped to attend to us for effective access and utilization of resources and services in the library					
11.	Instructors teaching the use of library are not well acquainted with the programs themselves					

QUESTIONNAIRE ON ASSESSMENT OF LIBRARY INSTRUCTION ON STUDENTS USE OF RETRIEVAL TOOLS IN POLYTECHNICS LIBRARIES IN NORTH-EASTERN STATES OF NIGERIA

TYPE B: QUESTIONNAIRE FOR LIBRARIANS IN POLTECHNIC LIBRARIES IN NORTH-EASTERN STATES OF NIGERIA

SECTION A: PERSONAL DATA

Please kindly tick ()/fill the space provided

(1) Status/rank -----

(2) Unit/division -----

SECTION B: TYPES OF LIBRARY INSTRUCTION PROGRAMS

Please respond to the following questions by ticking (√) tick as many as possible.

3. What form of Library instruction program do you offer to your students?

User orientation	
Use of library	
Staff guidance	
Tutorials	
Library tour	

4. What is the status of the course library instruction/use of library in your institution?

Part of General Studies	
Core course	
Not offered	

SECTION C: CHALLENGES OF LIBRARY INSRUCTION

5. Please respond to the following questions using this scale: SA: Strongly Agree, A: Agree,D: Disagree, SD: Strongly Disagree, U: Undecided by ticking (√) as appropriate.

Problem	Strongly agree	Agree	Disagree	Strongly Disagree	Undecided
Over dependence on one day orientation program					
Inadequate of information resources for learning e.g. computers					
Rapidly evolving technologies					
Lack of confidence in the use of libraries					
Students dependence on class notes for everything					
Not giving assignment involving the use of library					
Teachers mode of instruction not adequate					
Inadequate fund for information literacy programs					
No period in the time table for the teaching of use library					
Instructors teaching the use of library are not well acquainted with the programs themselves					

SECTION D:RETRIEVAL TOOLS AVAILABLE IN THE LIBRARY

Please respond to the following questions by ticking (√) tick as many as possible.

6	Catalog Cards	TICK(√)
	Author catalog	
	Title catalog	
	Subject catalog	
	Classified catalog	
	OPAC	
	Search engines	
7	Abstracts	
	Periodicals abstract	
8	Indexes	
	Periodicals index	
	Subjects index	