INFORMATION LITERACY INSTRUCTIONAL PRACTICES: SURVEY OF UNIVERSITY LIBRARIES IN ZAMBIA.

By;

ALEXANDER CHISANGA

A Dissertation is submitted as Partial Fulfillment of the Requirements for the Award of the Degree of Master of Library and Information Science (MLIS).

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DECLARATION

I, **Alexander Chisanga** do hereby declare that this dissertation represents my own work and that it has never been submitted by anyone else at the University of Zambia or at any other University for the purpose of acquiring a degree or any other qualification.

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APPROVAL

This dissertation of Alexander Chisanga has been approved as a partial fulfilment of the requirements for the award of Master of Library and Information Science by the University of Zambia.

Examiner 1: C. Hamooya Signature ..... Date 15/6/2023

Examiner 2: Prof. A. Alwiakondela Signature ..... Date 29/06/23

Examiner 3: B. Njobvu Signature ..... Date 29/06/23

Chairperson Board of Examiners: Mweemba L (PhD) Signature ..... Date 15/06/2023

Supervisor: F. Makondo Signature ..... Date 15/06/2023

Co-supervisor: Dr Emess MM. Chitumbo Signature ..... Date 15.06.2023

ABSTRACT

Information literacy (IL) instruction is the fundamental professional practice in university libraries, and university librarians are primary providers of IL instructions, generally. Information literacy is designed to teach library patrons how to quickly and effectively locate information that they need from the library. Such patrons include students, researchers and other information users. Therefore, university librarians have a role to play in imparting students with fundamentals of IL skills such as developing a search strategy, critical thinking and familiarizing with search techniques. Once library users are equipped with IL skills, they would be able to identify knowledge sources available within the academic world, and even be ready to use knowledge tools for retrieving relevant content. This study intended to investigate the existing IL practices by professional librarians in university libraries in Zambia. A quantitative method based on descriptive research design was used. Data was collected through a cross-sectional survey method. The population of the study consisted of 62 (9 public and 53 private) HEI recognised universities in Zambia. A sample of 60 head librarians was purposively selected as participants for the study and covered through census survey. The questionnaire developed by Julien et al., (2018) was adopted according to the need of the study. Descriptive and inferential statistics were applied to analyse the data. The results of the study revealed that most university libraries were using basic level IL instructional practices. The most preferred methods of IL instructions were group library orientations and one-on-one computer practical. These practices were mostly done at the beginning of the year of study. In addition, results indicated that the extent to which IL methods were applied, were not informed by the new ACRL Framework for Information Literacy for Higher Education. Results further indicated that professional librarians had the same view concerning the opportunities for improvement of the IL instruction methods. The study recommended that universities should integrate IL instructions at undergraduate and post graduate levels as credit or no-credit courses to help students, researchers and other information users become life long and independent learners.

Keywords: information literacy; IL instruction; IL practices; University libraries - Zambia.

DEDICATION

I dedicate this work to my mother Theresa M. Chisanga and my late father J. T Chisanga for encouragement during my years of education.

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To God be all the glory!!

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ACRONYMS

ACRL	–	Association of Research Libraries
ALA	–	American Library Association
BI	–	Bibliographic Instruction
CBU	–	Copperbelt University
CLIP	–	Chartered Institute of Library and Information Professionals
DRGS	–	Directorate of Research and Graduate Studies
HEA	–	Higher Education Authority
HEIs	–	Higher Education Institutions
ICT	–	Information and Communication Technology
INASP	–	International Network for the Availability of Scientific Publications
IL	–	Information Literacy
ILI	–	Information Literacy Instruction
LAMU	–	Lusaka Apex Medical University
LIAZ	–	Library and Information Association of Zambia
NFIL	–	National Forum on Information Literacy
OPAC	–	Online Public Access
PAG	–	Policy Advisory Groups
SCONUL	–	Society of College, National and University Libraries
SPSS	–	Statistical Package for Social Sciences
TILT	–	Texas Information Library Tutorial
UWILL	–	University of Washington Information Literacy Learning
UNESCO	–	United Nations Education Scientific Organisation

USNCLIS – United States National Commission of Libraries and Information Science

UB – University of Botswana

UK – United Kingdom

UNZA – University of Zambia

US – United States

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CHAPTER ONE: INTRODUCTION

1.0 Overview

The study investigated the information literacy (IL) instructional practices in university libraries in Zambia. This chapter covers the background to the study, problem statement, objectives of the study, research questions, significance of the study, delimitation of the study, scope and limitation, operation definitions, theoretical framework and summary of chapter one.

1.1 Background to the Study

In the current era also known as the "information age", it is challenging for students, researchers and other information consumers in academic environment particularly in university and college sectors to consume information from different sources due to information explosion. In response to this phenomenon, university libraries across the globe are engaging in IL instructions so that information users are inculcated with IL skills (Kasowitz-Scheer and Pasqualoni, 2002).

One of the functions of Librarians is to empower information consumers with IL instructions so that they are able to effectively and responsibly use the information at hand. Information literacy is commonly described as the "ability to locate, manage, critically evaluate, and use information for problem solving, research, decision making, and continued professional development" (Baro, Seimode and Godfrey, 2013; Rafique and Khan, 2020). Different instructional approaches include course-related library instruction sessions, course-integrated projects, online tutorials, and stand-alone courses (Ameen and Ullah, 2016). The target groups are students, researchers and other information users in academic and research institutions. The common topics found in the IL programmes describe the library's system of organizing materials, the structure of the literature of the sector, research methodologies appropriate to academic disciplines and specific resources, including searching tools such as library catalog, indexes and abstracting services, bibliographic databases, among others (Dorvlo, 2016).

Thus, it was felt necessary to explore and get understanding of the IL instructional practices in Zambia by revealing the existing IL instructions, components of such programmes and methods of delivery. Other aspects included are challenges being faced by librarians with instructional roles and opportunities for improvement for a better way.

1.2 Statement of the problem

Academic Libraries have responsibilities of providing IL instructions so that students, researchers and other information users can become information literate. According to Baro and Seimode (2013) this teaching role is complex and challenging and it has moved from just teaching information seekers how to search for materials in the library, to comprehensive goals such as imparting transferable skills, which include critical thinking and information evaluation (Baro et al., 2013). The consequences of not having information literacy programmes in universities is that individuals may not develop intellectual abilities of reasoning, critical thinking and skills to 'learn how to learn' (ACRL, 2015). Dadzie (2016) argues that apart from insufficient orientations given to students when they arrive as freshers and sometimes orientations from lecturers to teach them how to search for information, there is no provision for information literacy courses as a major to be studied in most African university libraries. Literature indicating the extent to which university students in Zambia were exposed to IL skills once they enrolled in an institution of higher learning was not quite clear. There was also limited knowledge on whether university libraries in Zambia had functional IL programmes. Therefore, it was the intention of this study, to bridge this gap in knowledge.

1.3 Research Objectives

1.3.1 General objective

The general objective this study was to examine existing information literacy instructional practices in university libraries in Zambia.

1.3.2 Specific objectives

The present study aimed to address the following specific objectives;

1. To determine the existing IL instructional practices in university libraries in Zambia.
2. To establish the extent to which IL instruction in Zambian university libraries is informed by the ACRL Framework for Information Literacy for Higher Education.
3. To identify key challenges faced by university librarians with instructional roles.
4. To establish opportunities for improvement in the IL instructional practices.

1.4 Research questions

The research questions were:

1. What are the existing IL instructional practices in university libraries in Zambia?
2. To what extent does the ACRL Framework for Information Literacy for Higher Education inform the existing IL instruction?
3. What are the key challenges faced by university librarians in their instructional roles?
4. What are some of the opportunities for improvement in the IL instruction practices?

1.5 Significance of the study

Little is known on the IL instructional practices in university libraries in Zambia. The study endeavored to raise awareness about the importance of IL instructions in academic libraries so that appropriate IL lessons and services can be provided. It is also hoped that the findings of this study would be used to design effective IL programmes in academic libraries in Zambia. The study expected to raise awareness about the need to include IL programme in university curricula in Zambia. The study also hoped to raise awareness among library associations on the need to advocate for the inclusion of IL instruction in the main stream teaching. Ultimately, the results of the study would be helpful to managers of institutions of higher learning as they would learn about the importance of IL programmes in their institutions. Lastly, it is hoped that the study would provide additional knowledge to what already exists in the field of this study and open up new avenues for further research to be conducted. In turn, this may produce more research in the area of information literacy instruction.

1.6 Delimitation of the study

The study confined itself to university libraries in Zambia. The reason for confining to the aforementioned institutions was that university libraries handle a lot of patrons such as students, researchers and other information users. Further, these institutions are responsible for teaching and research at the highest level. Consequently, no information was made available on the IL instructional practices from other types of libraries such as schools, colleges, public and special libraries. This further implied that nothing would be known about those other types of libraries in

regard to this topic because the study was biased towards the IL practices that are found in university libraries.

1.7 Scope and limitations

This study was carried out in sixty (62) university libraries (9 public and 53 private) in Zambia. Due to COVID-19 pandemic restrictions, financial resources and time constraints, it was not possible for the researcher to conduct personal observation of instructional practices in other universities for a comparative study. Instead, the researcher employed a self-administrated online questionnaire to the respondents. Owing to the same reasons it was not possible for the researcher to survey university libraries in the outskate areas. In spite of these limitations the researcher was very much assured that the results of this study are valid.

1.8 Theoretical Framework

Over the years several models have been developed on IL instructions. The theories have been introduced for teaching and reinforcing the information searching and information using processes. The following are the three prominent models of the research processes that have been developed (Brand-Gruvel, et al 2009); Kulthau presented her ISP model of the Information Search Process first in 1985; Stripling and Pitts put forward their thinking frame model in 1988 and Eisenberg and Berkowitz introduced in 1988 their Big6 programme and learning model. Since then some other models based on information literacy instruction have been designed, for example the Seven faces of information literacy model (Bruce, 1997), Horton´s (2008) Information literacy model and The seven pillars of information skills model (SCONUL, 2011). Todd (2000) also states that these models have been introduced on information literacy theories, learning and training in order to clarify the concept and its facets. These models are well recognized and worth mentioning.

However, this study was guided by the big6 model theory because the intention of this model is to create an effective tool that would help librarians and students to conduct a research process as an inquiry. According to Eisenberg and Berkowitz (1988) in the book information problem solving, learners go through different stages when they seek information in order to solve a problem. This approach of information literacy instruction clarifies the problem at hand. In addition, the big6 model for IL instruction is predicated on the hypothesis that theories in IL instruction are

intertwined with learning theories since acquiring information literacy competencies is a learning process.

Information literacy, which requires critical thinking, is based on functional literacy and for example on computer literacy, digital literacy, media literacy, web literacy, information handling and information skills, visual literacy, civic literacy and critical literacy.

Regarding the Information and Technology Skills for Student Achievement Programme, information problem-solving should be described in terms of the following six two part steps:

1) **Task definition:** Define the problem and identify information requirements.
2) **Information seeking strategies**: Determine range of sources and prioritize them.
3) **Location and access:** Locate sources then find information within the sources.
4) **Use of information:** Engage (read, view etc.) and extract relevant information.
5) **Synthesis:** Organize information from multiple sources and present information.
6) **Evaluation:** Judge the process (efficiency) and judge the product (effectiveness).

According to the Big6 Theory, librarians with IL instructional roles should take learners through different stages when they seek or apply information to solve a problem or make a decision. Eisenberg and Berkowitz (2001) state that even though it is not necessary to complete the stages in linear order, but it is an approach that should clarify the problem at hand. The figure below shows clearly the adaptability and flexibility of the ILI programme: information-problem solving is not always a linear step by step process: “the stages do not need to be completed in any particular order or in any set amount of time” (Eisenberg, 2008:42).

The following figure shows the big6 model as the feedback process for the IL instruction.

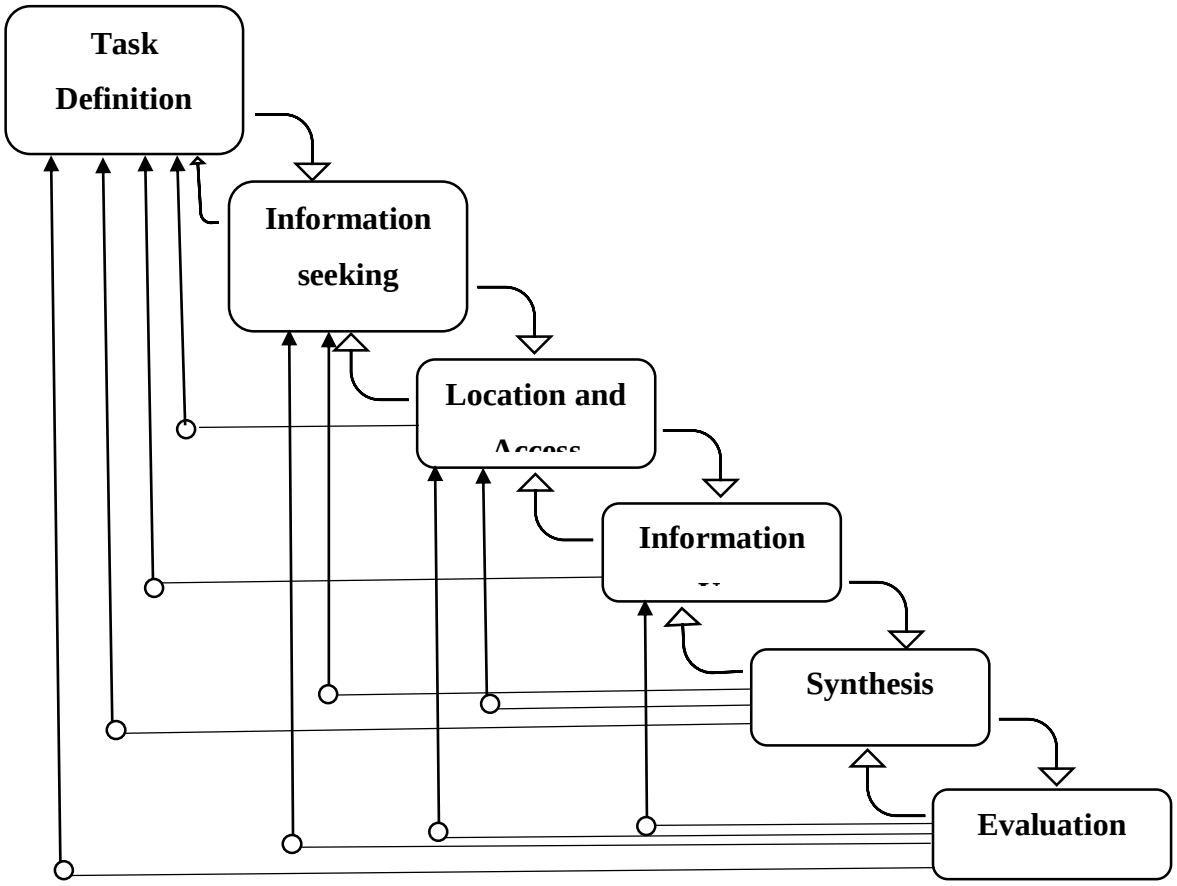

Figure 1: The Big6 as a feedback process (Eisenberg, 2008, 42).

1.9 Operational definition:

Academic Library: An academic library is a library that is attached to a higher education institution and serves two complementary purposes: to support the curriculum, and to support the research of the university faculty and students (Curzon and Jennie, 2009).

Databases: A bibliographic database contains bibliographic records. It is an organized collection of references to published digital literature, which includes conference proceedings, journals and newspaper articles, government and legal publications, patents, standards, reports, books, periodicals, etc. (Nihar, 2017).

Information Literacy: Refers to the ability to understand when there's a requirement for information to be ready to identify, locate, evaluate and effectively use that information for the difficulty or problem at hand (ACRL, 2013).

Information Literacy Instruction: Refers to teaching the students engage in creative and critical thinking about research and information resources. It facilitates students' development as knowledge creators, lifelong learners, and participants in academic and scholarly activity (Grassian and Kaplowitz, 2001).

Library patrons: refer to students, researchers and other information users (Lorenzen, 2003).

Library Instruction: Refers to "instructional programs" designed to show library users the way to locate the knowledge they have quickly and effectively (Grassian and Kaplowitz, 2009).

1.10 Summary of chapter one

This chapter has covered the background of information literacy. The theoretical framework used is drawn from the big6 model. The chapter also outlines the statement of the problem, purpose of the study, objectives of the study, the significance of the study, delimitation of the study, limitations of the study and the definition of operational terms.

CHAPTER TWO: LITERATURE REVIEW

2.0 Overview

This chapter provides an insight into studies that have been carried out by various authors on IL instructions. A wider range of books and journals dealing with IL Instruction theories and practices were reviewed. This literature review allowed the researcher to understand better the research problem in terms of historical background, theoretical framework and existing trends in IL instructional practices and methods.

The chapter is divided into four thematic sections as guided by the research objectives. The first section reviews some of the previous researches done on IL in general as well as IL practices in academic institutions in particular. The second section deals with literature on the extent to which IL instruction is informed by the new ACRL Framework for IL for Higher Education. The third section looks at the challenges faced by librarians with IL instructional roles. While the fourth section looks at the opportunities for improvement in the IL instructional practices.

Studies have been carried out in various countries in the world such as Zambia, South Africa, Zimbabwe, Tanzania, Kenya, Uganda, Nigeria, Ghana, England and USA to examine the IL instructional practices in academic libraries. This next section will review studies done on IL instructional practices in academic libraries to have a better understanding of the topic at hand.

2.1 The concept of Information Literacy

Students today face a daily explosion of information resources and the challenge of using these resources effectively and responsibly. Academic libraries worldwide have therefore responded by providing instruction in information literacy, described as the "ability to locate, manage, critically evaluate, and use information for problem solving, research, decision making, and continued professional development" (Kasowitz-Scheer and Pasqualoni, 2002). Further, Doyle (1994) in Kasowitz-Scheer and Pasqualoni (2002) has emphasised that information literacy should be offered in large scale because it can help students' development as knowledge creators, lifelong learners, and participants in academic and scholarly activity. Furthermore, Kasowitz-Scheer and Pasqualoni (2002) have outlined the following four major information literacy topics that should be incorporated in the academic curriculum:

- An introduction to available library resources and services.
- An exploration of disciplinary databases, journals, and other tools.
- A discussion of appropriate sources and information credibility.
- Additional content tailored to specific class assignments and outcomes.

Information literacy programmes should therefore be conducted to students at all levels. Julien et al.,2018 argue that having minimal implementation of information literacy programmes in academic libraries can deprive the learners with required abilities outlined in the Alexandria Proclamation (2005) and Prague Declaration (2003) - to identify information need, seek, locate, critically evaluate and use information. Academic librarians in various parts of the world have stressed the need for IL programmes in university libraries (Naveed & Rafique, 2018). One of the methods being used to conduct information literacy programmes is the information literacy (IL) instruction.

2.2 Instructional practices

In recent years, some studies have been conducted on information literacy instructional practices. A study by Rafique and Khan (2020) investigated the IL practices and methods used by the library professionals at universities of Lahore in Pakistan. The results of the study indicated that most of the academic libraries were doing a basic level of information literacy practices like library tours and library orientations to the new students. The study thus proposed a formal information literacy course for the first semester students to make awareness to the students about library services and resources at the university.

Julien and Latham (2018) conducted a study to investigate the practices, methods and challenges of IL instructions in U.S academic and research libraries. A structured questionnaire was used for data collection. Findings of the study revealed that, some academic libraries executed the role of IL instruction successfully and that first year students were the primary focus through the teaching faculties in specific disciplines. The primary objective for instructional roles in U.S academic libraries was to teach students general research strategies and how to critically evaluate the quality and usefulness of information they came across (Julien and Latham, 2018).

Another study by Baro and Seimode (2013) in the United Kingdom (UK), found that libraries have been promoting IL instructions in Higher Education as an integrated element in the curriculum.

Various universities have adopted an array of IL instruction approaches. Some universities combine Web-based IL instructions into first-year university courses and develop students with concepts to grasp, select, database searching and internet source evaluation (Baro, 2013). Universities conduct IL tutorials in a visual attractive setting and lectures to mass media literacy. Librarians conduct interactive learning exercises and different audiovisual components such as sound, quick-time movies and animations.

According to a case study by Baro (2013) on information literacy programmes in university libraries found out that different methods in the practices of IL instructions in Europe have been undertaken depending on the needs of an institution. Some academic libraries are conducting IL instructions through the internet while others do it face-to-farce. Another popular trend is the IL tutorial, which is an interactive, Web-based programme designed to take students through general IL concepts and information resources. Yearwood, Forsberg and Rosenberg (2015) argues that these tutorials in some instances are a replacement and or supplement to face-to-face library instruction sessions.

Another study by Mugwisa (2015) examined the role of libraries in teaching information literacy in universities in Zimbabwe and South Africa. Findings of the study revealed that IL instructions was adopted by Zimbabwean library professionals since the year 2000. However, there is still little that is known about the IL programme being part of the curriculum despite the fact that most academic libraries were trained and equipped through the International Network for the Availability of Scientific Publications (INASP). The same study revealed that in South Africa most academic libraries provide IL instructions under different titles and names such as library orientation, user education and communication and study skills. There are common as well as uncommon topics offered to students. The programmes are largely offered to first year students by qualified library professionals.

In a case study by Lumande et al (2013) on building partnerships for information literacy among Higher Education Institutions (HEIs) in African Universities: Opportunities and Challenges, it was revealed that University of Zambia (UNZA), Copperbelt University (CBU) and University of Botswana (UB), entered into partnership to develop IL instruction programmes in their respective institutions. The IL project was funded by University of Aberdeen in 2013. Nevertheless, the study indicates that UB was able to meet the timeframe in which the three institutions agreed to start the

implementation of the IL programme after a joint venture was ratified. Meanwhile, there is little that is known about how far academic libraries in Zambia have gone with IL instruction programmes.

However, earlier studies in the year 2000 by Akakandelwa on the status of user education at the university of Zambia found that little was being done to improve the instructions at the oldest institution of higher learning in the country. He recommended for the adoption of best practices, since in Zambia many students who entered institutions of higher education came from secondary schools that lacked libraries. He therefore, argued that those students have limited knowledge of library resources or lack the ability to exploit them to retrieve relevant pieces of information. Thus, they cannot be expected to participate effectively in independent academic activities such as the writing of quality papers for assignments if they have not undergone User Education programmes.

2.2.0 Current approaches to information literacy instructions

There are various approaches and combinations of methods of IL instructions which are being conducted depending on the needs of the university or institution of learning (Yearwood, Forsberg and Rosenberg (2015). The following examples are some of IL methods being undertaken:

- Online information literacy instructions

Due to an increase in remote access to information and a demand for more rapid, anytime-anyplace sharing of information, many academic libraries have started offering IL instructions via the Internet (Khan and Rafiq, 2020). The most common online instructional tool is the Web-based guide such as pathfinders and webliographies. Another trend that has gained popularity is the information literacy tutorial, which is an interactive, Web-based programme designed to introduce students to general IL concepts and information resources. These tutorials sometimes replace or supplement in-person library instruction sessions (Khan and Rafiq, 2020).

Specific cases receiving recent attention within higher education include:

- The University of Texas at Austin's Texas Information Literacy Tutorial (TILT) integrates Web-based IL into first-year college courses and enhances students' conceptual grasp of information resource selection, database searching and Internet source evaluation.

University of Texas, Austin offers interested educational institutions a zero-license fee option for customizing TILT to meet individual needs (TILT, 2004).

- The California State University Information Competence Project presents IL tutorials in a visually interesting environment and addresses mass media literacy. Interactive learning exercises and diverse audiovisual components (e.g., sound, quick-time movies, animations) are incorporated (California State University, 2001).
- The University of Washington Information Literacy Learning (UWILL) initiative is designed to teach information literacy skills in context with course objectives. Customized tutorials assist students in completing course assignments while developing information competencies (UWILL, 2001).

Online IL instructional tutorials are useful in many ways to students, faculty and librarians. However, they have also been criticized for being tedious and text-heavy presented as stand-alone lessons, disconnected from courses or assignments, lacking sufficient interactivity to create adequate active learning experiences and communicating an academic research process that is not relevant to students' expectations (Kasowitz-Scheer and Pasqualoni, 2002).

Some institutions offer formal IL courses whereas others do it informally. These courses range from for-credit to non-credit, from required to elective, and from distance to face-to-face. They can involve integration with a core curriculum, specific discipline or course, or general information skills (Grassian and Kaplowitz). Such courses have gained popularity because they offer opportunities for in-depth instruction and reinforcement of research skills through course activities. The instruction is most effective when offered in context with content-based courses and assignments.

According to Kasowitz-Scheer and Pasqualoni (2002) academic libraries have incorporated meaningful learning experiences into IL courses in various ways:

- University of Oregon's LIB 101 course uses a "scenario-based approach" by building assignments around research situations familiar to undergraduate students.
- Instructors of "Information Literacy" at the State University of New York College of Environmental Science and Forestry offer research assignments allowing students to address topics from their other courses.

- Montana State University College of Technology's Information Literacy course requires students to investigate a personal problem using information gathered throughout the course.
- University College of Maryland offers a required online course, "Information Literacy and Research Methods," in which students research a particular topic and participate in electronic discussions on timely research issues.

2.2.1 Best practices and methods

From the aforementioned, it can be observed that academic libraries have several identifiable best IL instruction practices and methods across the globe and mostly their preferred format was the face-to-face interaction with information users. It is therefore important that academic libraries equip their patrons with best IL skills so as to make them use the available information resources locally, regionally and worldwide.

ACRL's Best Practices Initiative (American Library Association, 2001) has provided the most complete sets of best practice features that have stated the importance of integrating IL throughout students' academic period. To implement the best IL instructional practices universities should design IL programmes that are able to meet specific needs instead of prescribed set of criteria (ACRL, 2015). This view is consistent with Grassian and Kaplowitz (2001) who stressed that the implementation of best IL instruction programme should depend on an institutional and situational factors such as audience, purpose, budget, staffing, facilities, and time.

ACRL provides a detailed outline of the recommended components for excellent IL instruction planning, collaborative IL instruction pedagogy, outreach to academic departments and other efforts necessary for creating successful IL instruction outcomes. In addition, the literature offers some specific characteristics of successful IL instruction programmes such as: use of student-centered, active, and collaborative learning methods (Rafiq and Khan, 2020), adherence to instructional design principles during planning (Rafiq and Khan, 2020), relevance to particular course goals and, ultimately, the overall curriculum (Dadzie, 2016), formation of partnerships between library, faculty, and other campus departments (Julien et al., 2018), support of faculty learning and development (Baro, Seimode and Godfrey, 2013) and scalability for large numbers of students (Dorvlo, 2016).

The IL instructions in an academic setting includes a variety of instructional methods, such as course-related library instruction sessions, course-integrated projects, online tutorials, and stand-alone courses. Those running formal IL instruction programs consider curricular objectives, invoking combinations of instructional solutions over a period of time (Kaplowitz, 2001).

Other institutions of higher learning go beyond the stand-alone information literacy course by integrating IL instructions into the overall curriculum. An across-the-curriculum approach is favored because it ties information literacy into all students' experiences (Grassian and Kaplowitz, 2001). This model requires collaboration among the library, other academic departments, and administration to meet the common goal of teaching information literacy skills.

Specific approaches and methods include integration of information literacy objectives into general education and first-year programs (Jacobson et al, 2010) and development of campus wide information competency initiatives (Grassian and Kaplowitz, 2001). In these situations, libraries, faculty and others work together to provide ILI at the point of need.

2.3 The ACRL Framework for Information Literacy Instruction

The following are the five IL standards reviewed by the Association of College and Research Libraries (ACRL) (ALA, 2015) and approved by the Board of Directors of the ACRL.

1) Standard One: The information literate student determines the nature and extent of the information needed.
2) Standard Two: The information literate Student accesses needed information effectively and efficiently.
3) Standard Three: The information literate student accesses needed information and its sources critically and incorporates selected information into his or her knowledge base and value system.
4) Standard Four: The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.
5) Standard Five: The information literate student understands many of the economic, legal, and social issues surrounding the use of information and uses information ethically and legally.

The ACRL standards indicate that information literacy is the basis for obtaining accurate and complete information. The information seeker is able to obtain information in an intelligent manner. ACRL explains the standards as follows: The information literate person can retrieve information from different sources by using different methods. This involves the use of different search systems including online and other different search tools. This ensures that the information retrieved is very efficient and effective and will be used for decision making and problem solving. An information literate person is able to critically retrieve information that is needed (ACRL, 2015).

Standard One: Recognizing the information needed

An information literate person can recognize the information that is needed. Meaning a student is able to formulate questions and answers from the information obtained. However, Aggrey et al (2009) found out that most students have challenges to formulate search keys hence it is difficult for them to utilise tools such as electronic databases and internet sites (ACRL, 2015).

Standard Two: Effective and efficient access to the needed information

An independent learner has no trouble to get information that is needed. Students are able to formulate key words which can enable them to quickly and effectively search for the information they need. ACRL (2015) supports this view that it is not just about learning to locate for information but to also know how to evaluate the information that the learner needs. Selikem (2016) states that it is the responsibility of academic librarians to ensure that their students acquire extensive knowledge in information seeking skills. Librarians should play this role because they are the sole custodians of information which students, researchers and information users are looking for.

An information literate person should be able to incorporate information into knowledge base. He or she can summarize the ideas. The Chartered Institute of the Library and Information Professionals (CLIP) Policy Advisory Groups (PAGs) describe information literacy as a way of providing information skills to all members of the society so that they can acquire information they need effectively and efficiently (ALA, 2000). Selikem (2016) highlights that studies conducted in Africa and other parts of the world indicated that the majority of students lacked basic skills in search strategies. In the United Kingdom students lacked competency in information search such

as using bibliographical databases. Also in the USA most students were not able to use electronic databases such as the CINAHIL and MEDLINE (Tarrant et al, 2007).

Standard Three: An information literate person should access the needed information and its sources critically. He or she can gather information in form of texts then summarize that information into the context that can make the reader to understand. He or she should be able to evaluate information sources by examining and comparing in terms of reliability, validity, accuracy, authority and timeliness without expression of bias. This view is supported by Baro (2010) that information literacy cannot be separated from critical thinking. Dadzie (2016) states that several students search for information from the internet but it is not certain whether that information is reliable, valid and accurate. But Lamptey (2009) argues that most students who obtain information from online sources know how to evaluate the internet site.

Standard Four: An information literate person either individually or as a member of society should effectively use information to accomplish a specific resolution. He or she should incorporate selected information into his or her knowledge base and value system. Aggrey, Anafo and Lamptey (2009) discovered it to be a challenging phenomenon to most students. They stressed the need for students and other information seekers to adopt effective and efficient habits of searching and using information.

Standard Five: An information literate person should understand many economic, legal, and social issues around the use of information. He or she should use information ethically and legally. In the evaluation of information users should make sure they do not abrogate the law of copyright by engaging in plagiarism. Aggrey (2009) states that ethical and legal use of information should be the last concept of information literacy. Aggrey (2009) emphasizes that such tenets are attributes of putting information to good use. Aggrey (2009), Anafo (2009) and Lamptey discovered that most students were knowledgeable about the laws surrounding copyright and plagiarism.

In this study the variables that are used to determine who an information literate person is include; determining the nature and extent of the information needed, accessing the needed information efficiently and effectively, incorporating selected information and its sources critically into knowledge base and value system, effectively and efficiently using information to accomplish a specific purpose and understanding economic, legal and social issues surrounding the use of information ethically and legally.

Kasowitz-Scheer and Pasqualoni (2002) reported that academic institutions that offer IL instructions with the addition of the new Framework for Information Literacy, have fully evolved their library instruction with tremendous success. Teaching and Learning Services within their libraries have raised their instructional brand in a significant way. Consequently, in the process of developing a new IL plan and programme where research skills are the beginning and reflective of the new ACRL (2015) Standards, libraries are able to make instruction sessions more engaging with a greater focus on the IL Framework concepts through activities and gamification techniques. This can aid students to leave with a greater understanding of how information works and develop transferrable skills beyond the classroom. The IL Standards are great as training wheels to get libraries in the right direction towards authentic assessment (Julien and Latham, 2018).

It can be construed from the above discussion that information literacy is very important in academia. We can therefore deduce that the mentioned characteristics should be the attributes of an information literate person. This means that an information literate individual should be able to locate, evaluate, use legal and ethical means for the retrieved information.

2.4 Challenges to information literacy instructions

There so many efforts librarians with instructional roles are making worldwide to ensure that IL programmes succeed in their respective institutions. However, there are challenges being faced. Among the challenges is lack of time, financial and human resources (Julien et al., 2018). In the United States of America, Canada and United Kingdom, librarians complain of not being allocated with enough time for teaching IL skills and lack of time for planning and strategizing the implementation of IL programmes (Julien and Latham, 2018).

A study by Gross et al (2018) on the challenges of IL instruction, highlights problems such as balancing instruction with other job duties, lack of formal training and shortage of available instruction space and technology. In addition, too many students, too few librarians including the prevalence of the one-shot model of library instruction and the expectation of what to teach to be communicated over the course of an hour. However, they cannot expand their programme any more. Instead, they focus on instruction for full-sized classes and for all students on a 1:1 student basis.

Another study by (Selikem, 2016) found that other challenges were related to lack of student motivation. It's clear that they become bored with library instruction sessions and think each session contains the same content even though from librarian's perspective each is tailored towards instruction session to the course subject and research assignment.

An investigation by Madete (2018) on the IL challenges faced by universities in Kenya. The study revealed that universities that do not practice formal IL programmes struggle to convince faculties to understand the value of instruction. The faculties accuse libraries of not having the standing or cultural value that faculty do, consequently, librarians give tours not instruction. Other challenges include lack of enough faculty interest in library instruction. Lack of formal assessment programmes and absence of proof that library instruction is helping improve students' work. Other challenges include perceived lack of support from university administrations.

A longitudinal study by Tan and Merillat (2013) on instruction for information literacy in Canadian academic libraries, found out that despite some administrations claiming advocacy for library instruction, they had no fundamental understanding of IL instruction. The study further states that librarians are moving toward a performance based model across all disciplines and without a credit library course, thus, are unable to provide metrics that demonstrate their value (quantitatively) to their administration. This lack of support from administration implies that lack of motivation or time for librarians to evaluate students evaluate students' skills.

In some libraries in the UK students have a tendency to be apathetic and bored and they lack understanding of what information literacy is. Further, there is a problem of training the librarians who should serve as instructors and instructional designers (Seimode and Vera, 2013).

When managing an IL programme in an academic institution one needs to be aware of the resources involved such as financial resources for buying the hardware and software, training of trainers (human resources), the physical resources such as the buildings, furniture and reliable connectivity (aselikem, 2016). Furthermore, Dadzie (2016) on a study on language use and social structure as an information literacy barrier, argues that extracurricular and civic activities in schools are rich environment for effective learning, but structural factors, often over looked by proponents of IL constrain students' opportunities for public participation. Such constraints are also akin to librarians with instructional roles in Africa where it has been discovered that several countries have accorded less importance to the IL programmes (Dadzie, 2016).

A study by Tshuma and Chigada (2018) on teaching information literacy for inquiry based learning discovered that in South Africa, Tanzania and Kenya some universities are hindered by lack of a policy for information literacy. In addition to poor infrastructure, insufficient resources (human resources and time) there is lack of efforts to collaborate with other university stakeholders.

A similar study by Tshuma et al (2018) on the challenges of IL programmes in Zimbabwe, established that the major problem is lack of support to librarians with instructional roles from the administration and top university management. This condition has created unstructured teaching of information literacy. Even though, the lessons are done on a 1:1 basis or in groups, there is no willingness to actively support and participate in the programme (such as a proposed new plan or policy) from the university stakeholders. University stakeholders are not participating in matters of IL because they consider it to be the library's responsibility. Consequently, there is lack of cooperation and collaborative support from teaching staff concerning library instructional services.

According to Jiyane and Onyancha (2010) in South Africa, despite several recommendations that have been made to management, librarians are faced with instructional role challenges such as lack of dedicated staff, the funds, e-laboratories and support. There is also minimal community engagement between LIS departments and university community stakeholders.

Ghana has reported challenges such as inadequate number of qualified staff to teach the course, lack of commitment in supporting information literacy programme, inadequate information on the subject and unwillingness of library staff to get involved (Dadzie, 2016).

Furthermore, Baro et al (2013) states problems found in Nigeria as lack of information on what to teach; lack of the commitment of the students; students' belief they know it all about information literacy; lack of existing guide on what to incorporate in the content of the information literacy programme; lack of collaboration among library staff and the faculty. Further, other problems were, lack of facilities, lack of understanding of the instruction programme, students' nonchalant attitude towards attending the sessions, and low acceptance of the online approach were identified as factors militating against librarians' efforts when advocating and providing the training.

Whitworth (2014) argues that if less effort to implement the IL instructions in academic libraries persists, learners would lack required IL skills outlined in the Alexandria Proclamation (2005) and Prague Declaration (2003) such as to identify, need, seek, locate and critically evaluate the

information. Dadzie (2016) is of the view that librarians must understand that IL skill is the fulcrum of education. These skills reinforce informed active participation in the information and knowledge society. Meanwhile, a study by Akakandelwa (2000) on assessment of user education at university of Zambia library discovered there were problems of lack of a policy, lack of professional library staff, lack of commitment from both library and management and university management. Other barriers were lack of publicity and awareness services, poor physical premises, inadequate library collections and information technology, and the unfriendly attitude by staff.

2.5 Opportunities for improvement

There are multiple opportunities for improvement in the IL practices and methods despite numerous challenges that librarians with instructional roles are facing around the world (Julien, 2018). Since the assessment and evaluation still remains informal, Tshuma et al (2018) suggest that librarians with instructional roles can conform to standardized methods and approaches outlined in the new ACRL Framework for Information Literacy for Higher Education. Ever since marketing of instructional opportunities also remains relatively informal, this area can be strengthened.

Meanwhile, as the only picture of instructional practices of librarians responsible for IL programmes still remains for undergraduate students as the main target population, this audience should be reached mainly through formal instead of informal (Tan and Merillat, 2013). Even though, only about half of libraries have formal objectives for instruction, which may hamper their ability to fully assess programmes or to have the data at hand to demonstrate the impact, there is an opportunity for libraries to ensure that students reach competency levels in information literacy by focusing much on the use of databases, search strategies, general library use, and use of the online catalog. While these topics reflect needed skills, they also represent the mainstay of instructional efforts. In assessing student learning and evaluating the effectiveness of instruction librarians should use a variety of strategies such as incorporating the IL programme in the school curriculum and collaborating with faculties.

Recognition and support are needed from administrators and non-librarians and academic librarians should continue to work to educate these stakeholders in the importance of information literacy and the usefulness of instructional partnerships with librarians. A study by Madete (2016)

on effects of information literacy skills on the utilization of library resources in academic libraries in Kenya established that there are various instructional methodologies and approaches that should be used for effective teaching and assessing of the IL skills of the students. These may include 1:1 instruction, interactive classes, online tutorials, as well as producing assignments around research situations. Lecturers can also be encouraged to use e-library resources and computers, Internet and online searching skills as part of the students' assignments.

Additionally, even though marketing of instructional opportunities remains relatively informal, this is an area that might need strengthening. According to Julien and Heidi (2018) even though assessing the quality of instruction and programmes are topics that academic librarians continue to struggle with, information competencies in the information age provides opportunities to incorporate IL into the academic curriculum and foster collaboration between faculties, students and librarians.

A comparative study by Lumande (2013) on the integration of information literacy skills into credit - earning programme at the University of Botswana, recommends that in order to promote effective IL education, several efforts need to be taken into consideration. One of them being, mainstreaming the IL into the curriculum. It should be firmly embedded in subject context, in the curriculum itself, because the need to acquire these skills only becomes meaningful to students in a curriculum context. Further, there is a clear need for discussion of IL instruction outside the library field. A more multi-disciplinary approach to IL research and instruction will create opportunities for more substantial, curriculum-integrated and long-lasting instructional experiences that will benefit students throughout and beyond their academic careers.

2.6 Summary of the reviewed literature

Although information literacy instruction programmes are alive and doing well in some university libraries around the globe, there is much work to be done before the integrated IL instructions across the curriculum becomes a standard practice. There are challenges such as motivating students to learn information literacy skills; assessing student mastery of concepts and skills; training librarians to serve as instructors and instructional designers; advocating the value of information literacy in an environment of competing literacies; and preparing students for business settings that demand a more specialized level of information fluency. There is a clear need for

discussion of IL instruction outside the library field. A more multi-disciplinary approach to information literacy research and instruction will create opportunities for more substantial, curriculum-integrated and long-lasting instructional experiences that will benefit students throughout and beyond their academic careers. The literature also noted the limited knowledge on the studies conducted to establish the IL instructional practices in academic libraries in Zambia and this study sought to investigate this problem.

Chapter three describes the methodology that was used in the research.

CHAPTER THREE: METHODOLOGY

3.0 Overview

This chapter covered the following areas: the research design, study population, sample and sampling procedure, research instruments, data collection procedure, validity of the instruments, data analysis and ethical issues. Newman (2019) perceives the concept of 'methodology' as the general research strategy that outlines the way in which a research project is to be undertaken and, defines the means or modes of data collection or, sometimes, how a specific result is to be calculated. The methodology also has described how data was collected or generated, and how it was analysed. Furthermore, the methodology section would help the reader to critically evaluate a study's overall validity and reliability.

3.1 Study design

This study was a cross-sectional survey method. According to Creswell & Creswell (2018) a survey design provides a quantitative or numeric description of trends, attitudes or opinions of a population by studying a sample of that population. Surveys are used to answer the questions who, what, where, and how much. Additionally, surveys are carried out with a view towards making statistical inferences about the population being studied, and this depends strongly on the survey questions used (Cooper and Schindler, 2014).

In this study, survey design was a means of gathering information that described the nature of the extent of data ranging from physical counts and frequencies to attitudes and opinions (Cooper and Schindler, 2014). This method was preferred in this study as it enabled the researcher to generalise the findings from a smaller group to a larger group. This approach was essential in this study as it also provided the researcher with statistics of the most common information literacy instructional practices and methods in university libraries in Zambia.

3.2 Population

The population of the study consisted of 62 universities registered under the Higher Education Authority (HEA). Cooper and Schindler (2014) defines a population as the group that is of interest to the researcher. It is a collection of objects, events or individuals having some common characteristics that the researcher is interested in studying. Creswell & Creswell (2018) states that

the elements which make up the population should be identical, either by living together in a defined territory or having a common nationality. In this case, the academic libraries that were studied belonged to a common group, that is, university libraries. The estimated population of university library professionals was 300 (LIAZ, statistics 2021).

The statistics of the registered universities in Zambia was obtained from the database at HEA. There are 9 HEI public universities in Zambia. The Higher Education Act No. 4 of 2013 defines a Public Higher Education Institution (HEI) as an HEI which is owned by the Government or a local authority and is financed out of public funds, with public funds having the meaning assigned to it in the Public Finance Act, 2004 (HEA, 2022). Meanwhile, there are 53 private HEIs in Zambia. The Higher Education Act No. 4 of 2013 defines a Private higher education institution as a higher education institution which is not established or maintained by the Government or a local authority out of public funds (HEA, 2022).

Breakdown by the university libraries per province was as follows – nine (9) were public university libraries, while 53 were private university libraries.

Table 1: Breakdown of University Libraries per province

Provinces	Private universities	Public universities
Lusaka	39	4
Copper belt	6	2
Central	1	2
Muchinga	0	1
Southern	5	0
Western	2	0
Total	**53**	**9**

Source: HEA statistics, 2021

3.3 Sample size and Sampling procedure

A sample is defined as a subset of the entire population which a researcher investigates and whose characteristics are generalized to the entire population (Cooper and Schindler, 2014). According to Creswell & Creswell (2018) the study of a population is not possible and it is also impracticable in any research work hence the need to undertake the sampling. In this study one head librarian from each university library was sampled giving an estimated sample size of 62 librarians.

3.4 Sampling

A sample of sixty-two head university librarians was selected as participants for the study and covered through census survey. In order to effectively recruit research participants from the identified research target group, one head librarian from each university library was purposively sampled because the researcher was intentionally sampling university librarians in order to investigate which among them had adopted good IL instruction practices and methods. According to Cooper and Schindler (2014) purposive sampling procedure enables a researcher to squeeze a lot of information out of the data that to be collected. This method allows a researcher to describe the major impact the findings would have on the population.

3.5 Data collection instruments

An online self-administered questionnaire was used to collect data on the existing information literacy instructional practices in university libraries in Zambia. The questionnaire developed by Julien et al (2018) was adapted and modified according to the need of the study. E-mails of university librarians were collected from the "Practicing librarians in Zambia" list published by the Library and Information Association of Zambia (LIAZ). The questionnaire was sent via e-mail attachment to Head Librarians who either responded to it or forwarded it to the librarian in-charge of information literacy training in their library, most of whom were assistant librarians, reference librarians, and ICT librarians for response.

A total of 62 questionnaires were distributed to 62 university libraries in Zambia starting from August to December, 2021 after which reminders were sent to librarians to respond to the study. The rationale of this type of data collection instrument was due to COVID-19 pandemic

restrictions. It was also ease of data gathering, minimal costs, automation in data input and handling, increase in response rates and flexibility of design.

In addition, the closed-ended questions reduced the possibility of obtaining ambiguous answers from respondents and enabled a researcher to obtain straight forward and uncomplicated information (Creswell & Creswell, 2018). The questionnaire applied anonymity as participants were able to complete the questionnaire in the absence of the researcher. On the other hand, open-ended questions allowed participants to provide answers in their own words. This allowed them to include other information that could have been overlooked on the closed ended questionnaire.

3.6 Validity and Reliability of the instruments

3.6.1 Validity Test

In order to determine construct validity, Pearson's correlation coefficient was used. Creswell and Creswell (2018) state that in quantitative studies Pearson's correlation is commonly used to verify the intensity of the existing linear association between variables and it measures the linear association between quantitative variables.

In this study the test is said to be reliable when correlation variables were significant at 0.05* level and highly significant when correlation variables were at 0.01** level. Based on the significant value obtained by the sig. (2 tailed) of 0.05 level, it can be concluded to item 1 was valid. Also based on the significant value obtained by the sig. (2 tailed) of 0.01 level, it can be concluded to item 2 was highly valid.

3.6.2 Reliability Test

The questionnaire was pre-tested on one public university (Mulungushi University) and one private university (Lusaka Apex Medical University). Thereafter, changes were made to the questionnaire, accordingly. The respondents were requested to comment on the following:

- The clarity of the questions contained in the instruments.
- To state according to their opinion whether or not the instruments had been organized in a logical order.
- To state the relevance of questions in the instruments, to the research topic.

- Also to comment on the length of the questions.

3.7 Data analysis

Cooper and Schindler (2014) define data analysis as a process of making meaningful and useful conclusions from bulky and jumbled pieces of information obtained during the course of one's investigation of the problem. Statistical Package for Social Sciences (SPSS) version 23.0 was used to analyse quantitative data while the qualitative data was sorted into categories of responses and generated themes from which interpretations and conclusions were made and drawn, respectively. SPSS software package was ideal because it gave detailed data analysis in terms of frequency, percentages and tables. The other reason for choosing SPSS was that it was readily available and easier to interpret data.

3.8 Ethical considerations

Ethics refer to the appropriateness of behavior in relation to the rights of those who become a subject of your work or are affected by it. This relates to moral standards that the researcher should consider in all research methods at all stages of the research design (Cooper and Schindler, 2014). Approval of the study proposal and permission to conduct this research was sought from the Directorate of Research and Graduate Studies at the University of Zambia (Humanities and Social Sciences Ethics Committee), REF. NO. HSSREC-2021-OCT-011, and also introductory letters were obtained from the Institute of Distance Education (IDE) to allow easy identification with authorities in various universities. Furthermore, the researcher ensured that written consent was obtained from everyone who was required to participate in the research so as not to frighten the participants. The participants were protected at all times by not reviewing their identity. Permission was sought from University Librarians before data collection was conducted.

3.10 Summary

This chapter has presented methodologies that were used in carrying out this study. In brief, the study used a quantitative method based on descriptive research design. Data was collected through a cross sectional survey method. The population of the study contained 62 HEA recognized universities (9 public and 53 private) in Zambia. A sample of 62 head librarians was selected as participants for the study. A self-administered online questionnaire was used and data was

analysed by use of SPSS. The following chapter four presents the results of the study and associated discussions.

CHAPTER FOUR: PRESENTATION OF THE RESULTS

4.0 Overview

This chapter presents the findings of the study which investigated the information literacy (IL) instructional practices in public and private university libraries in Zambia. Sixty-two (62) questionnaires were distributed to a community of university libraries and sixty (60) were returned representing a ninety-seven percent (97%) response rate. The chapter is divided into the following sections; Section 4.1 presents the demographic characteristics of respondents while section 4.2 presents the current IL instructional practices in university libraries in Zambia. Section 4.3 covers the extent to which IL instructional practices are informed by the new ACRL Framework for Information Literacy for Higher Education and Section 4.4 looks at the key challenges faced by university libraries in the instructional work. Finally, the suggestions for improvements in the IL practices are presented in Section 4.5.

The responses were based on the research questions which were correlated to the study in question.

4.1 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The participants were requested to indicate their gender, level of education or qualification, type of the university, job title and programmes offered in universities (Table 2). Results show that 41 (68.3%) were undergraduate degree holders, 14 (23.3%) were master's degree holders, 4 (6.7%) were diploma holders and one had a PhD qualification. The study also revealed that 51 (85%) of respondents work in private universities, while 9 (15%) work in public universities. The study shows that majority of respondents were Bachelor's degree holders and one respondent had a Doctorate in Library studies. The HEA Act No.13 of 2021 states that in order for one to qualify as Head Librarian they should be holders of a minimum qualification of Master's degree level (HEA, Act. 2021). Participants were also asked to indicate a particular discipline or subject area which their library focused on. The majority 17 (28%) focus on business and social science disciplines, while only one focus on hospitality and tourism disciplines.

Table 2: Demographic characteristic

Variable	Category	Frequency	Percentage
Gender	Female	33	55
	Male	27	45
	Total	**60**	**100**
Level of Education or Qualification	PhD	1	1.7
	Master's degree	14	23.3
	Undergraduate degree	41	68.3
	Diploma	4	6.7
	Total	**60**	**100.0**
Type of university	Public University	9	15
	Private University	51	85
	Total	**60**	**100.0**
Job Title	Chief librarian	8	13.3
	Librarian	42	70
	Acting librarian	2	3.3
	Assistant librarian	8	13.3
	Total	**60**	**100.0**
Programmes of study offered	Education, Sciences, Humanities and Business.	11	18.3
	Business and Social Sciences	17	28.3
	Medical and Health Sciences	15	25
	Teacher Educational Courses	5	8.3
	Leadership and Religious Courses, humanities, social sciences	2	3.3
	Theology Studies and Social Sciences	4	6.7
	Management studies and Business courses	3	5
	Hospitality and tourism programmes	1	1.7
	Business and theological courses	2	3.3
	Total	**60**	**100.0**

4.2 Existing information literacy instructional practices.

This section assessed the existing information literacy instructional practices in university libraries in Zambia. In order to find out issues surrounding existing instructional methods, clients group of focus, marketing, instructional objectives, adoption of the new framework for information literacy for higher education into instruction, assessment and evaluation, the of relationships with faculties and administrators and challenges faced by librarians in their IL instructional works, respondents were first asked to indicate if their libraries had written IL instructional objectives. The results of the study indicate that 41 (68.3%) did not have written objectives and policy, while 19 (31.7%) indicated that they had written objectives. This implies that majority of university libraries in Zambia are not offering formal IL instructions since they do not have statement of objectives and a written policy for the IL programmes. See figure 2 below.

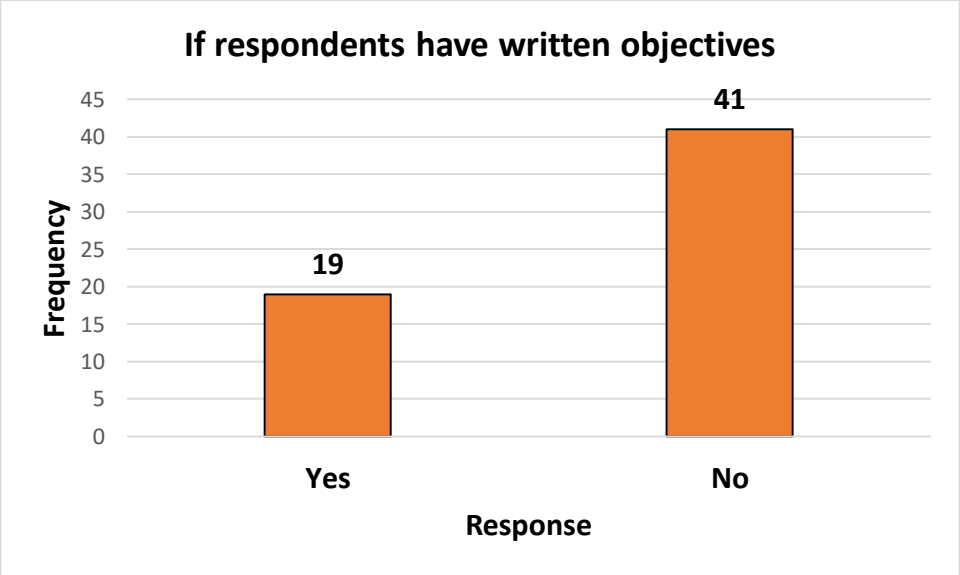

Figure 2: If respondents had written instructional objectives

Respondents were also asked what format of information instruction was conducted in their library. The majority 49 (81.7%) indicated that they conducted informal IL instruction and 11 (18.3%) conducted formal IL instruction.

Respondents who conducted formal instructions were also asked if informal instructions were also conducted alongside formal instructions. Results are in figure 2 below.

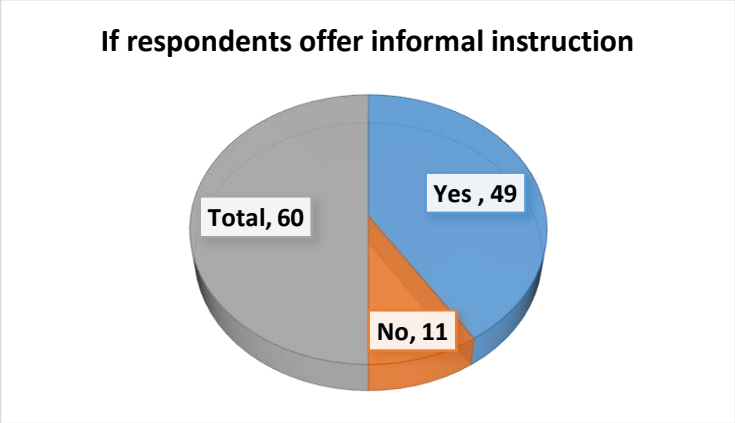

Figure 3: If respondents offer informal instructional programme

When further asked who had primary responsibility for IL instruction (and allowed to "check all" that applied to them), minority of respondents put full time instructional librarians at the bottom of the list with 6 (10%), while 53 (88.3%) of responses used other library staff members to conduct the IL instructions. Reference/public service librarians were also seen as responsible for IL instruction by one respondent. It can therefore be deduced that majority 53 (88.3%) of respondents who conducted IL instructional classes did not have full-time skilled instructors and a department for information literacy instruction programme. The findings are presented in table 3 below.

Table 3: Instruction staffing

Staff	Frequency	Percentage
Full time instruction librarian	6	10
Other library staff	53	88.3
Reference/ public service librarians	1	1.7
Total	**60**	**100**

In terms of the proportion of time spent on instruction at the start of an academic year for staff involved in IL instruction (other than full-time instruction staff), figure 4 below shows that minority 7 (11.7%) of respondents spent more than 75% of their time on instruction classes, while

the majority 25 (41.7%) spent less than 50% of time on IL instruction. This shows that majority of university libraries in Zambia do not spend enough time on IL instructions at the start of an academic year due to lack of compulsory library orientations to first year students.

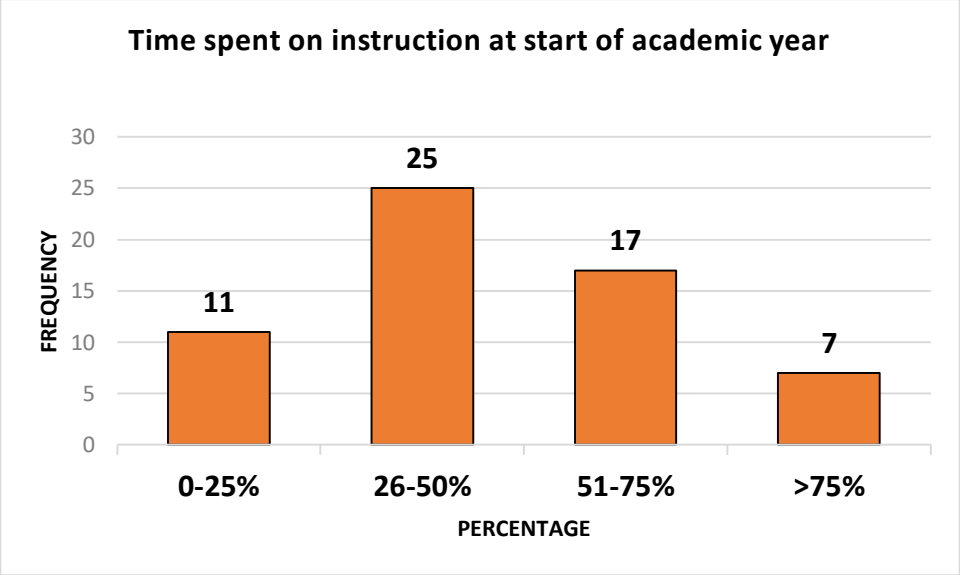

Figure 4: Time spent on instruction by staff at start of an academic year

With regard to the proportion of time spent on IL instruction during the academic year for those staff involved in instruction (other than full-time instruction staff), respondents who indicated that they spent less than 25% of time on instruction were 41 (68.3%), while 14 (23.3%) spent between 51-75% of time on instruction and lastly those who spent more than 75 percent of time on instruction were at 5 (8.3%). This shows that library staff do not spare enough time for post library orientations. See figure 5 below.

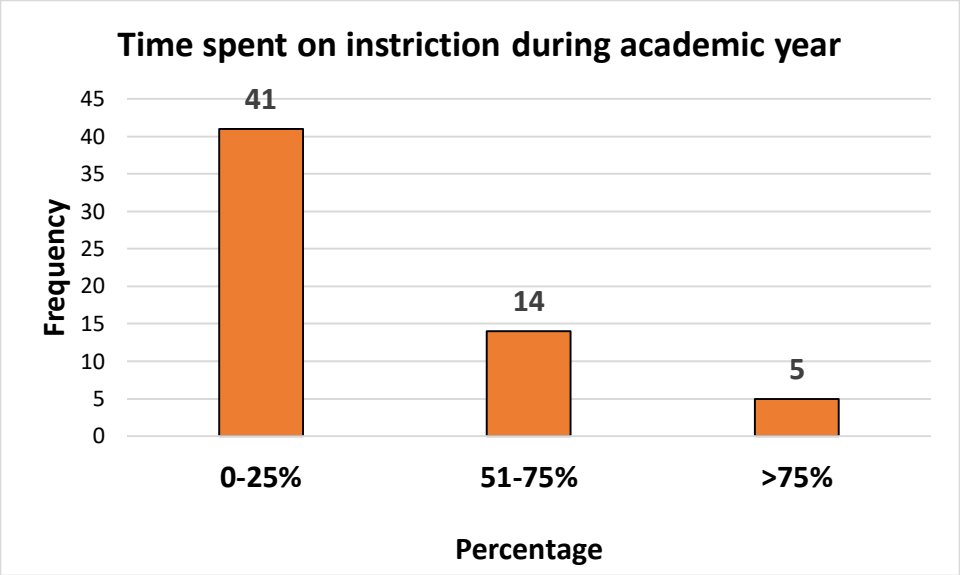

Figure 5: Time spent on instruction during academic year

The study further endeavored to establish the type of tools respondents use for IL instruction. Table 4 below shows that 20 (33%) of the respondents used library classification system (OPAC catalogs) another 20 (33%) only conducted library orientations, 3 (5%) used internet tools and 8 (13.3%) preferred printed materials over e-books.

Table 4: Instruction tools

Tools	**Frequency**	**Percent**
Audio Visual Materials	4	6.7
Library Classification Systems (OPAC, Catalogs)	20	33.3
Online Databases/Library use in general	20	33.3
Other Print references	8	13.3
Scholarly Communications	2	3.3
Internet/World Wide Web	3	5
Print Indexes	3	5
Total	**60**	**100**

The researcher further assessed the methods of existing IL instruction available in libraries. Most respondents 14 (23.3%) reported that they primarily conducted group instructions, 10 (16.7%) conducted hands-on instruction in the computer lab, self-paced library tours were conducted by 8 (13.35%) respondents, while the lowest on the list is represented by 2 (3.3%) who delivered instructions through library guides, handouts and websites. Results on the methods of instruction are provided in table 5 below.

Table 5: Instruction methods

Methods	Frequency	Percent
Group instructions	14	23.3
Hands on instructions	10	16.7
Indivisualised instructions	3	5
Self-paced library tours	8	13.3
Web tutorials	6	10
Social media/library guides	4	6.7
Video recordings (such as Youtube videos)	4	6.7
Lectures/demonstrations in subject classes	4	6.7
Noncredit course	5	8.3
Library guides/handouts web format	2	3.3
Total	60	100

When asked about the category of students which libraries focused on for IL instruction (and to 'check all' that applied to them). Results show that 35 out of 60 respondents representing 58.3% focused on first year students, whereas 25 (41.7%) focused on both undergraduate and post graduate students. See figure 6 below.

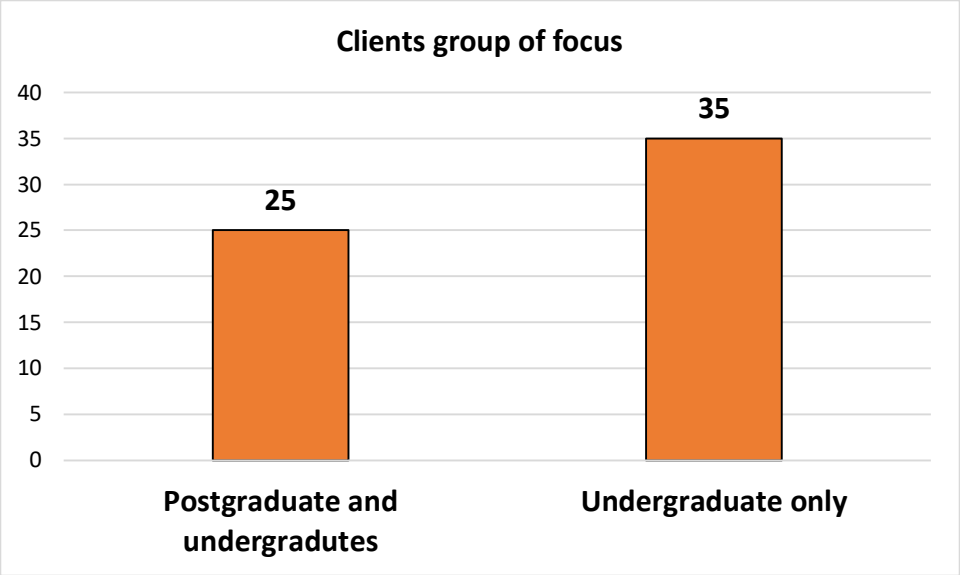

Figure 6: Group of students targeted for instruction

The researcher also assessed the proportion of students that were reached in the IL instruction programme. Only one respondent estimated to have reached between 76-100% of undergraduates, while 26 (43.3%) reached between 50% -75% of undergraduates and 18 (30%) of respondents could not determine an estimate number of students whom they reached despite offering both formal and informal IL instruction. Figure 6 below shows the findings.

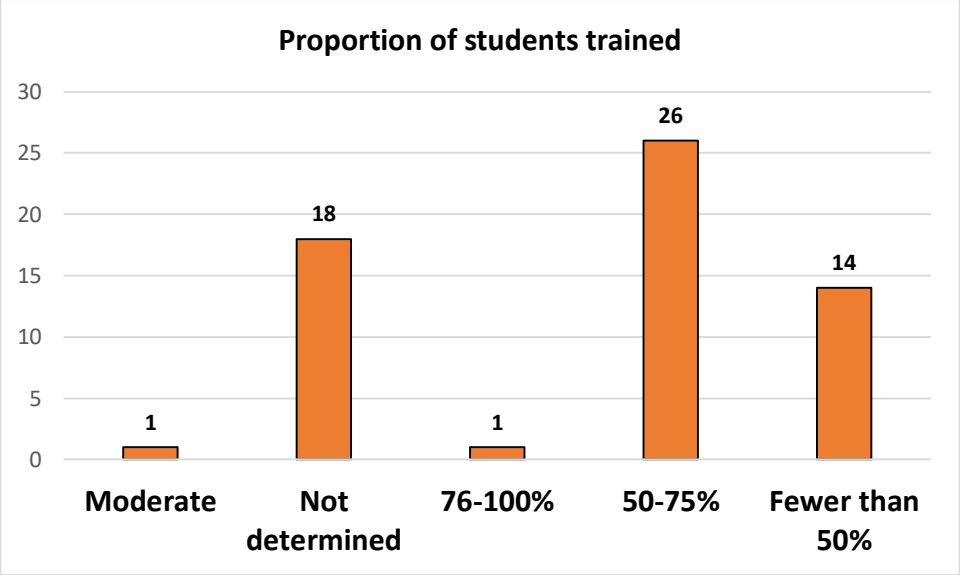

Figure 7: Proportion of students trained

Regarding the topics libraries covered, 14 (23.3%) were teaching students how to locate physical materials in the library, 10 (16.7%) were teaching students how to find and retrieve information from various electronic sources such as the internet, another 10 (16.7%) were teaching students about the general structure of offline and online databases. This shows that students are not being exposed much to the latest technologies such as digital libraries as evidenced by librarians' concentration on general library use with a bias towards physical materials in the library. Results are detailed in table 6 below.

Table 6: Instruction topics

Topics	Frequency	Percent
Print indexes or abstracts	1	1.7
Audio visual materials	2	3.3
World Wide Web	10	16.7
Print reference materials	14	23.3
Structure of Databases	10	16.7
Bibliographic management tools	3	5
Open access resources	3	5.0
Catalog/OPAC	8	13.3
Electronic documents	4	6.7
Citation metrics	2	3.3
Search strategies (such as Boolean)	3	5.0

The study further sought to find out the instructional objectives which were being used in libraries. Most respondents 19 (31.7%) reported that their primary IL instructional objective was to teach students how to find information from various sources in databases, followed by 16 (26.7%) of respondents who reported that their objective was to teach students how to locate physical materials in the library. 10 (16.7%) indicated that their objective was to teach students how to manage information and the lowest number 2 (3.3%) of respondents said their objective was to teach students how to critically evaluate the quality and usefulness of information which they were retrieving. A complete list of items is presented in table 7 below.

Table 7: Instructional objectives

Objectives	Frequency	Percent
Teach to critically evaluate the quality and usefulness of information	2	3.3
Teach students general strategies	3	5
Teach students how to find information in various sources	19	31.7
Teach students how to locate materials in the library	16	26.7
Teach students how databases in general are structured	7	11.7
Teach students how to manage information	10	16.7
Teach awareness of technological innovation	3	5
Total	**60**	
Are you able to meet instructional objectives?	**Frequency**	**Percent**
Yes	37	61.7
No	23	38.3
Total	60	100

When asked if respondents were effectively meeting their IL instructional objectives. The results reveal that slightly more than half 37 (61.7%) of the respondents felt that they were meeting their existing IL instructional objectives, 23 (38.3) did not feel that they were meeting their objectives effectively.

When participants were asked how they assessed students' comprehension, learning needs and academic progress during IL lessons, unit or course, 29 (48%) of the respondents indicated that they assessed student learning primarily through formative assessment during class sessions,

informal faculty feedback 10 (16.75%) and 10 (16.7%) practical activities integrated into the course. Table 8 below presents the results on the mode of assessing instruction lessons.

Table 8: Mode of assessing the instruction lessons

Assessment	Frequency	Percent
Through information literacy assignments	2	3.3
By comparing pre- and post-instruction test results.	2	3.3
Through student self-assessment	2	3.3
Through citation analysis in course assignments	5	8.3
Faculty feedback	10	16.7
Through questions and activities integrated into course assignments and exams	10	16.7
Formative assessments	29	48.3
Total	**60**	**100**

The participants were also asked if they were fully or partially funded or supported by library administration in their respective libraries. Out of the 60 respondents, 59 reported that they received funding for library activities. However, in terms of the level of support towards the IL instruction programmes, most respondents 29 (48.3%) felt that they received moderate support, 14 (23.3%) indicated that they received full support and 13 (21.7%) received very little support. Table 9 below shows the level of support received from the library administration.

Table 9: Level of support from university administration in the instruction work

Funding for instruction	**Frequency**	**Percentage**
Yes	59	98.3
No	1	1.7
Total	**60**	**100**
Level of Support	**Frequency**	**Percentage**
Very little	13	21.7
Moderate	29	48.3
Full support	14	23.3
Non	4	6.7
Total	**59**	**100**

In terms of promoting the IL instructional programmes, the study found that publicity was informal: results in table 10 below show that 30 (50%) used notices or letters, 11 (18.3%) made direct personal contacts with faculties or departments, 7 (11.7%) used social media such as WhatsApp, 6 (10%) used email and another 6 (10%) publicized instructions at departmental meetings.

Table 10: Mode of promoting the instruction programmes

Mode of publicity	Frequency	Percent
Email discussion lists	6	10
Departmental meetings	6	10
Social media	7	11.7
Personal faculty contact	11	18.3
Notices	30	50
Total	**60**	**100**

4.3 The extent to which instruction is informed by the new ACRL framework for information literacy for higher education

The study also revealed that librarians seldom or never offered IL instructions within the standards outlined in the framework for information literacy for higher education. When asked to establish the extent to which their IL instruction programme was informed by the new *framework* (and to 'check all' that applied to them), majority of the respondents 44 (73%) reported that the *Framework* has had no influence on their instructional practices, while 7 (11.7%) said it has had minor influence and 9 (15%) indicated that it has had a significance influence. It would be seen from the result that conducting the instruction which is not informed by the framework is an indication that the IL instructional practices in university libraries in Zambia are largely informal. See figure 7 below.

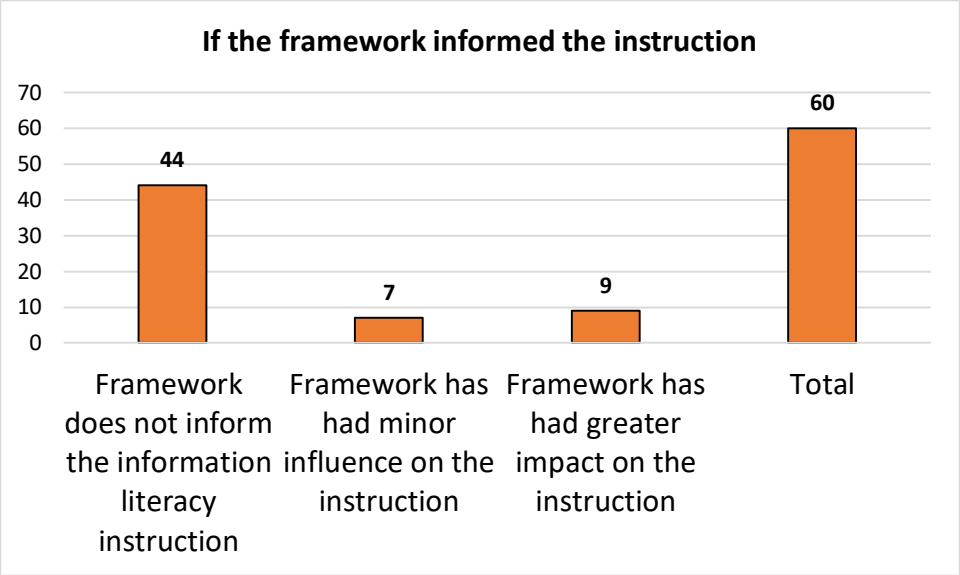

Figure 8: the extent to which information literacy instruction is informed by the framework for information literacy for higher education.

4.3 Challenges faced in instructional roles

In order to learn more about the hindrances librarians faced in their instructional work, majority 39 (87%) of the respondents indicated that the information literacy education programme not being embedded into school curriculum as a full course and credit bearing made it not being recognized as an important aspect of the university. 34 (76%) said not having a dedicated department to spearhead the information literacy education programme posed a problem to their instructional work, 32 (71%) indicated that they did not have modern information technology (IT) facilities and classrooms where to conduct hands-on sessions, 30 (67%) reported that compulsory library orientations which was only done once in a year negatively affected the instruction lessons, 27 (60%) said that the number of trained instructional librarians to teach information literacy courses was not adequate and 21 (47%) felt that insufficient time allocated to the academic timetable for information literacy lessons was one other challenge.

From the highlighted challenges, it would basically entail that university libraries in Zambia are not fully serving their complimentary purposes, that is, to support the curriculum and to support the research of the university faculty and students. Table 11 below presents the results.

Table 11: Challenges to instructional practices

Challenge	Frequency	Percentage
Information literacy education programme not being part of university curriculum as a full course and credit bearing.	39	87
Lack of a dedicated department to spearhead the information literacy education programme.	34	76
Lack of modern IT facilities and classrooms where to conduct hands-on sessions.	32	71
Lack of compulsory library orientations to students, which was done once in a year.	62	67
Lack of trained librarians to teach information literacy course.	27	60
Insufficient time allocated for instruction programme.	21	47

4.4 Opportunities for improvement

Regarding the question of improvements in the instructional practices, respondents felt that the challenges they encountered could be mitigated by the following suggestions. 39 (87%) felt that the information literacy education should be introduced in the university curriculum as a full course and credit bearing, 37 (82%) stated that library orientation should be made compulsory to students and should be done continuously and 31 (69%) felt that more librarians should be trained on how to teach information literacy courses. Meanwhile, 30 (67) suggested the availability of

modern IT equipment and computer labs for conducting hands-on sessions, 28 (62%) said sufficient time should be reserved on the academic timetable towards the instruction classes, 27 (60) suggested credit bearing information literacy education assignments to encourage students' attendance in the instruction classes and 21 (47%) said there should be a department to coordinate instruction programmes.

Table 12: Opportunities for improvement

	Frequency	**Percentage**
Information literacy education should be introduced into universities' curriculum as a full course and credit bearing.	39	87
Library orientations should be made compulsory to new students and should not be done once in a year.	37	82
Good number of librarians should be trained to teach information literacy courses.	31	69
There should be IT equipment and classrooms where to conduct hands-on sessions.	30	67
Adequate time should be allocated towards information literacy education.	28	62
Credit bearing information literacy education assignments should be given to avoid students' poor attendance.	27	60
A department for information literacy education should be created.	21	47

4.5 Summary of the chapter

The study has brought out the fact that information literacy instruction support in libraries is low to non-existent and that intervention is required to redress this situation. Staffing, written policy, objectives, time spent on instruction, pedagogical methods and tools used, kind of topics, mode of assessment, level of support and promoting or marketing of the instructions all need to be taken into consideration.

Overcoming the challenges in both conducting of the IL instructions by libraries and the support to librarians is important. Suggestions of having a written policy for instructions is the first step. The researcher believes that the suggestion would be an ideal to university libraries in Zambia as they would earn confidence from administrators of universities on the importance of instructions. The study has severally shown that maximum utilization of library resources is critical to university education especially in this information age where emphasis has been placed on information literacy as a lifelong skill. The following chapter five presents the discussions of the results.

CHAPTER FIVE: INTERPRETATION AND DISCUSSION OF THE RESEARCH FINDINGS

5.0 Overview

This chapter discusses the findings from a survey on information literacy (IL) instructional practices in university libraries in Zambia as presented in chapter four. The chapter is divided into four parts; section 5.1 describes the information literacy instruction, section 5.2 discusses the existing IL instructional practices, section 5.3 discusses the extent to which existing IL instructional programmes are informed by the ACRL Framework for Information Literacy for Higher Education, section 5.4 discusses the key challenges faced by librarians in their IL instructional role and section 5.5 discusses the opportunities for improvement in the IL instructional work. Lastly, a conclusion is drawn and recommendations made for the best IL instructional practices in section 5.6.

The study sought to answer the following research questions:

1. What are the existing IL instructional practices in university libraries in Zambia?
2. To what extent does the ACRL Framework for Information Literacy for Higher Education inform the existing IL instructional practices in university libraries in Zambia?
3. What are the key challenges faced by university librarians in their IL instructional roles?
4. What are some of the opportunities for improvement in IL instructional practices?

In discussing the findings, the chapter draws on other studies and their findings to inform the study.

5.2 Existing information literacy instructional practices

5.2.1 Instruction objectives

The first research question was to find whether university libraries had written instructional objectives according to study findings in chapter four. The study found that majority of the respondents, 41 (68.3%) needed to have statement of objectives and a written policy for IL instruction programmes to be conducted effectively. The findings are similar to the study by Mugwisi (2015) who discovered that majority of university libraries in Zimbabwe and South Africa did not have information literacy policy.

However, the findings slightly differ from a study by Julien et al (2018) who surveyed the information literacy instructional practices in USA academic libraries. The study discovered that academic libraries in America conducted their IL instructions based on written IL policy.

5.2.2 Instruction staffing

It was discovered that Librarians felt they did not have skilled manpower to handle IL programmes in an efficient and effective manner. The findings showed that only 6 (10%) university libraries had full time instructional librarians while 53 (88.3%) university libraries used other library staff members to conduct the IL instructions. Reference/public service librarians were also seen as responsible for IL instruction in one university library. This is similar to a study by Baro et. (2013) who discovered that in most Nigerian academic libraries IL programmes failed to run smoothly due to lack of specialised and trained library staff.

It can be deduced that majority 53 (88.3%) of university libraries in Zambia do not have full-time skilled IL instructors. This is an indication that the problem emanates from the lack of having established Information Literacy Departments or units in the institutions. Julien et al. (2018) warns that the IL instruction should be run by skilled library instructors with knowledge in teaching methodology. Having skilled library instructors in an academic library help to ensure that needed content is covered. They can also avoid poor teaching approach during instruction classes.

5.2.3 Time spent on instruction at the start of academic year and during the academic year

The study further established that, out of the proportion of time spent on instruction at the start of an academic year for staff involved in IL instruction (other than full-time instruction staff), only 7 (11.7%) of the university libraries spent at least 75% of their time on instruction classes while the majority 25 (41.7%) spent less than 50% of their time on IL instruction. This shows that the majority of university libraries in Zambia do not offer compulsory library orientations to the new students both at undergraduate and postgraduate levels. These findings are consistent with those of Pelemo (2021), which noted that most students missed out on library orientations because they often become very busy with course registrations. In addition, library staff are not committed to conduct orientations so that students may become aware of the library services and the materials

found in the library. Students should undergo library orientations so that they know relevant resources to their studies.

The study further observed that 41 (68.3%) of the university libraries studied spent less than 25% of time on instruction, while, 14 (23.3%) university libraries spent between 51-75% of time on instruction and only 5 (8.3%) university libraries spent more than 75 percent of time on instruction. This indicates that library staffs do not spare adequate time for post library orientations.

Meanwhile, this study differs with findings by Julien and Heidi who discovered that in USA university and college libraries spent enough time on IL lessons so that students could become lifelong learners. Therefore, students can easily acquire the information related to their general educational and professional formation. Dorvlo (2016), emphasizes that the primary purpose of post library orientation is to encourage students to become conversant with research.

5.2.4 Instruction tools

The study further endeavored to establish the type of tools used in university libraries during the IL lessons. It was discovered that universities libraries needed to utilise various tools of instruction to enhance students' capacity to do quality assignments. The results show that 20 (33%) of the university libraries used library classification system (OPAC catalogs), another 20 (33%) only conducted library orientations, 3 (5%) used internet tools and 8 (13.3%) preferred print materials over e-books and audio-visual materials. The print materials commonly used include books, periodicals, newspapers and reference books. These findings are similar to the study by Rafique and Khan (2020) who discovered that at university of Lahore in Pakistan, students were only walked through the library facilities during orientation without properly exposing them to necessary IL tools they could use when searching for information. However, these findings differ with a study by Hepworth and Walton (2009) who discovered that academic libraries in the United Kingdom adequately provided students with required IL tools.

It scan be deduced that libraries in Zambia are too limited to traditional librarianship even when technology has advanced. Students are not being exposed to the latest prescribed and recommended reading online materials.

5.2.5 Methods of instruction

The study established that various methods of instructions are not available in the existing instructional practices in university libraries. It was observed that university libraries are only limited to group instructions, hands-on instruction in the computer lab, self-paced library tours and guides, handouts and websites. However, this study result is contrary to the findings by Julien et al. (2018), who reported that university libraries in the USA and Canada used various methods of instructions. Among them were course-ware, video recordings, self-paced library tours, work book programmes, lecture demonstrations in subject classes, essay assistance (workshop), additions to course notes for distance students, social media, flipped classrooms, embedded librarians, credit course, non-credit course and posters. This shows that university libraries in the two countries use various instructional tools for their instructional programme because of their robust investment and commitment towards the IL programme.

5.2.6 Students targeted for the instruction

Regarding the category of students targeted in the IL instruction, 58.3% university libraries targeted only fresher students while the rest of university libraries offered IL instructions to both undergraduate and postgraduate students who are already at senior level. Students should only attend IL lessons in their first year of study either at undergraduate or postgraduate. The lessons should be offered throughout the academic period of study. This process can enhance students' information search skill.

This study also established that a small number of students is being reached by the IL instruction programme. The study found out that only one university library estimated to have reached between 76-100% of undergraduates in the IL programme. Other university libraries could not determine an estimate number of students whom they reached despite offering both formal and informal IL instruction. This study is in consonant with a study by Kimani (2014) who conducted a study in Kenya on information literacy skills among incoming first-year undergraduate students at the Catholic University of Eastern Africa in Kenya. It was discovered that offering IL lessons begun and ended at undergraduate level alone, hence very few students could be reached which in turn affected their quality of retrieving right information as they progressed in their studies.

It was further discovered that university libraries needed to be keeping record of students being reached in the IL instruction. This can help them with assessing and evaluating the impact of IL lessons being offered to learners.

5.2.7 Instruction topics

Participants were further asked to indicate the kind of topics covered in the lessons plan. The study found that university libraries concentrate much on teaching students on how to locate physical materials in the library, 14 (23.3%) and retrieval of information from various electronic sources, 10 (16.7%) such as the internet. Other available instructional topics include the general structure of offline and online databases 10 (16.7%). The findings are in congruent with Yearwood, Forsberg and Rosenberg (2015) that there should be various approaches and combinations of methods of IL instructions which can be conducted depending on the needs of the university or institution of learning.

However, in Zambia it can be deduced not all students are being exposed much to the latest technologies such as digital libraries as evidenced by librarians' concentration on general library use with a bias towards physical materials in the library. University libraries should invest in latest technologies so that they can have a wide variety of instructional topics.

5.2.8 Mode of assessing the instruction lessons

The study examined the way university libraries assessed students' comprehension, learning needs and academic progress during IL lessons, unit or course. The findings of the study show that 29 (48%) of university libraries assessed student learning through formative assessment during class sessions and informal faculty feedback. The rest of the institutions assessed their students through practical activities integrated into the course. The results of this study is synonymous with findings by Madete (2016) who discovered that in university libraries in Kenya, the assessment and evaluation of IL instruction was largely informal.

In order to command a good number of student attendance in IL instruction classes, university libraries should also adopt summative assessment. The main purpose of summative assessment is to evaluate student learning at the end of each instructional unit. This should include mid-semester exam, test or final project.

5.2.9 Level of support from university administration in the instruction work

Consistent with other studies, difficulties in the implementation of the existing IL instruction programmes is associated with funding and administrative support. Out of 60 institutions, 59 reported receiving funding but the funds are inadequate to support all library activities which includes IL programmes. Meanwhile, in terms of the level of support towards the IL instruction programmes, most respondents 29 (48.3%) felt that they received moderate support, 14 (23.3%) indicated that they received full support and 13 (23.3%) received very little support. This study is congruent to the findings by Dadzie (2016) who reported that in Ghana, one among the challenges towards IL programmes was inadequate funding and minimal administrative support from university management. However, a study by Julien (USA) which assessed the level of support discovered that all the academic 600 libraries that were surveyed in USA indicated that they received adequate support in their instructional roles and other library activities. Lumande (2016) stresses the need to fund academic libraries. He is of the view that proper budget allocation towards academic libraries can create a conducive environment for the library instruction programmes.

5.10 Mode of promoting the instructions

In terms of promoting the IL instructional programmes to students and the faculties, the study found that publicity was equally informal and weak. 30 (50%) institutions used notices or letters, 11 (18.3%) made direct personal contacts with faculties or departments, 7 (11.7%) used social media such as WhatsApp, 6 (10%) used email and another 6 (10%) publicized instructions at departmental meetings.

The study is similar to findings by Tshuma and Chigada (2018) on analysing information literacy practices at selected academic libraries in Zimbababwe. It was discovered that there was less promotion and marketing of IL instruction programmes across academic libraries in university libraries in Zimbabwe. The possible explanation could be that perhaps library staff feel lazy to vigorously collaborate with faculties and teaching staff. Library staff should create awareness to show that a librarian is very important in the life of a learner.

5.11 The extent to which existing IL instructional programmes are informed by the new ACRL Framework for Information Literacy for Higher Education.

This study also discovered that librarians needed to teach students IL skills according to the standards outlined in the *framework* for information literacy for higher education. Majority of university libraries, 44 (73%) indicated that the *Framework* has had no influence on their instructional practices, while 7 (11.7%) said it has had minor influence and 9 (15%) indicated that it has had a significance influence. This could be attributed to the lack of IL policy in most university libraries which has contributed to the lack of recognition of IL programmes by university faculties. The results are not congruent to a study conducted by Julien et. (2018) to examine the extent to which IL instructional programmes were informed by the ACRL Framework for Information Literacy for Higher Education in academic libraries in America and Canada. It was discovered that majority of academic libraries offered IL programmes informed by the ACRL framework.

5.12 Major challenges in the existing information literacy instructional programmes

University libraries in Zambia faced various challenges in their IL instructional roles. The study revealed some of the major challenges which they faced.

5.12.1 Lack of information literacy programmes across the curriculum

This study has established that university libraries in Zambia find it very difficult to assess and evaluate the IL programmes on their students since the programme is not course-integrated with university courses. The majority 39 (87%) of the respondents indicated that the information literacy education programme not being embedded into school curriculum as a full course and credit bearing made IL to be unrecognisable as an important aspect of the university. Consequently, collaboration with faculties is impossible because lecturers consider instructions as the responsibility of librarians alone. This study is different from a study by Julien et al (2018) who discovered that in USA academic libraries embedded IL programmes into university curriculum perspective with content-based courses and assignments.

5.12.2 Non-availability of information literacy instructional unit or department

The study found that majority of the participating universities needed to have a unit or department for effective coordination of the IL programmes. It was discovered that only certain public universities 34 (76%) had units for IL instruction. However, they are not also functional due to lack of commitment from library staff. This study is similar to a study by Dadzie (2016) who reported that majority of university libraries in Ghana did not have a unit for instructions, separate from other library services and there was no one to coordinate the planning, organizing, staffing and budgeting for IL instruction programmes. As Jiyane and Onyancha (2010) points out that to effectively run the IL instruction programme, a unit for instructions within the library premises should be established. The same should be well-funded and have skilled library instructors.

5.12.3 Lack of information technology facilities

The study has revealed that ICT infrastructure, teaching facilities (such as computer laboratory with Internet connectivity) and teaching materials were inadequate for the effective IL instruction programmes, 32 (71%) indicated that they did not have modern information technology (IT) facilities and classrooms where to conduct hands-on sessions. These findings are similar to the study by Ansari and Zuberi (2010) on use of electronic resources among academics at the University of Karachi in Pakistan. It was discovered that librarians experienced difficulties in preparing IL instructional modules for either small or large groups of students because a library did not have information materials stored in electronic media format such as databases and computer laboratory where students and other library users could access that information.

It can be deduced that in Zambia, inadequate support from administrators in terms of funding the IL programmes has contributed to the inadequate number of teaching aids such as print indexes or abstracts, audiovisual materials, CD-ROM resources, library classification systems, catalog/OPAC, internet/World Wide Web and electronic documents.

5.12.4 Lack of compulsory post library orientations programmes

It was further established that majority of university libraries in Zambia conducted library orientations once in a year to few available new students, 30 (67%) reported that compulsory library orientations which was only done once in a year negatively affected the instruction lessons. There was no post library orientation programmes. Additionally, time spent on orientation at the

start of academic year is not sufficient because a lot of students, especially first years missed out. Time spent on orientation during the academic year is also inadequate because most students are busy attending to classes hence they do not have time for orientation since the IL instruction programme is not recognized on the academic calendar. These study results are similar to a study by Selikem (2016) who discovered that in university libraries in Ghana, students, researchers and other information users were not usually oriented on the library they were using and there was a possibility of them not being aware of the information resources they needed the most during research work. It can therefore be deduced that commitment from librarians to convince faculties to spare time for library orientations is not there at all.

Pelemo et al (2020) is of the view that the problem to facilitate publicity and awareness of library resources does not come from lecturers and management but from library staff. The study concluded that IL instruction providers are not reactive and proactive in the provision of IL instructional lessons, while compulsory library orientations are not offered always.

5.12.5 Lack of staffing and staff training for information literacy instructors

It has been noted in the study that majority of library staff lacked knowledge about IL instruction programmes particularly the content of what they should teach about. This is because they have never undergone a formal training in teaching methodology for the IL instructions, 27 (60%) said that the number of trained instructional librarians to teach information literacy courses was not adequate because they don't even undergo in-house trainings to increase the understanding of IL instruction programmes among library staff. The results are similar with a study by Seimode (2013) who found that in Nigeria library staff who aspired to become IL instructors did not acquire the knowledge in course design, research methodology and teaching skills for them to become effective instructors.

5.12.6 Limited time allocation for information literacy instruction programme

Time allocation towards information literacy programme was another challenge mentioned by the respondents. This mainly had to do with lack of IL instruction programme to the academic calendar. Hence, time for planning and strategizing the implementation of IL instruction programmes was not there. 21 (47%) of the respondents felt that they had insufficient time

allocated on the academic timetable for information literacy lessons. Further, libraries that were found to have time for IL instruction relied on a one-on-one arrangement with their students. These findings are in similarity with a study by Tshuma and Chigada (2018) which discovered that in Zimbabwe, academic libraries were not always given enough time and attention to conduct effective instructions. Mainly, due to the lack of integrating the IL instruction into the curriculum and faculty courses. Hence, IL instruction is not recognized among academic programmes. However, the findings of this study is contrary to those from South Africa by Chigada et al., (2018) which revealed that in South African universities, IL instructions were integrated into the university curriculum as a full credited bearing course.

Therefore, there should be always enough time for library staff to conduct effective information literacy lessons because the IL instruction programmes are part and parcel of the academic calendar.

5.13 Opportunities for improvement

Even though university libraries in Zambia faced numerous challenges in an attempt to implement IL programmes, they perceived an opportunity for improvement could be there. 39 (87%) felt that the information literacy education should be introduced in the university curriculum as a full course and credit bearing, 37 (82%) stated that library orientation should be made compulsory to students and should be done continuously and 31 (69%) felt that more librarians should be trained on how to teach information literacy courses. Meanwhile, 30 (67) suggested the availability of modern IT equipment and computer labs for conducting hands-on sessions, 28 (62%) said sufficient time should be reserved on the academic timetable towards the instruction classes, 27 (60) suggested credit bearing information literacy education assignments to encourage students' attendance in the instruction classes and 21 (47%) said there should be a department to coordinate instruction programmes.

The study participants demonstrated that to overcome challenges they faced in their IL instructional work, they first needed to include information literacy instruction programmes into the university curriculum so that it can be course-integrated. This implies that there should be a written policy and statement of objectives for IL instructions to be effective. In addition,

participants reported that they needed to have a unit or department to coordinate the IL instruction programmes. Further, it was indicated that libraries need to train skilled full-time instructional librarians to teach information literacy courses, while post library orientations should be made compulsory to all students and should be continuous. There should be modern IT equipment and classrooms to conduct hands-on sessions and credit bearing information literacy education assessments should be conducted to test students' understanding. Since the assessment and evaluation still remains informal, Dadzie (2016) suggest that librarians with instruction roles can conform to standardized methods and approaches outlined in the ACRL Framework for Information Literacy for Higher Education. The ACRL standards indicate that information literacy is the basis for obtaining accurate and complete information. The information seeker is able to obtain information in an intelligent manner. ACRL explains the standards as follows: The information literate person can retrieve information from different sources by using different methods. This involves the use of different search systems including online and other different search tools. This ensures that the information retrieved is very efficient and effective and will be used for decision making and problem solving. An information literate person is able to critically retrieve information that is needed (American Library Association, 2000).

Meanwhile, the area of marketing and promotion of instruction should also be strengthened. Lastly, adequate time for instructions should be allocated on the academic calendar.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Overview

The purpose of this study was to investigate the information literacy instructional practices in university libraries in Zambia. The study therefore, intended to fill the gap by examining the existing information literacy instructional practices; assess the existing IL instructional practices, establish the extent to which IL instruction is informed by the ACRL Framework for Information Literacy for Higher Education, identify key challenges faced by university librarians with instructional roles and establish opportunities for improvement in the IL instructional practices. Therefore, it is from this background that this chapter intends to make the conclusion and recommendations of the said study.

6.2 Conclusion

Sixty librarians (n=60) from a community of university libraries were interviewed. The first part of the questionnaire consisted of background information of the respondents. It collected information on gender, level of education or qualification, type of the university, job title and programmes offered in universities. The largest proportion of respondents 41 (68.3%) were undergraduate degree holders, 14 (23.3%) were master's degree holders, 4 (6.7%) were diploma holders and one had a PhD qualification. The study also revealed that 51 (85%) of respondents work in private universities, while 9 (15%) work in public universities. Participants also indicated a particular discipline or subject area which their library focused on. The majority 17 (28%) focus on business and social science disciplines, while only one focus on hospitality and tourism disciplines.

The picture of existing IL instructional practices in university libraries in Zambia that emerge from the study is one in which undergraduate students are the main target population, and this audience is mainly reached through informal IL instruction. The focus of much IL instruction is general library use, search strategies, use of online catalog and the use of databases. The study revealed that the largest proportion of librarians are not aware of the standards outlined in the *framework for information literacy instruction for higher education institutions* as a result the quality of the IL instruction lessons being conducted in various university libraries are not of international

standards. The major difficulties affecting the IL instruction were lack of IL instruction department, lack of written IL instructional objectives and policy, lack of trained fulltime instructional librarians, inadequate information technology and infrastructure. Other barriers identified were low level of support from university management to fund the budget of the libraries. In terms of opportunities for improvement, librarians suggested areas that might be strengthened such as having IL instructional unit or department, statement of objectives, written instructional policy, systematic assessment of learning outcomes, enhanced marketing and promotion of instruction to faculties and students, increased budget and academic involvement.

6.3 Recommendations

The study has identified the following requirements for a successful and effective information literacy instruction programmes in university libraries in Zambia:

1. **Formulation of instruction policy** – a written IL instructional policy should be provided in university libraries in Zambia to guide the information literacy programme. This is expected to enhance commitment towards implementing the programme and easy performance of self-evaluation.

2. **Introduction of information literacy course across the curriculum** – information literacy education should be introduced in the curriculum of the universities as a full and credit bearing course to allow students' exposure to library use and improved information search and writing skills to produce good quality assignments and research.

3. **Creation of information literacy department or unit** – university libraries should create a dedicated unit or department to administer information literacy instruction programmes.

4. **Appointment of qualified and competent librarians -** more library professionals should be trained to teach the information literacy course in an effective and efficient manner.
5. **Provision of funds** – university management should fund and support the management and implementation of information literacy instructions programme.

6. **Publicity** – marketing and promoting of IL instruction programmes to faculties and lecturers so should be one of the areas that need more strength so that students, researchers and other library users are aware of the importance of information literacy.

5.16 Suggestions for further research

From the survey data obtained from university libraries in Zambia, a similar or a replica of this study could be conducted periodically to provide longitudinal data. If the trends are continuously studied, it could help to monitor progress being made and challenges faced by librarians in their instructional roles.

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Appendices

Appendix I: Questionnaire

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Topic: Survey of information literacy instructional practices in university libraries in Zambia

I am a final year postgraduate student at the University of Zambia in the programme of Master of Library and Information Science (MLIS). I am kindly inviting you to be part of this study since you are a library professional.

Purpose of the Study

In this study I would like to assess the information literacy instructional practices and methods in academic libraries in Zambia. I also want to establish the extent to which the new ACRL Framework for Information Literacy for Higher Education has informed the information literacy instruction in university libraries. I would like also to learn about the key challenges faced by university librarians in their instructional roles. Further I would like to learn about some of the opportunities for improvement that librarians can bring about in the information literacy instructional practices and methods.

Type of Research Intervention

This research will involve your individual participation that will take about half an hour, for you to answer the questions in the questionnaires.

Participant Selection

You are being invited to take part in this research because we feel that your experience as a university librarian can contribute much to our understanding and knowledge of information literacy instructional practices.

Duration

The individual questionnaires will be distributed either online or physical and left for you to respond over a period of one week to complete them. After which I will get back to you to collect the answered questionnaires.

Uses of information

The study endeavors to raise awareness about the importance of IL instruction in academic libraries so that appropriate IL lessons and services can be provided. It is also hoped that the findings of this study will be used to design effective IL programmes in academic libraries in Zambia.

Risks

There is no risk that you may feel uncomfortable talking about some of the topics. However, we do not wish for this to happen. You do not have to answer any question or take part in the discussion/interview/survey if you feel the question(s) are too personal or if talking about them makes you uncomfortable.

Benefits

The information that will be obtained from this study will benefit professional librarians in your university as well as other universities. However, there will be no direct benefit to you, but your participation is likely to help us find out more about how we can develop a standard framework for information literacy in university libraries in Zambia.

Confidentiality

In as much as you have been identified as a key participant in this research, we will not be sharing information about you to anyone outside of the research team. The information that we collect from this research project will be kept private. Any information about you will have a number on it instead of your name. Only the researcher will know what your number is and we will lock that information up with a lock and key.

Sharing the Results

Be assured that nothing that you tell us today will be shared with anybody outside the research team, and nothing will be attributed to you by name. The knowledge that we get from this research will be shared with you before it is made widely available to the public. Each participant will receive a summary of the results.

Who to Contact

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact me;

Alexander Chisanga.

0977-746957

Email: alexchisanga10@gmail.com

This study or protocol has been reviewed and approved by HSSREC which is a committee whose task it is to make sure that research participants are protected from harm.

Approval to conduct this research has been provided by the University of Zambia, in accordance with its ethics review and approval procedures. Any person considering participation in this research project, or agreeing to participate, may raise any questions or issues with the researchers at any time.

1.	What is your Gender? **[ ]** Male **[ ]** Female
2.	What is the highest level of your education? **[ ]** Diploma **[ ]** Undergraduate degree **[ ]** Post graduate level
3.	Your library is associated with **[ ]** Private university **[ ]** Public university
4.	What is the size of the student population of your university? [ ] Fewer than 10,000 [ ] 10,000 – 20,000 [ ] More than 20,000
5.	What is your job title?
6.	If your library focuses on a particular discipline(s) or subject area(s), please indicate:
7.	Does your university library offer formal (i.e., scheduled in advance) instructional classes? [ ] Yes [ ] No
8.	If no please indicate briefly why you think there is no formal instructional programme at your library.
9.	Do you have a written statement of the objectives of your instructional program? [ ] Yes [ ] No
10.	Does your library routinely provide informal instruction (i.e., one-to-one, adhoc instruction) via subject guides (online and/or paper), online tutorials, point-of-use instruction, etc.? [ ] Yes [ ] No
11.	Who is primarily responsible for instruction in your library? (check all that apply) [ ] Full-time instruction librarian(s) [ ] Reference/public service librarians [ ] Other librarians on staff [ ] Other staff, please specify:

12.	Please estimate the proportion of staff time spent on instruction at the start of academic terms, for those staff involved in instruction (other than full-time instruction staff). [ ] 0%–25% [ ] 26%–50% [ ] 51%–75% [ ] More than 75%
13.	Please estimate the proportion of staff time spent on instruction during the **remainder** of the academic year, for those staff involved in instruction (other than full-time instruction staff). [ ] 0%–25% [ ] 26%–50% [ ] 51%–75% [ ] More than 75%
14.	For which of the following do you commonly provide instruction? (**Check all that apply**) [ ] Print indexes or abstracts [ ] Audiovisual materials [ ] CD-ROM resources [ ] Government documents [ ] Library classification system [ ] Online databases [ ] Bibliographic management tools [ ] Scholarly communication (e.g., open access publishing or open education resources) [ ] Other print reference materials [ ] Catalog/OPAC [ ] The Internet/World Wide Web [ ] Library use in general [ ] Electronic documents [ ] Search strategies (e.g., Boolean) [ ] Citation metrics [ ] Other, please specify
15.	Which of the following methods do you use in your instruction? (**check all that apply**) [ ] Web tutorials [ ] Hands-on instruction in computer lab [ ] Individualized instruction (one-on-one) [ ] Self-paced library tours [ ] Lectures/demonstrations in subject classes [ ] Additions to course notes for distance students **[ ]** Group instruction focused on particular courses or subjects [in the library] **[ ]** Social media **[ ]** Credit course **[ ]** Noncredit course **[ ]** Group library tours **[ ]** Library guides or handbooks, paper format.
16.	On what group(s) does your instructional program focus? (**Check all that apply**) **[ ]** First-year students **[ ]** Undergraduates in certain subject disciplines **[ ]** Teaching staff (faculty) **[ ]** Transfer students **[ ]** Postgraduate students.
17.	Overall, what proportion of students do you estimate that you reach in your instructional program? **[ ]** 76%–100% **[ ]** 50%–75% **[ ]** Fewer than 50% **[ ]** Not able to determine **[ ]** Other, please explain.

18.	What kind of instruction topics do you undertake? [ ] Print indexes or abstracts [ ] Audio visual materials [ ] CD - ROM Resources [ ] Government documents [ ] Library classification system [ ] Online databases [ ] Bibliographic management tools [ ] Open access resources Catalog/OPAC [ ] Library use in general [ ] Search strategies (such as Boolean) [ ] Citation metrics
19.	What instructional objectives do you use (rank the objectives from 1 most important, to 6, least important)? [ ] Teach to critically evaluate the quality and usefulness of information [ ] Teach students general strategies [ ] Teach students how to find information in various sources [ ] Teach students how to locate materials in the library [ ] Teach students how databases in general are structured [ ] Teach students how to manage information [ ] Teach awareness of technological innovation [ ] Other, please state and include ranking
20.	To what extent is your instruction informed by the Framework for Information Literacy for Higher Education? [ ] The Framework does not inform my instruction at all [ ] The Framework has had minor influence on my instruction [ ] The Framework has had a significant influence on my instruction [ ] Please comment……..
21.	Is instruction in your library provided with distinct funding in the library budget? [ ] No [ ] Don't know [ ] Yes—what proportion of the budget is dedicated to instruction?
22.	How much nonfinancial support (e.g., administrative support, recognition, encouragement) does your library administration provide for instructional activities? [ ] Full support [ ] Moderate support [ ] Very little support [ ] No support
23.	How do you publicize instructional programs in your library? (**Check all that apply**) [ ] Personal faculty contact [ ] Notices or letters to faculty [ ] Notices in campus newspaper

	[ ] Notices on web [ ] Posters [ ] Email discussion lists [ ] Departmental meetings [ ] Social media [] We do not purposefully promote instruction in our library [ ] Other, please specify
24.	What are some of the challenges you face as you try to provide instruction?
25.	What are the opportunities for improvement in your instructional roles would you identify?
26.	Do you have any other comments about instruction at your campus?
	Thank you for your participation.

Appendix I: The Gantt

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Develop items for survey									
Review and revise items									
Pretest items with represented sample of target population									
Programme software to administer survey									
Prepare survey sites for study									
Administer survey to sites									
Statistical analysis of data									
Preparation of submissions for peer review									
Report									

Appendix II: The Budget

DIRECT COSTS	QUANTITY	INITIAL COST	GRAND TOTAL
Develop items for survey	60	0	500.00
Review and revise items	60	0	500.00
Pretest items with represented sample of target population	60	500.00	500.00
Programme software to administer survey	1	500.00	500.00
Prepare survey sites for study	0	500.00	500.00
Administer survey to sites	0	500.00	500.00
Statistical analysis of data	60	1000.00	1000.00
Preparation of submissions for peer review	60	500.00	500.00
Report	3	300.00	900.00
GRAND TOTAL			ZMK 5400.00