

**EVALUATION OF LIBRARY AND INFORMATION SCIENCE STUDENTS'  
ATTACHMENT PROGRAMME: A CASE STUDY OF THE UNIVERSITY OF ZAMBIA**

**BY**

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**A dissertation submitted to the University of Zambia in partial fulfillment for the  
requirement of the award of the degree of Master of Library and Information Science.**

**THE UNIVERSITY OF ZAMBIA**

**LUSAKA**

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**DECLARATION**

I, **Anita Maseka**, do declare that this piece of work, a degree of Master of Library Information Science (MLIS) dissertation represents my own work, and that it has never been previously submitted for a degree at the University of Zambia or any other University or institution.

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## APPROVAL

This dissertation of Anita Maseka has been approved as fulfilling the requirements for the award of the degree of the Maser of Library and Information Science by the University of Zambia.

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## ABSTRACT

This study was aimed evaluating the Library and Information Science students' attachment programme-a case study of the University of Zambia. The study used a case study design to evaluate the contemporary phenomena within its real life context. The mixed method approach was used to evaluate the significance of Library and Information Science (LIS) student attachment programme at the University of Zambia (UNZA). A purposive sample of 70 students, three (3) lecturers and three (3) supervisors was used. A descriptive design was employed under a mixed method approach that placed greater focus on the qualitative strand. Data collected from questionnaires and interview guides. Descriptive statistics were used to analyse data. The study found that students received industry training, were open to new experiences, developed sense of satisfaction, developed specialised technical skills, recognised personal strengths, acquired knowledge from job duties, had the ability to work and learn independently, developed realistic ideas about real working world, had the ability to persevere and these results tallied perfectly well with the responses from their different supervisors. Further despite attachments bridging the gap between theory and practice other concerns were raised which ranged from too much workload from supervisors, not enough technological equipment in University and industry, lack of transport, lunch, accommodation costs and not enough resources to facilitate training before attachments. The study recommended that the Ministry of Higher Education to continue revising conditions during attachments, train, provide and improve human resource, coordinate various institutions to improve service delivery and lastly provide capacity building and increase other support across all sectors that host students or trainees during attachments.

**Keywords:** *Industrial attachments, internship, practical experience and experiential learning.*

## **DEDICATION**

I dedicate this dissertation to my beloved first born child and son Mapalo and my dearest small baby girl Amilia, whom I conceived and gave birth to during my first part of my postgraduate degree programme. She came at the right time and since then has sacrificed a lot to see me to the end of the programme.

It has not been easy going, but through God's grace, I have persevered to the end of this academic journey.

To you, my dear daughter Amilia and beloved son-Mapalo, I dedicate this dissertation. I also dedicate this dissertation report to my husband for all his tireless support and contribution towards my studies. I also sincerely dedicate this dissertation report to my dearest mother- Angela Ndhlovu Maseka, my dear Aunt- Julian Ndhlovu Nyirenda and Uncle Peter Nyirenda for their support and sacrifice to take care of my daughter while I was attending to my studies.

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## ACRONYMS AND ABBREVIATIONS

<b>AAC</b>	Association of American Colleges
<b>AC</b>	Abstract Conceptualization
<b>AE</b>	Active Experimentation
<b>BALIS</b>	Bachelor of Library and Information Science
<b>CE</b>	Concrete Experience
<b>CUT</b>	Chinhoyi University Technology
<b>ELT</b>	Experiential Learning Theory
<b>GPA</b>	Grade Point Average
<b>ICT</b>	Information and Communication Technology
<b>LIS</b>	Library and Information Science
<b>MLIS</b>	Master of Library and Information Science
<b>NACE</b>	National Association of Colleges Employment
<b>RO</b>	Reflective Observation
<b>RPSs</b>	Relevant Production Skills
<b>UNZA</b>	University of Zambia
<b>ZIMDEF</b>	Zimbabwe Development Fund

# CHAPTER ONE

## INTRODUCTION

### 1.1 Overview

This chapter presents a brief background of the study. It focuses mainly on the statement of the problem, purpose of the study, objectives of the study, the research questions, significance of the study, theoretical frame work, delimitation, limitation, definitions of key terms used and ethical considerations of the study.

### 1.2 Background

Industrial Attachment, sometimes referred to as internship or practical training, practical experience, practicum is a position offered to a student or trainee in an organisation to gain practical experience. In some cases, it is designed to offer students an opportunity to observe scientific research up close and gain hands-on research experience by working as a member in an active research team. It can either be paid or unpaid. It is offered in order to gain work experience or satisfy requirements for a qualification obtainable from a training institution. These industrial attachment positions are usually temporary. Generally, industrial attachments consist of an exchange of services for experience between the student and the organisation. This offer is usually made by the employer to potential interneers, to work at an organisation for a fixed limited period of time. In most cases these industrial attachments for students last for a week through to twelve (12) months.

Industrial Attachments are an important component in the learning system, particularly for tertiary and higher education as they relate to those who are pursuing careers in various fields including such as Librarianship. They enhance students' organisational exposure as well as to the practical world. Industrial Attachments are an integral part of academic programmes that seek to improve students' career prospects and employability. Thus, an Industrial Attachment programme provides a bridge between theory and practice and enhances chances of gainful employment as training institutions are able to produce career-focused graduates with relevant skills for industry (Amankwah, 2011). Industrial attachment forms part of an important ingredient for learning in tertiary and higher education institutions. Significantly, training institutions place particular

importance to industrial attachment as a critical component of their training programmes. In this regard, it has increasingly become an important element of training as employers continue to demand for fully trained students with some work experience; which can be gained through industrial attachment.

On the other hand, field attachment in Library and Information Science (LIS) focuses on the management perspective of organisational effectiveness through the proper use of human resources and people; and understanding of such a theory may be made possible by experience. Attachments are a platform for students to assimilate theory into practice. This is the whole essence of learning anyway, to apply the learned theories. For instance, studies done elsewhere like in Zimbabwe, reveal that because of a growing number of universities producing graduates each year, coupled with dwindling employment opportunities, employers have raised the stakes by looking for those graduates who are self-starters and who have gone through the working environment.

At the University of Zambia, it is mandatory for all undergraduates in the Library and Information Science (LIS) programme to go for industrial attachments in their third year for at least six weeks during their Bachelor's degree programme (Shameenda, Imasiku and Kanyengo, 2017). However, it is not always certain how much student's learn unless comprehensive evaluation of these Industrial Attachment programmes is done. This is necessary because from the time this programme started, there has not been any scientific evaluation done on it. The main objective of attachment for LIS students is to match the students' educational goals with community and organisation needs; and to provide students with practical experiences which reinforce their academic learning (Matamande et al, 2013). This is as result of there has been much concern on the quality of practical experience the students gain in the job market arising out of the industrial attachments (Matamande et al, 2013).

### **1.3 Statement of the Problem**

It is compulsory for every undergraduate student in Library and Information Science to undergo Industrial attachment for a specified period of time under the course code of LIS 3003 (Library practicum). The attachment serves as exposure to the real work environment so that the student can relate theories learned in class and apply them in the workplace to prepare them for their future career as a professional librarian (Gumbe et al., 2012). LIS students pursuing a degree programme

are expected to proceed to industrial attachment in their third year after passing all first year and second year courses for a minimum period of eight (8) weeks, while those pursuing a certificate and a diploma programme from the College are attached for four (4) weeks. The attachment should provide workplace experience that requires the student to practically do the task and be able to apply their knowledge in the library setting. Despite the industrial attachment, it has been generally observed that low competence in creative innovations among the graduates has been a great source of concern to various stakeholders because graduates' industrial output was not commensurate with the investments. The low competence in creative innovations could be attributed to industrial challenges because little attention was given to the students' development and training. Thus, graduates were found to lack industrial experience. The purpose of this study was therefore to focus on what benefits undergraduate students get from participating on the programme; what challenges they are faced with during the industrial attachment and provide possible solutions to the problems faced by the internee.

Although several studies on industrial attachments done elsewhere, dealing with integrating classroom education with practical work experience; thereby enabling graduates to develop their professional knowledge and professional skills (Beard, 1998), yet very little empirical studies have been done that have identified areas of effective attachments. It is therefore critical that these areas are evaluated because they have an impact on industrial attachment programmes for University students. Such evaluations may help realise their positive contribution to students, training organisations and potential employing organisations. It is in this context, that this study seeks to examine the significance of the University of Zambia Library and Information Science Industrial Attachment programme. The study intends to focus on what benefits undergraduate students get from participating on the programme; what challenges they are faced with during the industrial attachment and provide possible solutions to the problems faced by the internee.

#### **1.4 Main Objective of the study**

The main objective of the study was to examine the benefits, challenges and provide possible solutions that internee students face during industrial attachment programme.

### **1.4.1 Specific Objectives**

- i. To ascertain the benefits students gained from the attachments.
- ii. To establish the challenges students faced during attachments.
- iii. To determine the solutions to the challenges faced by students.

### **1.5 Research Questions**

1. What benefits did students gain from attachments?
2. What challenges did LIS students face during attachments?
3. What are the solutions to the challenges students faced?

### **1.6 The Significance of the study**

The importance of the industrial attachments is to complement formal academic learning cannot be over emphasised. Industrial attachments serve as a reference tool for students, employers and future research studies. Employers are much more likely to hire someone with attachments and work experience rather than someone with a generic resume, lacking experience apart from the academic learning they had in a training institution. Thus, industrial attachments are a source of gaining experience. The importance of attachments is key to building experience for a student or recent graduate; hence helps one become a competent and helpful accomplished and confident graduate. Many industrial attachment opportunities help set the foundation for some careers. It is anticipated that the study will generate knowledge which will be important as a source of information for future research.

The study may assist training design industrial training programmes that are responsive to the learning needs of students as well as respond to the needs of the institutions that host student during their industrial attachment. The study may further help host institution in the development of alternate attachment plans based on the findings to minimise the challenges that the students, lecturers and field supervisors face during industrial attachment.

### **1.7 Theoretical Framework**

This section, deals with the theoretical framework in which the examination of the Library and Information Science student's industrial attachment is anchored. Theoretical and conceptual

frameworks are an essential element in understanding the nuances and dimensions of a LIS industrial attachment programme. An examination of students' industrial attachment is complex and requires an integration of different kinds of approaches. The different theoretical and conceptual frameworks discussed in this chapter consider the restrictions and opportunities for examining student industrial attachment programmes. These approaches further provide a deeper understanding of the dynamic nature of the connection between the theoretical and practical component of an industrial attachment programme. There are a number of theories that have been postulated by different scholars concerning student industrial attachment or internship. While each theory is relevant and applicable in a given context, no single theory can explain fully the phenomenon due to their inherent weaknesses. It is against this background that this section discusses the theories that were used in the study.

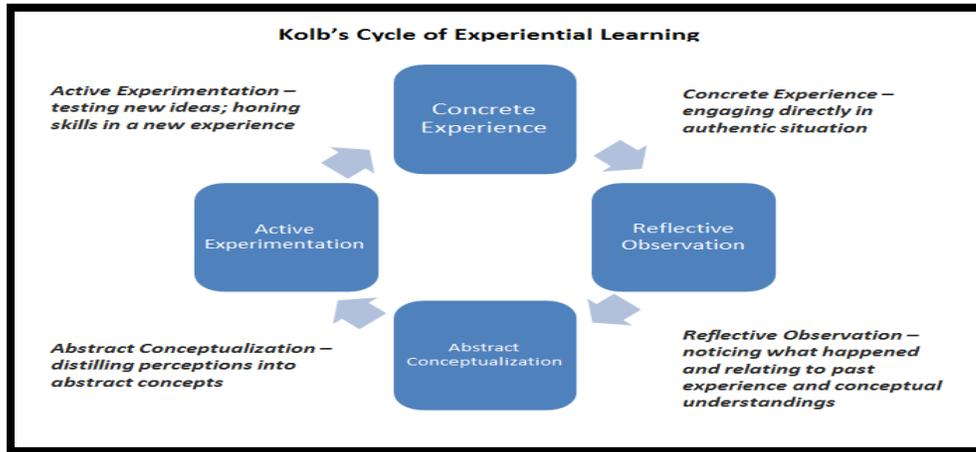
### **1.7.1 Experiential Learning Theory (ELT)**

According to Kolb (1984), Experiential Learning Theory is the process whereby knowledge is created through the transformation of experience. Experiential learning, according to Nutefall (2011) and Cooper (2013) balances the needs of students and community members involved, links the service; and learning through reflective processes, and if skillfully managed leads to positive student personal, social or citizenship, career and intellectual development”.

It is understood that “students are provided with examples of reflective writing, and are led through a discussion and some small exercises that get them accustomed to the concept and methodology of reflection. The second stage works to deepen the students' understanding of reflection, moving from basic to more complex forms (Moon, 2004:134). “In its simplest form, experiential learning means learning from experience or learning by doing. Experiential education first immerses learners in an experience and then encourages reflection about the experience to develop new skills, new attitudes, or new ways of thinking” (Lewis and Williams, 1994:5). Knowledge results from the combination of grasping and transforming experience. Experiential learning is a process through which students develop knowledge, skills, and values from direct experiences outside a traditional academic setting. Well-planned, supervised and assessed experiential learning programmes can stimulate academic inquiry by promoting interdisciplinary learning, civic engagement, career development, cultural awareness, leadership, and other professional and

intellectual skills (Kolb, 1984).

**Figure 1.1. Kolb's Cycle of Experiential Learning**



(Adopted from Boston University Centre for Teaching 2014)

The Experiential Learning Theory model “portrays two dialectically related modes of grasping experience Concrete Experience (CE) and Abstract Conceptualisation (AC) and two dialectically related modes of transforming experience - Reflective Observation (RO) and Active Experimentation (AE)” (Kolb, 1999; According to the four-stage learning cycle depicted in Figure 1.1.

A closer examination of the ELT learning model suggests that learning requires abilities that are polar opposites, and that the learner must continually choose which set of learning abilities he or she will use in a specific learning situation (Kolb, 1999). In grasping experience some of us perceive new information through experiencing the concrete, tangible, felt qualities of the world, relying on our senses and immersing ourselves in concrete reality. Others tend to perceive, grasp, or take hold of new information through symbolic representation or abstract conceptualization—thinking about, analysing, or systematically planning, rather than using sensation as a guide. Similarly, in transforming or processing experience some of us tend to carefully watch others who are involved in the experience and reflect on what happens, while others choose to jump right in and start doing things. The watchers favour reflective observation, while the doers favour active experimentation.

## **1.8 Human Capital Theory**

Human Capital Theory is a framework that examines the relationships between education, economic growth, and social well-being. It is an extension of the capital concept and posits that expenditures on education, job training, and health are capital investments that will yield economic and social returns at the individual and societal levels. Jamil (2004) explains that Human Capital Theory argues that a person's formal education determines his or her earning power. Education and training are assumed to lead to greater productivity, which is ultimately translated into economic returns such as higher wages and increased GDP. Human capital itself is a composite of an individual or workforce's knowledge, skills, and life experiences, and higher levels of human capital are expected to yield increased wages and GDP, benefitting individuals and society as a whole.

A major strength of Human Capital Theory is that it helps policymakers and researchers evaluate the relationships between education and training as inputs and economic and social benefits as outputs. Extensive empirical research within the Human Capital Theory framework suggests that increased amounts of schooling are associated with higher individual wages, GDP growth, higher rates of civic participation, lower crime rates, and better health outcomes. This research offers policymakers a lens for evaluating the relative efficiency of public investments in programs that encourage more schooling. The framework can also contribute to more effective policy development by helping policymakers understand the amounts and characteristics (e.g. quality) of education and training that matter most for achieving desired outcomes such as economic growth and increased levels of civic participation.

Another strength of Human Capital Theory is that it provides a useful lens for understanding how policy can be developed to incentivize individuals' investment in their own education. Pursuing education involves both costs (e.g., forgoing potential earnings in the present) and benefits (e.g., higher wages in the future) at the individual level. By using HCT to understand what these costs and benefits are, policymakers can more effectively develop policies such as student loan and dual enrolment programs to change individuals' cost/benefit calculations (e.g., by reducing short-term costs associated with educational investments) and increase their likelihood of pursuing education.

Though the Human Capital Theory has a weakness in that it assumes education increases productivity in the workplace, resulting in higher individual wages, but it provides little insight into the processes through which education and training are translated into higher wages, it can be used to answer questions about the optimal levels of individual/social investments in education, the kinds (e.g., quality) of investments that are most productive, and when the investments are best made. It is also useful for answering questions about the costs and benefits for individual investments in education and the types of policy interventions that reduce individual costs associated with educational investments.

In line with evaluating LIS students' attachments, Human Capital Theory is applicable in that as students undergo internship programmes, they are able to acquire the knowledge and skills which are very useful in ensuring that the functions to do with Library and Information work are executed by competent and confident employees.

### **1.9 Delimitations of the Study**

The study used a case study which focused only on Library and Information Science students at the University of Zambia Great East Main Campus. The study was only confined to students at the University of Zambia. Students had been chosen because they were the key participants to the study while UNZA was chosen because it met the characteristics or the purpose of the study.

### **1.10 Limitations of the Study**

The researcher restricted herself to the library and information science students only because to the best of her knowledge, these were one of the groups that had a component of practical work in their programme. This was so due to lack of financial resources and limited time of the study programme, (Kombo, 2006) which made it difficult to extend the study to other students and other schools offering practical programmes.

### **1.11 Definition of Concepts**

According to Leong (2004), industrial attachment is the on-the-job training where a student learns by actually doing the job using actual tools in a normal working environment. For Industrial Attachment to be effective qualified supervisors should be available in a conducive environment

for productivity is to increase. In the same vein, Svotwa et al (2013) note that internship is an expert supervised process of transferring skills, knowledge, attitudes and information to students as a way of enhancing their efficiency and effectiveness in their area of specialization. Industrial attachment is an on-the-job training in which a student learns while working within a normal working environment, using the actual tools and actually doing the job. As such, it is a process that moulds a student's knowledge.

Defining the concept Fox (2001) and Neuman (1999) posited that industrial practical training is considered an opportunity to close the gap between school's learned theory and practical reality. This is so because it creates the platform to test skills, interests, and career choices in real working situations while obtaining an edge on inexperienced job market competitors. As for Collins (2001) internship is a bridge from classroom to workplace. It is a requirement to be met in order to graduate, while others see industrial training as platform to get connected, explore new fields of knowledge and acquire experience. From the perspective of the industry, industrial training is a "golden opportunity to try, test before buying" students they might wish to recruit after graduation (Neuman, 1999; Cates-McIver, 1999). In the same line, Gumbe et al. (2012) posited that Industrial Attachment is a process that moulds a student's knowledge, in particular, the student's ability and understanding of information that every student requires to perform efficiently and effectively.

However, the similarities and differences of these terms are not entirely clear (Streumer and Kho, 2006). The industrial attachment programme described in this paper is designed for the undergraduate students to gain work experience, that is, experience gained through the workplace as opposed to the experiences the students gain in lectures and classrooms. Thus, the term Industrial Attachments will be used broadly to encompass these experiences and the literature on Industrial Attachments is also included to explore the importance of internship programmes for undergraduates.

Industrial Attachments is based on the notion that the experience a learner gains at work is considered as an important aspect in matters concerning teaching and learning. Therefore, Industrial Attachments involves a conscious effort to establish situations where learning takes place in real-life contexts. Industrial Attachments encourages a "more participative, learner-centered approach, which places an emphasis on direct engagement, rich learning events and the

construction of meaning by learners” (Lee et al, 2000). In the nutshell industrial training is seen as a short term practical work experience in which students train and gain experience in a specific field or career area of their interests. It is worth noting for their contributions, interns may or may not be paid anything depending on the situation.

Concerning Library and Information Science attachments, Akerejola (2008) opined that the attachment provides students with the experience is an educational programme where they participate in work activities while still attending school. This gives students the opportunity to be directly involved and be part of the actual work situation outside the classroom. For instance library and information science students are able to handle library materials and equipment physically for processing. Books will be accessioned, stamped, catalogued and classified etc. LIS students will also be involved in other library activities like circulation which involves charging and discharging, shelving and shelve reading etc. They will also be part of bindery activities for book production and these will make them to be involved in the actual work situation outside the classroom. It was specifically designed to provide students of tertiary institutions in specific courses, with the opportunity of acquiring practical skills and experiences on-the-job before graduation so that they can graduate as professionals.

### **1.12 Summary**

This chapter has given a brief background on the evaluation of Library and Information Science students’ attachment programme. This discussion was followed by a detailed insight of the effects of undertaking an attachment programme. The chapter also shed light on the statement of the problem, purpose, objectives and research questions which guided the present study. Further, the chapter has provided the significance, delimitations, limitations, theoretical model and discussed how the model was treated to make it more relevant before providing key operational terms used in the study.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Overview

This chapter presents a detailed literature review on students' attachment in general; and Library and Information Science in particular. It briefly outlines the history of the concept and reviews the empirical literature on the subject. The definition of student attachment and the types of student attachments are also discussed. The chapter is divided into three sections. The first section provides a brief background of the concept of student attachment and defines the major concepts. Section two discusses the design, benefits, and challenges of library industrial attachments while the last section provides case studies on Library student attachments. The chapter ends with a summary.

#### 2.2 Historical Background

Industrial attachment falls within the category of experiential learning. The conceptual framework for experiential learning dates back to the early periods of Medieval Europe (Hindman, 2009). Early versions of such vocational training used to take the form of apprenticeships that ranged from five to seven years of service. These apprenticeships were used as a pathway for students of a specific trade to get into a trade guild, which is an association of specialists in a specific field of work. Pratt and Johnson (1983:9) argued that *“vocational apprenticeships programmes are still offered in many of the fields in which this style of instruction originated college students today have the opportunity to participate in an internship or co-op, in conjunction with their chosen collegiate curriculum”*.

Davies (1990) traces the origins of industrial attachment to the Second World War and states that the main reason for the attachment programmes was to bridge the gap between skills demands by industry and the content of traditional undergraduate courses in the advent of technological advances. As a result, graduate students lacked practical skills that they could apply in the workplace which resulted in slow settling in of graduates in the workplace (Percy, 1945). According to Spradlin (2009), Universities took the lead in making internships more appealing to, and productive for students by giving course credit for internships, and advisers pushed internships as a way to get ahead in the competition for jobs. Colleges and major

universities then took this idea and refined it in such a way that it allowed students to gain college credit while testing out possible careers. Later,

*“More and more college faculty members began to establish internship programmes after hearing about them from colleagues at other institutions. It should be noted that most early university internship programmes were established in fields such as business and medicine. Soon, after the surge of new interest in these curricula, most universities established internship programmes in other disciplines. These early programs served as a way for students to try out possible future careers without the commitment of having to work a full-time job (Spradlin, 2009: 2).*

### **2.3 The UNZA LIS Attachment Programme**

The main objective of the industrial attachment programme at the University of Zambia is to form a positive learning experience that combines formal academic studies with informal learning experienced during industrial placement. Thus, the University of Zambia has taken a conscious effort to design an industrial internship programme may be an effective Industrial Attachment programme for its LIS students. This attachment exposes the students to “the real world of work and its challenges which should prepare them towards their future careers. It is a supervised programme since lecturers from the faculty visit the students during this period and at the end of the programme so that they can ascertain the success of the programmes” (Shameenda, Imasiku, and Kanyengo, 2017: 3). The Library practicum, as it is sometimes called, is one of the requirements for a student to undergo before completing the programme. The course (industrial attachment) is undertaken at the end of the third year and the course code is LIS 3003. The library practicum lasts for a minimum of six weeks and takes place during the long vacation. The students have to find their own placements convenient to them, but they must be of acceptable standards as prescribed by the University. It is expected that during the attachment period, students follow the normal eight working hours of the organisation they are placed in, on a five day week basis.

The Library practicum is assessed so that student librarians earn academic credit for industrial work experience. The assessment of students consists of two components. One is based on reports submitted by students to the department regarding their workplace experiences. The reports, which

must document students' weekly activities at the workplace, are assessed by lecturers of the Department of Library and Information Science at the University of Zambia. The other assessment component which is weighted is on students' work performance during the attachment period as assessed by workplace supervisors. The organisation where the student is placed is required to assign a supervisor, preferably a professional in the student's occupational area, to mentor, supervise and assess the student. This supervisory report is also forwarded to the academic supervisors from the teaching department. As a matter of fact, the Library Practicum is reviewed as a course on its own. The understanding is that if a student did not do well in the Library Practicum, then that student should not graduate. This shows the importance of the practicum. It should be noted that the Bachelor of Library and Information Science (BALIS) is a four-year degree programme which is aimed at providing the country with a skilled human resource in the management of libraries and information centers. These are a critical resource in national development. Upon completion of this programme, graduates are expected to perform a number of functions that demonstrate an understanding of how to manage various information systems such as Libraries, Record Centers, Websites, and Databases. Additionally, BALIS students are expected to explain the importance of information in the country's development agenda.

## **2.4 Benefits of Industrial Attachment to the Students in General**

McMahon and Quinn (1995) posit that there is an implied notion in the industrial attachment, that experience cannot be substituted and that the benefits of attachment programmes vary among students, employers and training institutions. Students see attachments as helping them improve their communication skills and a better understanding of the operations of the respective organisation. Munyoro, Nyandoro, and Musekiwa (2016: 2) cited Lauber et al. (2004) reiterating the same argument, that "students gain confidence through the acquisition of practical skills which are increasingly required for effective job performance and employability". Munyoro, Nyandoro, and Musekiwa (2016: 2) further reference (Kwame, 2001; Amankwah, 2011) that the "industrial attachment programme provides a bridge between theory and practice and enhances chances of gainful employment as institutions are able to produce career-focused graduates with the relevant skills for industry". Munyoro, Nyandoro, and Musekiwa (2016: 4) quoting Ryan and Imel (1996) have argued that "students gain knowledge through direct participation in the work process". This is supported by Bailey and Merrit (1997) who point out that the process enables the students to

learn effectively and acquire job experience that reinforces academic instruction as reported by (Munyoro, Nyandoro and Musekiwa (2016: 4).

Leslie (1991) outlines the following benefits of attachment to the students:

*"an opportunity to examine theory through practice, and enhance possibilities of integration; a broader knowledge through increased awareness of the opportunities available, understanding the diversity of the industry sector; personal development, for example, communication skills, working with others, self-discipline, presentation of self and where applicable to working away from home and learning to stand on one's feet; experience of working in a particular sector which will help them in deciding which sector to choose on completion of the course; the possibility of having been exposed to significant aspects of the company's training scheme; a reference likely to attract greater interest from potential employers than experience gained from other sources"* (Leslie, 1991:8).

In their publication on high-impact educational practices, the Association of American Colleges and Universities argues that an internship experience:

*"Deepens learning and brings one's values and beliefs into awareness. The understanding here is that students better understand themselves in relation to others and the larger world, and they acquire the intellectual tools and ethical grounding to act with confidence for the betterment of the human condition This type of practice aligns well with a rising trend in higher education to provide experiential learning, generally known as education through personal experience"* (O'Neill, 2010).

She argues further that:

*"What distinguishes internships from other forms of active learning is that there is a degree of supervision and self-study that allows students to "learn by doing" and to reflect upon that learning in a way that achieves certain learning goals and objectives. Feedback for improvement and the development or refinement of learning goals is also essential. What distinguishes an intern from a volunteer is*

*the deliberative form of learning that takes place. There must be a balance between learning and contributing, and the student, the student's institution, and the internship placement site must share in the responsibility to ensure that the balance is appropriate and that the learning is of sufficiently high quality to warrant the effort, which might include academic credit" (O'Neill, 2010).*

Internships facilitated by campus departments can also address pressures felt by higher education institutions to provide co-curricular, skill-building internships. A key finding in *The Chronicle of Higher Education's* 2012 "Employers Survey" discovered that employers place more emphasis on applicable college internship or job experience than academic credentials such as grade Point Average (GPA). Furthermore, Students are most likely to seek for opportunities available to them to be competitive in the job market. As a result, colleges and universities need to respond to changing student values and expectations, which increasingly includes providing internships and practical experience that can jumpstart a secure path to employment (Stein 2011:12). Industrial Attachments, especially those in academic libraries and similar institutions, help students to add to the traditional college experience by providing venues to observe, conceptualize, apply knowledge and experiment. This includes experiences through co- or extra-curricular opportunities like internships, study abroad programs, field experiences, and service work. The examples provided pertain to the library acting as partner or host to various class projects and not as the work of individual interns (York et al, 1960).

## **2.5 Benefits of Industrial Attachments in Library and Information Science (LIS)**

Active participation in Industrial Attachments enables LIS students to appreciate work methods and gain experience in handling equipment and machinery which may not be available in their institutions of learning. It prepares them to contribute to the productivity of their employers and national development immediately after graduation, as well creating an enabling environment where they can develop and enhance their personal attributes such as critical thinking, creativity, initiative, resourcefulness, leadership, time management, presentation skills, and interpersonal skills, amongst others. Industrial Attachments prepares LIS students for employment and making the transition from school to the world of work easier after graduation. Participation in Industrial Attachments enhances LIS students' contacts with potential employers while on training. It enables

them to bridge the gap between the knowledge acquired in institutions of learning and the relevant production skills (RPSs) required in work organisations. It makes them appreciate the role of their professions as information providers; and also enables students to appreciate the connection between their courses of study and other related disciplines in the production of goods and services.

All activities involved before any book or other information material finally gets to the end user require practical experience and skillfulness without which the objectives of establishing the library will be defeated. The processing tools such as thesaurus, subject heading lists, the classification schemes, the reference tools, the computers, and other digital equipment need practical training to be able to use them effectively. Industrial Attachments play a significant developmental role in preparing library and information science (LIS) students for the world of work. It provides a venue for them to acquire skills and experiences in their course of study (librarianship). Skills in the preparation of bibliography, indexes, abstracts and also bindery work to mention just a few could be acquired during their participation in students' industrial work experience scheme. Industrial Attachments, therefore, prepares LIS students for work methods and techniques in handling equipment and machinery that are not available in their institution of learning (Wodi and Dokubo, 2009).

Mafe (2010) has stated that “someone who has been exposed to both the theoretical and practical methods and the hands-on experience” would and should be better in the real work. The need to combine theoretical knowledge with practical skills in order to produce results or to be productive and be professionally developed is the essence and rationale for industrial training. The major benefits accruing to students who participate conscientiously in industrial training are the skills and competencies they acquire leading to their professional development. These relevant production skills (RPSs) remain a part of the recipients of industrial training as life-long assets which cannot be taken away from them. This is because the knowledge and skills acquired through training are internalised and become relevant when required to perform jobs or functions (Mafe, 2010).

Several other benefits can accrue to LIS students who participate in industrial training which may include an opportunity for LIS students to blend theoretical knowledge acquired in the classroom with practical hands-on application of knowledge required to perform technical works in the

library. It also includes exposure of LIS students to the environment in which they will eventually work (libraries and information centers), thereby enabling them to see how their future professions are organised in practice. This programme prepares them to contribute to the productivity of their employers and national development immediately after graduation and as well creates enabling environment where they can develop and enhance their personal attributes such as critical thinking, creativity, initiative, resourcefulness, leadership, time management, presentation skills, and interpersonal skills, amongst others. Industrial Attachments prepares LIS students for employment and making the transition from school to the world of work easier after graduation. Participation in Industrial Attachments enhances LIS students' contacts with potential employers while on training. It enables them to bridge the gap between the knowledge acquired in institutions and the relevant production skills (RPSs) required in work organisations. It makes them appreciate the role of their professions as information providers and also enables students to appreciate the connection between their courses of study and other related disciplines in the production of goods and services.

Giving undergraduates an opportunity to experience work in a real-world environment will offer a chance for the students to apply theoretical knowledge learned in the earlier years as undergraduates to related, authentic working sites (Hughes, 1998). Many engineering and technology courses in higher education institutions have “sandwich” industrial internship courses where undergraduates do their industrial attachment in either year three or four of their undergraduate programme (Auburn and Ley, 1993; Foster and Stephenson, 1998). This will complement their degree programme whereby the industry location will provide the added practical learning experience. Learning is therefore seen as a two-way process whereby practical experience gained during an internship can complement studies undertaken earlier in the universities (Little, 2004). Industrial Attachments plays a significant role in librarianship as regards professional development without which transition from the classroom to the world of work will be inadequate and haphazard. Without this training, students will graduate as half baked. For instance, a graduate of library and information science who is unable to catalogue and classify is half-baked.

According to Aina (2004), “the information professional is engaged in the organisation, storage, management and distribution of information”. The students of Library and Information Science (LIS) need to undergo proper training to back up their classroom experience so as to be effective

and relevant in their profession and be well developed professionally. All activities involved before any book or other information material finally gets to the end user require practical experience and skillfulness without which the objectives of establishing the library will be defeated. Librarianship is a profession that is concerned with the collection, storage, processing and dissemination of recorded knowledge in the library. The processing tools such as thesaurus, subject heading lists, the classification schemes, the reference tools, the computers, and other digital equipment need practical training to be able to use them effectively. Skills in the preparation of bibliography, indexes, abstracts and also bindery work to mention just a few could be acquired during their participation in students' industrial work experience scheme. An industrial attachment, therefore, prepares LIS students for work method and techniques in handling equipment and machinery that are not available in their institution. Wodi and Dokubo (2009).

An industrial attachment is an inevitable programme to the professional development of LIS students. The intellectual work of librarians is derived from the application of scientific principles in organising, storing, retrieving, and disseminating information. In recent years, the library profession has been affected by developments in ICT. Igbinosa (2007) noted that advances in ICT have changed the paradigm of librarians work from information storage to one of access to world literature resources using electronic databases, the internet, and other digital resources. Omekwu (2005) opined that digital technology has revolutionised information acquisition, storage, and retrieval processes. Therefore, the application of ICT in libraries has widened the scope of librarianship, conferred new roles on libraries, and has placed more demands on the ability of librarians. Karisddappa (2004) also emphasised that society is in need of educating and training library employees for a lasting professional competence, LIS programmes are skill-oriented, and for any adequate skills to be acquired, training has to occur in the appropriate environment". LIS students, therefore, may use various forms of ICT resource in industries where they are posted for Industrial attachments and learn from this experience.

Raimi (2015), quoting Nse (2012), averred that the quality of service rendered in the library is a function of the level of knowledge and skills acquired by the library staff, and since Library and Information Science students of today are the librarians of tomorrow, adequate opportunities to acquire an all-around skills should be given to them so that they can deliver effective services in their future places of work. Industrial attachments are geared towards creating an opportunity for

the industrial readiness of students through training in relevant organisations. Ranganathan's fifth law of library science '*the library is a growing organism*' as stated by Kumar, (2013) implies that librarianship is dynamic in nature, and as such as society changes through development the profession changes along with the library as the hub of activities.

In addition to better academic understanding, participation in internships is also regarded as increasing the marketability of the students when they graduate. The employment market now does not only demand graduates who have a high level of academic knowledge, but also graduates who can demonstrate core competencies essential to succeed in the work environment (Binks, 1996; Johnson, 2000; Okay and Sahin, 2010). Some of these competencies such as working in teams, presenting orally and problem-solving skills can enhance graduate employability (Mason et al. 2006). Thus, through internship placements, students have the opportunity to develop these much-needed skills while pursuing their academic qualifications in the universities (Semedo et al., 2010; Young, 1995).

Knowledge and experience obtained from classrooms differ from that gained during industrial internships. Universities provide formal structured education which is often guided by the teaching staff whereas work placement experience promotes informal or incidental learning (Brennan and Little, 1996; Hughes, 1998; Johnson, 2000). In addition, classroom inputs are usually uniform for all students whereas, during internships, the learning environment differs for each student (Agarwal and Gupta, 2008). According to Trotskovy and Sabag (2010: 5), students also have the opportunity to identify the differences in "traditional learning process in the academic environment and real-design process in the industrial environment". Thus, Industrial Attachments can also contribute to a better academic understanding when students return to their respective universities in their final year (Jackson, 1995) and also appreciate the different learning environment.

### **2.5.1 Benefits of industrial attachments to industry**

The programme bridges the gap between theory and practice for employers, while academics viewed attachment as helping clarify career objectives as well as enhancing job opportunities for the students. Similarly benefits for employers according to Leslie (1991) include the opportunity to employ intelligent, able and willing persons; the possibility that the student is more knowledgeable about non-line management practices, for example, marketing as students may be

potential recruits; as placements can assist in the graduate selection process, and that experience gained on placements reduces postgraduate training needs. Further, a study by Karns (2005) reported that internships were rated highly because of their contribution to the student's learning experience. Whilst, Gault et al (2010) argue that the prime ranking for internships resulted from the students' high commitment and preference for an active, experiential and real-world experience. In turn, Duke (2002) posits that while studies on student perceptions of industrial attachment are informative there is a need for further research into the actual efficacy of Student Industrial Attachment programmes. In support, the National Employer Leadership Council (1999) highlights that labour costs are reduced when students are employed after attachment which potentially increases productivity. For the respective universities benefits for placing students on attachment include the opportunity to improve the curricular (Samuel, 2005).

### **2.5.2 Evaluating Industrial Attachments**

Industrial Attachments as a form of cooperative education was described by Stadt and Gooch (1977) as a programme of occupational education for those who through a cooperative arrangement between the institution and employers receive instruction/training by the alternation of study in school with a job in an occupational field. They stressed that two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and professional development. Also, Mafe (2009) stated that there are two basic forms of learning; education and training both of which are essential to the productive world of work and the functioning of the society. Both education and training are important. For any effective education, there must be some training input and vice versa. Every productive individual in this millennium must be able to combine and make use of the outcomes from the two forms of learning for effective professional development. Likewise, Ugwuanyi, Chijioke, and Ezema, (2010) opined that training is a key factor that enhances the efficiency and expertise of the workforce.

Although the majority of higher education institutions offer internship programmes for their students, the exact nature of each programme may differ according to the aims and objectives set by the respective institutions. However, all internship programmes are mainly formed to give the opportunity for undergraduates to experience and gain practical knowledge in authentic professional environments before they graduate. In general, internship programmes try to merge

students' learning gained in a campus-based environment with the real-work environment. Thus, terminologies used to describe this relationship between learning and work becomes important. Terms such as work-related learning, workplace learning and work-based learning (Industrial Attachments) have been used to discuss and describe internship programmes.

A number of factors have been cited in the evaluation of the effectiveness of industrial attachments. Baechle and Earle (2008) highlight the importance of linking the academic curricular to the work situation where students get attached. The understanding here is that in the absence of such a linkage, there cannot be a meaningful outcome of such an undertaking. Olubenga (2009) points out that the quality of available resources is a key success factor, in particular, the need for a match between the technological resources used by students in universities to those used while on industrial attachment. As a result, mismatches of resources affect the learning process for the student and diminish the potential benefits to both parties, that is, student, industry, and university. Closely related to the quality of resources is the expertise and experience of industry trainers who should have up-to-date skills and knowledge that will be imparted to students in a manner that fosters some sense of continuous improvement among learners (Monarth, 2008). Apart from having high skills, the trainers in the industry should ensure that the training offered is timely and meets the real needs of society (Bottoms and McNally, 2008), a key imperative in rapidly changing global business environments and technological advances. With respect to the learners, Little (2010) draws attention to the need for positive attitudes towards applied learning within the world of business arguing that learners should be fully committed, engaged and prepared to apply and reflect on how academic learning relates to the world of work.

According to Sivotwa et al (2014), the critical elements require positive student attitudes that include being responsible, open, punctual and cooperative. In particular, the aspect of being responsible requires students to be attentive, observant and seek clarity in cases where they do not understand. A study by Gumbe et al (2012) examined students' perspectives on the Industrial Attachment at the Faculty of Commerce, University of Zimbabwe. The findings showed that the majority of the respondents stated that Industrial Attachment was relevant to the academic training at the institution. Further, the study findings pointed out that the programme was introduced by the University in 2002 in order to bridge the gap between theory and practice. However, the related secondary motive was to counter the competition to the University degree programmes posed by

Bachelor of Technology degrees introduced by Polytechnics which had an attachment component which was launched in 2002. This development posed significant levels of competition for University graduates who were viewed as lacking industry experience. It is therefore rational that any industrial attachment is regarded as a way of providing the industry experience for the interns.

The main recommendations by Gumbe et al (2012) which support observations by Olugbenga, (2009) were that the University of Zimbabwe needed to upgrade the technology used for practical degree programmes such as Food and Beverages in the Department of Tourism, Leisure and Hospitality Studies. They further recommended that the Industrial attachment should have at least two assessments and that the grades/credits should contribute to the degree classification. Related recommendations suggested changes and improvements in curricula to include those aspects that should be incorporated into the academic curricula by the University of Zimbabwe.

Mupfumira and Mutsambi (2012) evaluated strategies adopted in implementing the Industrial Attachment programme for the clothing programme at Masvingo Polytechnic in Zimbabwe. Their findings reported that the majority of respondents were satisfied with the Industrial Attachment despite the fact that students found themselves using sewing machines and related technology that was not available at the Polytechnic. This supports observations by Gumbe et al (2012). Olubenga, (2009) notes that the mismatch of equipment and technology cited between the Polytechnic and the attachment organisation affected the students' learning process and experience. As a result, students felt ill prepared due to minimal exposure, for instance to the organisation's other departments such as the Cutting Department due to management's fears of wastage of materials by students. As a result of these inadequacies, further restrictions imposed on student interns were not to work on export orders to minimise errors and mistakes. Overall, the findings support Chowdry and Sudha (1995) that the attachment period allows employers to prepare trainees for the specific needs of the future in industry.

In turn, Chinyemba et al (2012) investigated industrial attachment supervision and assessment issues faced by undergraduate degree programmes at Chinhoyi University of Technology. The study findings showed that realistic and authentic assessments were possible only when students are attached to credible organisations. On the part of the university and organisations accepting students for attachment, the study recommended the need for professional development of both

lecturers and industrial-based supervisors through competency-based assessment approaches suitable for evaluating students learning within the workplace. A study by Sivotwa et al (2014) in Botswana examined perceptions of industry on the Botho University's student Industrial Attachment programme. The examined the stakeholder perceptions on the Industrial Attachment in Botswana since its introduction in 2011. The study findings showed that the majority of the industry sector respondents highlighted that that the attachment programme was relevant. The main recommendations were that Botho University should consider a six- month's Industrial Attachment period and involve industry in curriculum development.

Edziwa and Chivheya (2013) examined students' perceptions on the attachment and the quality of supervision/mentorship at the Zimbabwean Agricultural Colleges after the Fast Track Land Reform Programme post-2000. The study findings reported that students found it difficult to secure attachments and the majority reported that they ended up being attached at black-owned commercial farms that had been acquired from the former white farmer during the government-driven land reform programme. The general situation was that most of the farmers had neither the resources nor the experience in large-scale farming. Some of the students cited, gender-related challenges as female students reported that they encountered challenges in securing attachments than their male counterparts. Further, the study noted that some students perceived the attachment programme as an opportunity for the new farmers and the respective companies to access cheap student labour leading to very little relevant application of theory and practice. The recommendations included the need for Agricultural Colleges to forge permanent linkages and networks with established and viable Agro-Industry and Farmers to improve the students' learning experience. Secondly, that the Colleges were to familiarise themselves with the places where students are attached in order to assess the capacity and suitability for the students. Lastly, the study recommended that students should be funded by the government through the Zimbabwe Manpower Development Fund (ZIMDEF) given that the new commercial farmers lacked financial resources to support students while on attachment.

A study by Adjei et al (2014) in Ghana examined stakeholders' perceptions on the industrial attachment programme in Ghanaian public polytechnics. The findings reported positive stakeholder perceptions in the particular role of the attachment programme as a catalyst for the transition from the classroom to the world of work. Further, to enhancing the relationships between

industry and the training institutions, integrating practice with theory and building students' confidence levels as well as creating a pool for future recruits. In turn, the main weaknesses identified included inadequate logistics, poor funding and lack of follow-up visits and poor supervision of students. On the other hand, Donkor et al (2009) examined the organisational issues and challenges of the supervised industrial attachment offered by a technical and vocational teacher education programme in Ghana. The major findings showed that stakeholders were dissatisfied with inter-alia: the weightings of the assessment components, students having to find their own attachment places, programme duration and the absence of an Industrial Liaison Officer. Related challenges cited include lack of free access to equipment and machines, lack of financial resources to assist with transport costs to and from work and the time spent looking for attachment places. The study recommendations were that in order to restore stakeholder confidence in the attachment programme the authorities need to address the identified issues. In North America, Gault and Duey (2010) explored the effects of business internships at Northeastern University in the United States of America focusing on job marketability from the employers' perspective. The study findings showed that there were better employment opportunities for graduates with internship experience than for those without. In addition, high performing interns were more likely to get higher starting salaries than average performing interns without work experience.

### **2.5.3 Student Industrial Attachment: Challenges**

Carlson (2002) identified a number of challenges faced by students while on attachment. Firstly, stiff competition for attachment places from students from other universities seeking placements. Secondly, the gender bias against female students for placements in some male-dominated work environments. This was cited to be prevalent in engineering fields that were previously the domain for males. Thirdly, the lack of a clear policy on supplementary financial support for students on attachment to cover transport and related costs and lastly, high expectations on the part of organisations for students accepted on the attachment programme. On the other hand, McMahon and Quinn (1995) cite the following challenges on the part of the students: lack of knowledge of the nature of the respective industry, lack of employee organisational fit, resulting in 'hard-knocks' syndrome or literally being thrown at the 'deep-end' and poor employment conditions.

According to Gault, Leach, and Duey (2010), the National Association of Colleges and Employers (NACE) report highlights that economic challenges experienced from 2009 that influenced organisations of all types in the United States to review hiring plans for college graduates. The report states that the resultant outcome of the economic meltdown worried students and parents alike than before, in particular, on the effectiveness of preparation for employment after years of increasingly expensive tuition. However, Gault et al, (2010) point out that competition for jobs remains very high and experience has become key in separating entry-level professionals in global economies during periods of economic boom and decline ([www.naceweb.org/home.aspx](http://www.naceweb.org/home.aspx)). This is supported by Fleetwood and Shelly (2000) who highlighted that experience is becoming a key discriminating determinant for hiring new professionals into the job market. These trends have raised the necessity for student work experience gained through Industrial Attachment, a term referred to as internship and placements in the United States and the United Kingdom, respectively (NACE, 2008 Experiential Education Survey). Tooley (1997) and Gault et al (2010) report that nine out of ten colleges that offered four-year training programmes had some structured work experience that assists students to gain the much-needed experience.

Okolocha and Okolocha (2012) stated that most tertiary institutions do not have the necessary equipment and facilities to equip the students with the necessary skills and competencies, it is then necessary for schools to liaise with industries where these modern facilities can be found for students to be exposed to real practical activities. For an individual to effectively function in the world of work, theoretical knowledge is not enough because such an individual needs to be versatile in the application of skill to perform specific jobs. For instance, while it is possible for someone to learn and imbibe all the available information on the processes involved in cataloguing and classifying a book in the classroom, it is unlikely that the individual would, based on this knowledge alone, be able to process a book at the first opportunity.

In addition Banja (2016) admits that show that newly qualified teachers in Zambia are not offered support. Usually inadequately trained, they often work in unfriendly environments. While induction and orientation are provided, meaningful support is usually limited. As a result, he proposes for the enhancement of support programmes such as mentorship. He further recommends that newly qualified teachers who have failed to meet expected standards should be provided with academic support to help them achieve competency even as they learn to teach.

#### **2.5.4 Challenges of Industrial attachments on the professional development of LIS students**

There are some noticeable challenges facing students' industrial work experience programmes which impede the fulfillment of its objectives. These challenges include finance which affects certain aspects of its operation like students' supervision and payment of allowances to participants. The issue of students' placement is another challenge facing Industrial attachments operation. Some employers are not willing to accept students into their establishments due to attitudes of some students and for not wanting to take responsibility of remuneration of students after completion of the attachment programme; this is a challenge. There is also the problem of some students wanting to choose places of attachment by themselves for reasons ranging from not wanting to be far from their homes and wanting to use the period for enjoyment and leisure like holiday period, thereby choosing places that are not related to their profession. Also facing Industrial attachments operations is an irregularity in the academic calendar of institutions. The issue of strikes and students unrest leading to the closure of institutions has a serious negative effect on the duration of the training as well as when the students can physically go on their attachments. This may lead to not enough practical experience by students and thereby affecting their professional development negatively.

Furthermore, Miyoba, (2018) reviewed that teachers had positive perceptions regarding the role of practical work in teaching integrated science although their perceptions did not translate into actually conducting practical work during teaching. Teachers had indifferent attitudes towards conducting practical work. Teachers of integrated science experienced challenges such as overcrowding in classes, language barrier, inadequate professional development, insufficient instructional time to cover the syllabus content, and poor administrative support. Therefore, an appeal was made to standards officers and head teachers to monitor teachers and help improve teacher support by making necessary materials available for use during teaching as well as organising professional development meetings.

The ICT environment has also created a new modus operandi for the LIS profession by virtue of new tools for information exchange. Jestin and Parameswari (2002) recognise these challenges when they note that the library profession in India, like their colleagues everywhere in the world, particularly those serving high-tech institutions, is already subject to challenges resulting from

ICT. They assert that the new technology may call for organisational change in the traditional library and that librarians may function more like consulting information engineers than as the traditional, passive custodians of information and dispersers of documents.

## **2.6 Emerging Trends in LIS**

Karisiddappa (2004) notes that there is a transition from an agricultural to an industrial economy based on information technology, which influenced governmental policies and program and is related to the production and distribution of information. The industrial economy brought about the information explosion and subsequent increased need for information. The explosion gave birth to the "information society". Information is a necessary ingredient for sustainable economic and social development. As a result of this, ICT appeared as a driving force for development. Information society and the introduction of ICT brought many changes and challenges to the information world. Ershova and Hohlov, (2000) note that the change is affecting every sphere of LIS. The library, as a service-oriented institution, tries to incorporate this new development to encourage effective services to users. Some of these developments, according to Ajidahun (2007), include automation and computers in libraries and other information systems. The advent of computers and the Internet has revolutionalised the information industry since the 1960s. That led to a global exchange of information, and was part of the phenomenon of globalisation, making information professionals at the centre stage of this ICT environment propelling the information society.

The traditional role of LIS practitioners is to acquire, organise, and make information accessible.

Ugwuanyi (2002) traces the development of information channels from oral culture to clay tablets, papyrus, cuneiform, parchment, and print, through micrograph to the new information technology. Every technological development brings new techniques for acquiring and handling information. Present-day librarians are expected to be skilled in using computers, networks, and the Internet to fulfill their professional obligations. Omekwu (2003) enumerated emerging required skills in LIS that result from digital technology, including computer literacy, Internet literacy, information technology literacy, and information literacy. All these skills require that students appreciate all forms of learning; theoretical and practical in order for them to become effective professionals once they enter the world of work.

### **2.6.1 Knowledge Gap Identified**

The literature still leaves knowledge gaps which this study intends to fill through its findings. The knowledge gaps identified for this study include the following:-

- What benefits did students gain from attachments?
- What challenges did LIS students face during attachments?
- What are the solutions to the challenges students face?

### **2.7 Summary**

Industrial attachment programmes have become a permanent component of most degree programmes in Zambia and worldwide. The collaboration between the University Programme and Libraries provides opportunities and benefits to all involved. Students work on projects customised to their interests and goals; and finish the experience with tangible results. They also leave with better research skills and a deeper understanding of library services. The literature reports that the internship experience proved invaluable in securing job interviews or graduate school preparation. The literature reviewed further indicates among several challenges; that librarian supervisors receive assistance with projects and gain a student's perspective on library initiatives and offering cross-campus collaboration opportunities, management experience for librarians, and skills training for undergraduate students. Additionally the literature has shown that the industrial attachment has its own challenges that need to solve in order for the programme to offer constructive benefits to the people and organisation involved.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Overview**

This chapter covers the design for the study. These include identification of the research sites, study population, study sample, sample size, sampling technique and research instruments and how data was collected for the study. Data analysis for the study is discussed in this chapter as collected and analysed, additionally, the chapter deals with how the study handled the issues of reliability and validity. After dealing with ethical issues of the study, the chapter finally closes with a summary of the chapter.

#### **3.2 Research Design**

The study used a case study design to examine the significance of the student Library and Information Science (LIS) Industrial Attachment Programme at the University of Zambia. The case design enables the study of contemporary phenomena within its real life context (Yin, 2013) and in-depth investigation of phenomena (Cavaye, 1996). In this study mixed method was used to collect data. For quantitative data semi-questionnaires were administered to students to find out the benefits and challenges they faced during industrial attachments. For qualitative data interview guides for lecturers and industrial supervisors were conducted so that their opinions could be gathered about the topic at hand.

#### **3.3 Research Sites**

This study was conducted in Lusaka province of Zambia at the largest public learning institution, the University in Zambia (UNZA) where the degree programme in Library and Information Science (LIS) is offered. The University of Zambia main campus was purposively selected as the study location because that is where the LIS academic programme is based and only students under the school of education were considered for the study. The LIS programme at the University of Zambia has been in existence since inception of the university (1966) and that the programme has positively contributed to the advancement of information and communication field.

### **3.4 Study population**

The study population included includes all fourth (4) year undergraduate students studying Library and Information Science who have had an industrial attachment component, lecturers who supervise students on attachments and industrial attachment supervisors, (these are the host Librarians, Documentalist and Information Managers).

### **3.5 Sample Size**

The study was carried out at the University of Zambia Library where the students were attached from 3rd October 2017 to 25th November 2018. As indicated the participants were purposively sample by the fact that they were in their fourth year of the LIS programme at the University of Zambia. The sample included seventy-six (76) participants comprising three (3) lecturers, seventy (70) students and three (3) industrial supervisors. All the respondents were purposively selected on the basis of availability and willingness to participate in the study in order to provide insights on the effectiveness of LIS industrial attachment programmes at the University of Zambia

### **3.6 Sampling Technique**

A purposive sample of LIS fourth year students were included in the sample because they had already done their LIS industrial attachment component of the degree programme and this was in line with the study objectives. The researchers believed that the participants were best placed to provide insights on experiential learning through student industrial attachment programme at the University of Zambia Library. The information was obtained through the record that was available at school. Convenience method was used to pick students who were willing to help and the register was used to meet respondent's sex segregation. Lecturers and host institution supervisors were selected on the basis of availability and willingness to participate in the study.

### **3.7 Research Instruments**

The researcher used both quantitative and qualitative techniques to analyse the data that was collected from various sources. The questionnaires were pilot-tested to check there relevance and validity of the items. All the questions were found to be clear to all the participants. The semi-structured interviews helped to understand the extent to which undergraduates students industrial

experience, quality of industrial experience, challenges experienced in industrial experience, and opportunities for improving accessibility. The interviews were instrumental in identifying undergraduate student's perceptions of industrial experience and management of knowledge, attitudes and practices.

a) Semi-Structured Questionnaires and focus group for students

This method was used to collect information because it was easy to meet targeted students within the campus who were respondents to the questionnaires and administered questions under focus group to get first-hand information. This was done under permission from the Dean of the school and class lecturer.

b) Semi-Structured Interviews with Lecturers who supervise students on attachments

Selected lecturers were visited in their respective offices and were requested to help in answering/providing information as was required in the questionnaire. Appointment was made to lecturers through the Dean of school to get authority and assistance.

c) Semi-Structured Interviews with Industrial Attachment Host Supervisors in the field.

These were visited in their respective offices following the list of all target students who went for attachment as they were supervisors during industrial attachments. Appointment and permission was made to make sure that they were aware of the visit and help the research needed.

### **3.8 Data Collection Procedure**

Data collection was done through self-administered semi-structured questionnaires for students, Lecturers and Host supervisors from different companies where students went for their attachment. Pilot study was done for the purpose of testing the instruments before the final collection. To some supervisors and lecturers, online data collection was used since they could not be available and it was more appropriate for them, while students were given questionnaires that were collected after two weeks through class representatives and focus group was done to few who were found free and were willing to provide information for the study. Information from Semi-Structured interviews was gathered through the use of a digital voice recorder and taking down notes during the interview process. Data recording was also done by the researcher to other lectures and host supervisors who were out their respective offices due to their busy schedule.

### **3.9 Reliability and validity of the study**

The validity of a test is a measure of how well a test measures what it is supposed to measure. Reliability is a measure of how consistent the results from a test are.

#### **3.9.1 Study Reliability**

Patton (1990) defines reliability as a measure of the degree to which a data collection instrument is able to provide consistent results or data after repeated trials with the same or similar respondents and in a controlled environment. The author also sees it as a measure of whether or not an instrument is doing what it is supposed to measure in the process of collecting the data needed in addressing a particular research problem. To ensure reliability in this study, the instruments used were piloted in three schools with the aim of strengthening them before the actual collection of data.

#### **3.9.2 Study validity**

In case of Validity, it is a measure of the degree to which various items in the study instrument cover the materials needed to be collected from fieldwork (Cohen and Marion, 1998). Kasomo (2007) explains validity, as the accuracy and meaningfulness of inferences made from the data generated through use of research instruments. In other words, validity in an instrument is an indication of the degree to which results obtained from the analysis of data can actually represent the trueness of the situation on the ground, thereby making it possible to respond to a research problem. The research instruments used in this study were, designed in such a way that they could effectively compare with other research instruments in terms of validity and reliability of the information collected from an evaluation study based on students industrial attachments conducted at the University of Zambia.

### **3.10 Data Analysis**

Data analysis was analysed first in SPSS and then input into Microsoft excel for data presentation. Data collected from semi-structured questionnaires and interviews was also analysed using thematic analysis approach (Kombo & Tromp, 2006). Primary data was collected from the target respondents (field), edited, analysed and cleaned by reading through responses to make corrections

and reshaping some of the responses to make them more meaningful. The questions in the questionnaire were then coded under simple headings or titles and themes for easy response entry. The responses were entered into the coded headings by summarizing some of the responses that were given by the respondents for analysis. The data was analyzed with the help a Statistical Package for Social Science (SPSS) and excel package. Quantitative data was analyzed using descriptive statistics such as frequencies, cross tabulation and percentages, while the qualitative data collected using open ended questions and analyzed under themes. The analyzed data was presented in the form of tables, pie-charts and bar-graphs where applicable.

Qualitative data were analysed through thematic analysis using NVivo software. This was used because it involves rigorous identification and classification of data according to major themes/topics, concepts and emergent patterns. The focus was placed on identifying, summarising and retaining the patterns / similarities as well as differences in the data.

Quantitative analysis and presentation: quantitative data (from primary sources) was entered in excel template and extracted to SPSS where it was analysed. Descriptive statistical analysis produced the proportions.

### **3.11 Ethical Issues**

Ethical clearance was obtained from the Faculty of the University for School of education to seek permission from the school's managements in order to administer questionnaires and have interactions with students and lecturers. The letter therefore, was photocopied and presented to the various school authorities for permission and guidance or to get in touch with students and relevant people targeted for study. Confidentiality of the information given by the respondents was assured to all respondents. Ethical issues were put in place in this study by seeking permission from all participants included in the sample, before embarking on the study. The researcher ensured that the respondents understood the essence of the study and that they had to be freely willing to participate in the study. Furthermore, all participants were assured of anonymity in their participation in the study and that the study was purely for academic purposes. In addition, all participants were assured that their responses will be kept confidential and used only for this study.

### **3.12 Summary**

This chapter gave an overview of the research methods used in undertaking this study. There was particular focus on the following heading: research design, research site, population, sampling techniques, and data collection procedures and data analysis. In this chapter, an attempt was made to provide a description of the methodology that was used to collect the required data. The chapter has further provided highlights on the research design, population, sample and procedure used to generate the information required to support the study. A justification and description of the research instruments, data collection procedure and how analysis of data was done, has also been given in order to help the reader understand how the findings of the study were arrived at. The chapter has ended by providing ethical considerations which were made in relation to this study. The next chapter presents the findings.

## **CHAPTER FOUR**

### **FINDINGS OF THE STUDY**

#### **4.1 Overview**

This chapter presents the findings of the study. The findings are presented according to the emerging themes in relation to research stated objectives and questions. Furthermore, all the findings are presented according to the two categories of respondents who participated in the study who included the students and the supervisors.

#### **4.2 Presentation of findings**

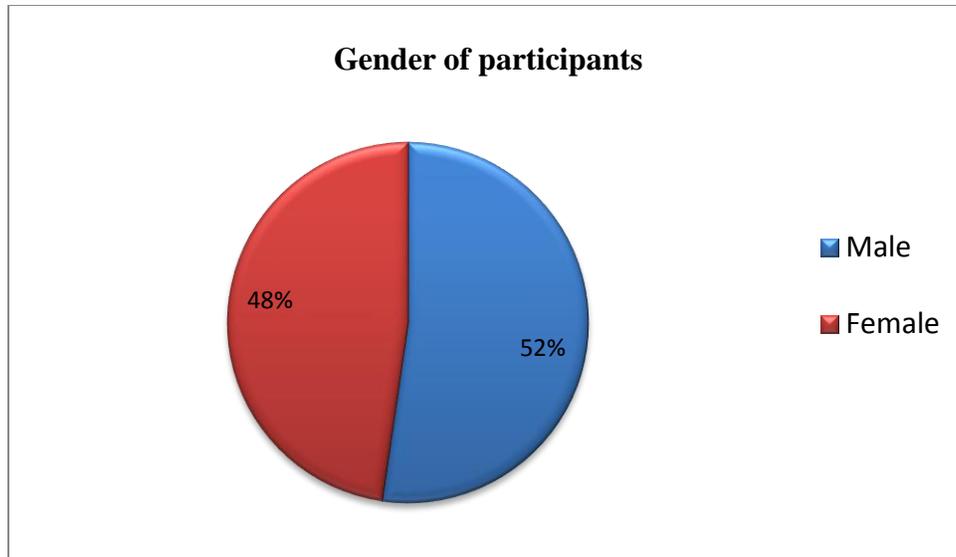
All the responses were strictly analysed according to the objectives set and the research questions. The variables have been presented according to the layout on sampling forms and Questionnaire guide some of which have been grouped to give a general overview of the findings. Similarly, findings have been presented in a number of forms that comprise figures, frequency tables, cross tabulation and logical analysis.

#### **4.3 Demographic and Social Economic Status of the Participants**

All the responses collected from participants were strictly analyzed according to the objectives and questions that were formulated for the study.

##### **4.3.1 Participants by Gender**

The figure one below shows the distribution of respondents by gender. The majority were male 40 (52 percent) and female 36 (48 percent) respectively. This indicates that there were many males who participated in the study compared to females.

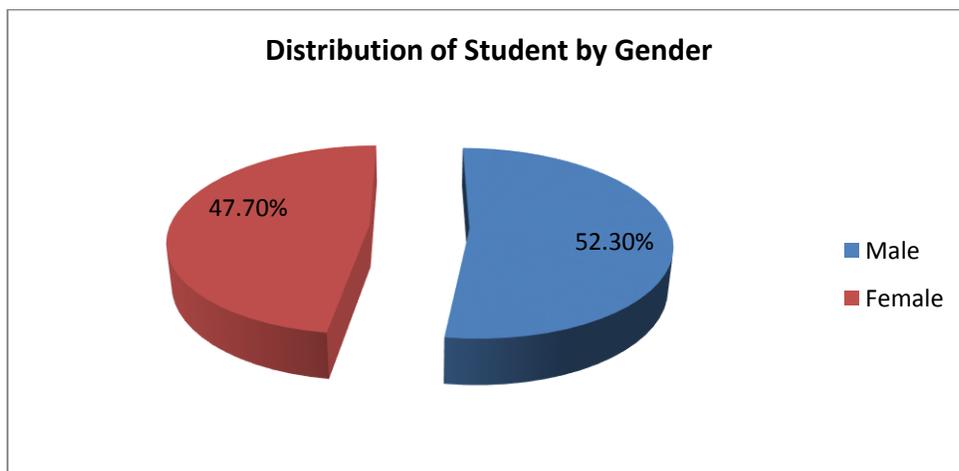


**Figure 4.1: Gender**

*Source: Field work (2019)*

#### 4.3.2 Student distribution by gender

Figure 2 below indicates that out of 70 students, 40 (52.3 percent) were males and 36 (47.7 percent) were females respectively. This indicates that in this study there were more females than males.



**Figure 4.2: Distribution of Student by Gender**

*Source: Field work (2019)*

Table one below shows majority of the participants were in the age between 26-30 25 (35.71 percent), this was followed by 20- 25 at 23 (32.86 percent), while 31-35 were 9 (12.85 percent), followed by 36-40 at 7 (10 percent), those ranging from 41-45 were 4 (5.71 percent) and finally 46 and above were 2 (2.86 percent) respectively. This therefore translates that many participants ranged from the 26-30 years old.

### 4.3.3 Distribution of the Age of participants

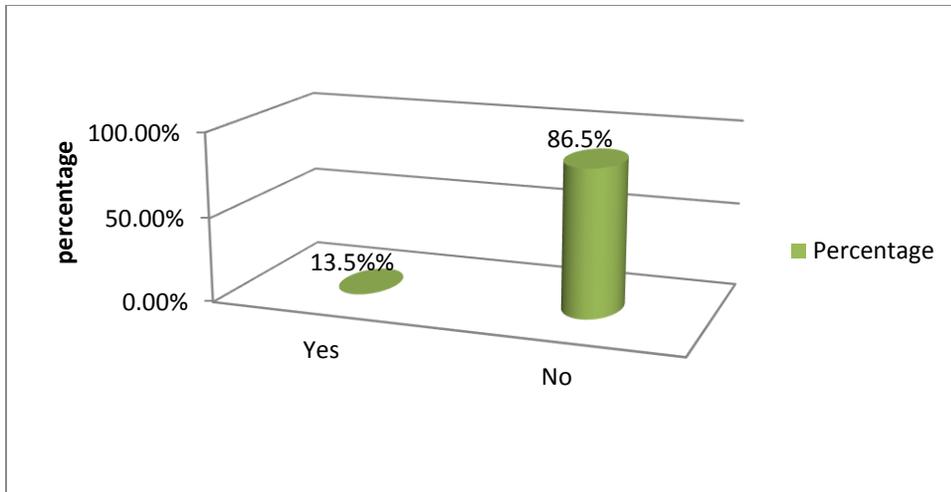
**Table 4.1: Age of Participants**

Age	Frequency	Percentage
20-25	23	<b>32.86</b>
26-30	25	<b>35.71</b>
31-35	9	<b>12.85</b>
36-40	7	<b>10.00</b>
41-45	4	<b>5.71</b>
46 above	2	<b>2.86</b>
<b>Totals</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

### 4.3.4 Social Economic status

Figure four below shows the economic social status of the student. About 10 (13.5 percent) of children were working and 60 (86.5 percent) were not working. This showed that the majority of students were yet to be a stable economic status.



**Figure 2.3: Student A with formal Jobs**

#### 4.3.5 Institutions where the students did their attachments

**Table 4.2: Institutions for attachments**

S/N	Institutions	Frequency	Percent	Cumulative Frequency	Cumulative Percentage
1	University	35	50.0	35	50.0
2	College	15	21.4	50	71.4
3	Government Department	12	17.1	62	88.6
4	Company	4	5.7	66	94.3
5	High School	2	2.9	68	97.1
6	Non-Governmental Organisation	2	2.9	<b>70</b>	<b>100.0</b>
	<b>Total</b>	<b>70</b>	<b>100.0</b>		

*Source: Field work (2019)*

The findings shows that 35(50 percent) of the students did their attachments at Universities, 15 (21.4 percent) did their attachments at Colleges; 12(17.1 percent) did their attachment in government departments, 4(5.7 percent) did their attachments in Companies; 2 (2.9 percent) did their attachments in non-governmental organisations and schools respectively. The results indicate that the majority of the students did their industrial attachments in universities.

#### 4.3.6 Average duration of the Industrial attachment

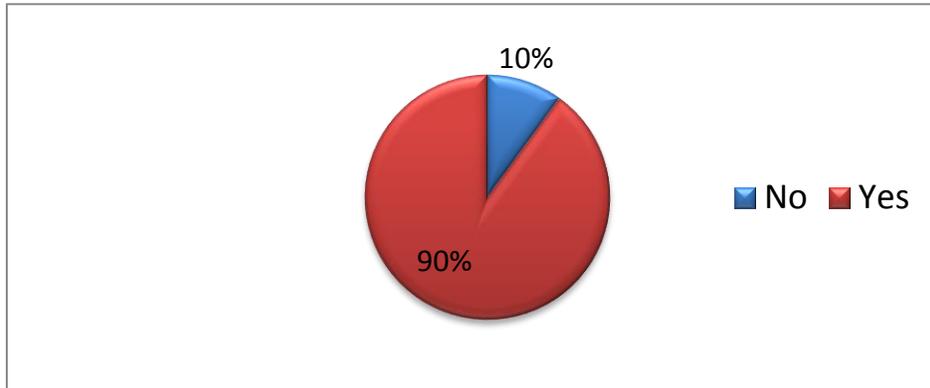
**Table 4.3: Average Period**

<b>Hours of Industrial Attachment</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percentage</b>
0-5 hours	9	12.9	9	12.9
6-10 hours	42	60.0	51	72.9
11-15 hours	3	4.3	54	77.1
16 and above	16	22.9	70	100.0
<b>Total</b>	<b>70</b>	<b>100.0</b>		

*Source: Field work (2019)*

The results show that 42 (60 percent) of the students said they spent between 6-10 hours in a week on industrial attachments, 16 (22.9 percent) spent above 16 hours a weekly, 9 (12.9 percent) spent between 0-5 hours on attachment weekly and 3 (4.3percent) spent between 11-15 hours weekly. The majority therefore spent between 6-10 hours weekly doing their industrial attachment.

### 4.3.7 Industrial Training Host Institution

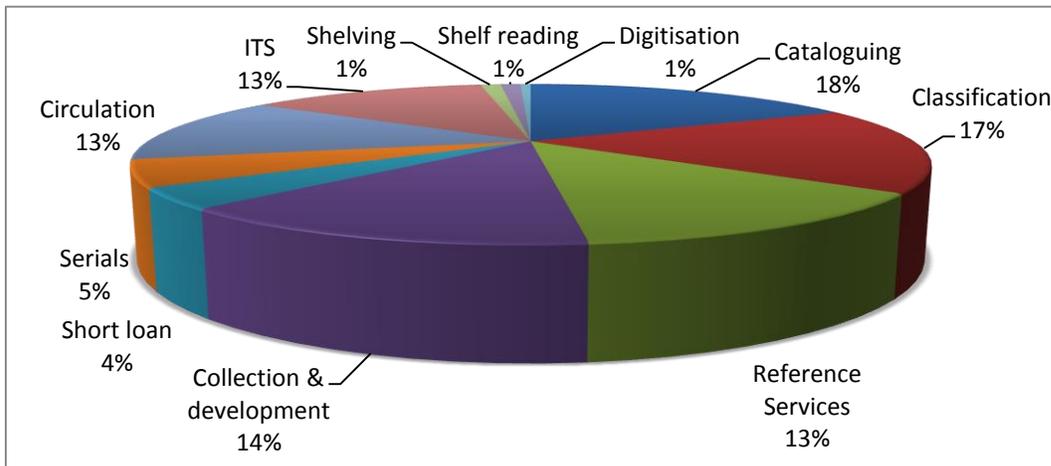


**Figure 4.4: students were trained by host institutions**

*Source: Field work (2019)*

In terms of preparations for the industrial attachments, 63 (90 percent) said they were trained adequately by the host institutions. On the contrary, 7(10 percent) said they were not trained adequately by the host at institution respectively. The results show that the majority felt that they were trained and prepared by the host institutions.

### 4.3.8 Type of training students received from the host institutions

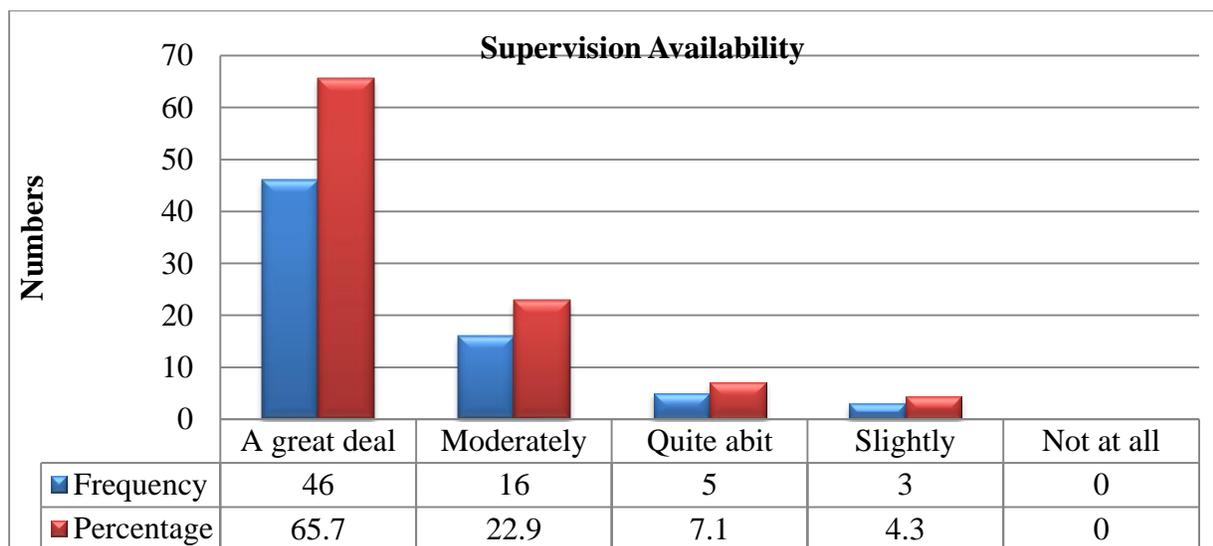


**Figure 4.5: Training Students received**

*Source: Field work (2019)*

The findings below indicate that many students were trained in Cataloguing with an 18 percent responses rate, followed by Classifications with 17 percent, Collection and Development was the third training that students received with a response rate of 14 percent. 13 percent of the respondents showed that students were trained in references; another 13 percent indicated they were trained in circulation and another 13 percent said they were trained in information technology skills (ITS). The rest of the respondents indicated the following: 5 percent for serials, 4 percent for short loan, 1 percent for shelving, and 1 percent for shelf reading and another 1 percent for digitisation. The results therefore indicate that students were trained more in cataloguing, classification, collection and development, reference services circulation and ITS.

#### 4.3.9 Supervision availability for students during industrial attachments



**Figure 0.6: Supervisors available to the students**

*Source: Field work (2019)*

The figure indicates that majority of the students, 46 (65.7 percent) said their supervisors were available a great deal to meet them when they needed them during the industrial attachment, 16 (22.9 percent) said the supervisors were moderately available, 5 (7.1 percent) said they were available a bit and 3(4.3 percent) said they were slightly available and not at all showed zero respectively. The results indicate that the majority of the students had supervisors who were available a great deal when they needed them.

#### 4.3.10 Sense of satisfaction working as a librarian professionals

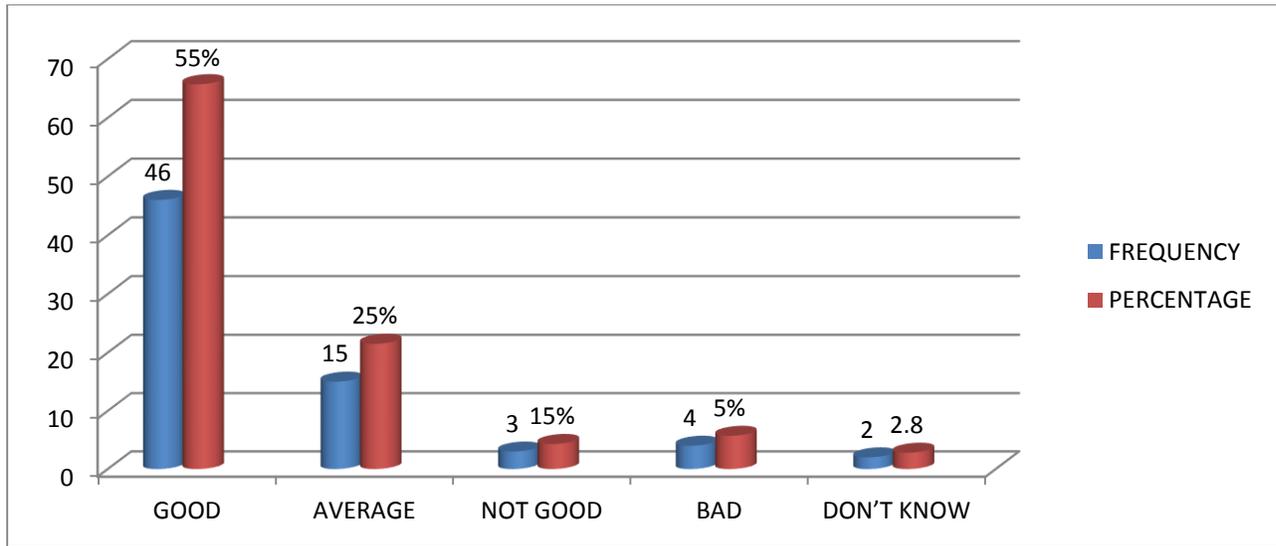
**Table 4.4: Student's sense of satisfaction**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
Very high	28	25.7
High	14	20
Average	13	18.6
Very low	11	15.7
Low	4	5.7
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

The table below indicates that 28 (25.7 percent) said they had a very high sense of satisfaction working as librarian professionals, 14 (20 percent) said they had quite high satisfaction, 15 (21.4 percent) said they were moderately average satisfied working as professional librarians, 13 (18.6 percent) said they were very low satisfied and 11(15.7 percent) said they had low sense of satisfaction were 4 (5.7 percent) respectively. The results show that the majority had a great deal sense of satisfaction working as librarian professionals.

### 4.3.11 New learning experiences during LIS attachment



**Figure 4.7: LIS new experiences**

*Source: Field work (2019)*

The majority of students said it was good 46 (55 percent) indicated that their participation in the LIS industrial attachments opened a great deal of new experiences were average at 15 (25 percent) said their participation in the LIS industrial attachments opened new experiences not good 3 (15 percent) said their participation in the LIS industrial attachments moderately bad and did not open new experiences were 4(5 percent) said their participation in the LIS attachments who said they did not know whether there was new experiences or not were 2 (2.8 percent) respectively. Generally many students indicated that their participation in the LIS attachments opened new experiences a great deal of good experience to students who went industrial attachment.

#### 4.3.12 New knowledge acquisition from library industrial attachment

**Table 4.5: Knowledge acquisition**

<b>Responses</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percentage</b>
A great deal	48	68.6	48	68.6
Quite a bit	3	4.3	51	72.9
Moderately	15	21.4	66	94.3
Slightly	4	5.7	70	100.0
Not at all	0	0.0	<b>70</b>	<b>100.0</b>
<b>Total</b>	<b>70</b>	<b>100.0</b>		

*Source: Field work (2019)*

Out of seventy respondents 48 (68.6 percent) said they acquired a great deal of knowledge during the industrial attachment while 3 (4.3) said they acquired moderate knowledge and 4 (5.7 percent) said they acquired slight percent) knowledge respectively. The results show that the majority of students acquired a lot of knowledge from the industrial attachment.

#### 4.3.13 Lessons learnt from LIS attachment

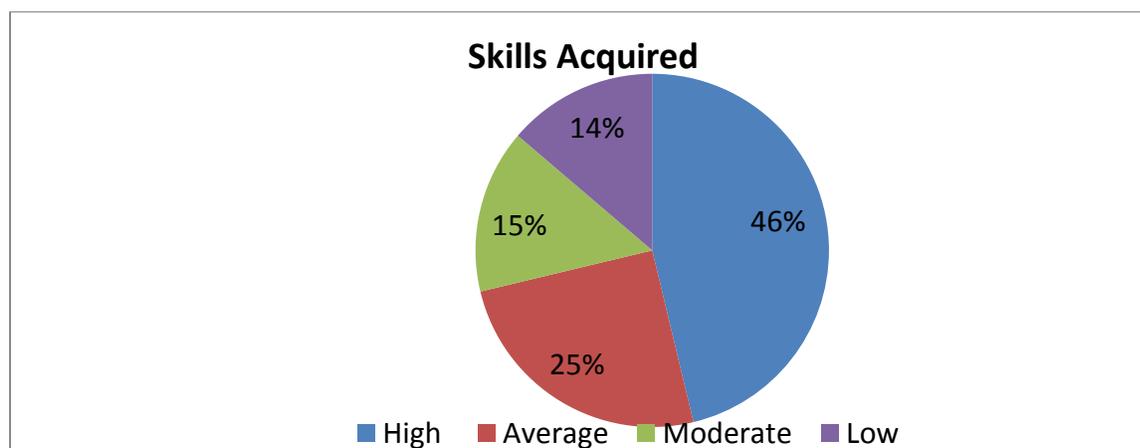
**Table 4.6: Lessons from LIS attachment**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
Very interesting	37	52.86
Interesting	15	21.4
Less interesting	13	18.57
Not interesting	12	17.14
No comment	3	4.29
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

The respondents were asked whether the lessons they from the LIS Attachment helped them understand what they had learnt in class. Those who said very interesting 37 (52.86 percent) said students' attachments helped them a great deal to understand what they had learnt in class and was interesting were 15 (21.4 percent) said the attachment was less interesting and helped them a bit to understand what they learnt in class, 13 (18.57 percent) said the attachments was not interesting and helped them understand what they learnt in class, 12 (17.14 percent) said the attachment whether helped them or to understand what they learnt in class and 3 (4.29 percent) said the attachment did not help them at all to understand what was learnt in class. The results show that the majority of students acquired a lot of knowledge from the lessons learnt during LIS industrial attachment.

#### 4.3.14 Skills acquisition during LIS attachment



**Figure 4.8: Skills Acquired**

*Source: Field work (2019)*

The above table showed knowledge acquisition after attachment, high were at 37 (46 percent), average were at 20 (25 percent) while moderate were at 12 (15 percent) and finally those who said low were 11 (14 percent) respectively. This revealed that many students acquired skill during LIS attachments.

#### 4.3.15 LIS attachment and students broadened future employment possibilities

**Table 4.7: LIS future employment possibilities**

Valuable of responses	Frequency	Percentage
Many have seen their understanding of Library study improved	33	41.25
Motivated and widen their understanding of Library study	31	38.75
Enhanced understanding of Library study and support system	11	13.75
They are empowered with life time skill	5	6.25
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

The table above shows the extent which students gave responses on their future employment possibilities; many said they have acknowledged their understanding of Library study improved 33 (41.24 percent), it was followed by those who said they have seen motivated and widen their understanding of Library study at 31 (38.75 percent), while those who said their enhanced their understanding of Library study and support system were 11 (13.75 percent), and finally those who have been empowered with life time skill 5 (6.25 percent) respectively. This revealed that many students acquired skill during LIS attachments and broadened future employment possibilities.

#### 4.3.16 Opportunity to explore a specific career in the field of librarianship

**Table 4.8: Career opportunity**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
High	30	<b>43</b>
Average	28	<b>40</b>
Moderate	8	<b>12</b>
Low	4	<b>5</b>
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

The results shows that 30 (43 percent) said got a high chance of an opportunity to explore a specific career during the industrial attachment, 28 (40 percent) said they have an average opportunity to explore a specific career, 8 (12 percent) said they moderately have an opportunity to explore a specific career, 4 (5 percent) said they slightly got an opportunity to explore a specific career in the field of librarianship respectively. This translated that many have an opportunity to explore a specific career in the field of librarianship.

#### 4.3.17 Impact of LIS attachment on students

**Table 4.9: Library Experiences**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
Already had interest in librarianship	5	7
Helped gain the practical aspect of librarianship	27	39
Did not learn much	10	14
Students develop interest in librarianship	16	23
Made them know career in LIS is marketable	7	10
Got discouraged with the career and found it boring	5	7
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

The respondents were asked whether the industrial attachment experiences had an impact on them as students. Those who said it helped to gain the practical aspect of librarianship were 27 (39 percent) seconded by those students affirmed developed interest in librarianship because of library attachment were, 16 (23 percent) said who indicated that they did not learn much from the attachments were 10 (14 percent) while others said the experiences gave them an awareness of how marketable the LIS career was were 7 (10 percent) and lastly those who said had already interest in librarianship and got discouraged with the career and found it boring each had 5 (7 percent) respectively. Therefore, this translated that many students were helped to gain the practical aspect of librarianship after doing attachment.

#### 4.3.18 Benefits did students gain from industrial attachments

**Table 4.10: Benefits of industrial attachments**

Responses	Frequency	Percentage
Broadened their ICT skills and helped them work with electronic information in the library	15	21
Knowledge on how to manage database and performing reception duties in the library	16	23
Library cataloguing, reference, archiving books and collection development	11	16
Librarian to client relationship skills and how to handle client complaints	14	20
They learnt how to catalogue and classify books	9	13
Knowledge on electronic reference skills	5	7
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

The table above shows that students acquired knowledge on how to manage database and performing reception duties in the library were 16 (23 percent), while others said they were broadened their ICT skills and helped them work with electronic information in the library were 15 (21 percent), others said the benefited on Librarian to client relationship skills and how to handle client complaints were 14 (20 percent), benefited on acquiring knowledge on library cataloguing, reference, archiving books and collection development were 11 (16 percent), others said they learnt how to catalogue and classify books at 9 (13 percent) and finally those who said they have knowledge on electronic reference skills were 5 (7 percent) respectively. This revealed that many benefited a lot on acquisition of knowledge and how to manage database and performing reception duties in the library.

#### 4.3.19 Challenges students faced during the LIS attachments

**Table 4.11: Students challenges**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
None payment of internship allowances	25	35.7
Too much dust in the library	10	14.4
Lack of full support from supervisors	8	11.4
Poor internet connectivity	5	7.1
Lack of equipment e.g. computers.	5	7.1
Too much workload	4	5.7
Lack of trained librarians to provide guidance	4	5.7
Lack of public awareness about LIS programmes	3	4.3
None performance of practical tasks	3	4.3
Difficult to comprehend the new classification system	3	4.3
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

The challenges students faced during industrial attachments are reflected as above table from the majority of the respondents 25 (35.7 percent) said the major challenges faced resulted from not having money because they were not paid an internship allowances, 10 percent said there was too much dust in the libraries, 8 percent said supervisors were hardly available to provide guidance, 5 percent said the was poor internet connectivity and another 5 percent said they lacked equipment to use such as computers. A further 4 percent said they had too much work load and the same number 4 percent confirmed that there was lack of trained librarians to provide guidance to the

students during the industrial attachments. Lastly, 3 percent pointed out that there was lack of public awareness about LIS programmes and 3 percent also said they hardly performed practical tasks during the industrial attachment period. The major challenges faced by the respondents during the industrial attachment were none payment of internship allowances, too much dust in the libraries and lack of full support from the supervisors.

#### 4.3.20 Solutions to challenges faced by students during industrial attachments

**Table 4.12: Overcoming the challenges**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
Motivate students by paying them allowances	32	45.7
Supervisors must be present more often to offer guidance	7	10
Employ qualified staff	7	10
Cleaning shelves regularly and keeping books dust free	7	10
Procure more equipment	4	5.7
Improve internet connectivity	4	5.7
Buy new books and weed constantly	6	8.6
Training/Host Institutions to implement recommendations made by students	3	4.3
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

The respondents were asked to suggest solution to the challenges and indicate how these challenges could be overcome. Many of the respondents, 32 (45.7 percent) said students on attachments must be motivated by paying them allowances, 7 (10 percent) said supervisors must be present more often to offer guidance, 7 (10 percent) said more qualified staff must be employed

and another 7 percent said shelves must be cleaned regularly and keeping books dust free. Another 4 percent felt that more equipment needed to be procured and the same number 5.7 percent said the internet needed to be improved, 6 percent said new books needed to be procured and the shelves needed to be weeded constantly. Finally, 3(4.3 percent) suggested that government needed to implement recommendations made by students. This revealed that students on attachments should be paid allowance to motivate them.

#### 4.3.21 Suggestions on how the attachments can be improved

**Table 4.13: Improvement on attachment**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
Pay students on attachments	14	20
Sensitize the public on the benefits of the libraries	4	5.7
Provide more practical training to students prior to going for attachments	12	17.1
Increase the duration for attachments	15	21.4
Improve library environments and staffing	7	10
LIS department to find institutions where students can do their attachments	13	18.7
LIS department to dialogue with firms to improve supervision	5	7.1
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

Suggestions on how the attachments can be improved were elucidated from the respondents. The results show that 15 (21.4 percent) suggested that in order to improve library industrial attachments, the duration for the attachments must be increased, 14 (20 percent) of the student respondents said students on attachments must be paid allowances and 13 (18.7 percent) said the LIS department should find institutions where students can do their attachments. A further 12 (17.1 percent) proposed that more practical training to be provided to students prior to going for attachments, 7 (10 percent) said library environments and staffing must be improved, 5 (7.1

percent) said LIS academic department should dialogue with host institutions to improve supervision and 4(5.7 percent) suggested that the public needed to be sensitised on the benefits of the industrial attachment to libraries.

#### 4.3.22 Aspects of the attachments that had the most valuable experiences

**Table 4.14: Most valuable experiences**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
Cataloguing and classification	12	17
Cataloguing	11	15.7
Classification	8	11.4
Shelving and shelf reading	8	11.4
Record management	4	5.7
Circulation and information skills	5	7
All the aspects	2	2.9
Managing database and Performing reception duties	4	5.7
Archiving and collection development	2	2.9
Reference and electronic skills	2	2.9
Special collection and ICT skills	2	2.9
Web designing, cataloguing and reference	2	2.9
Working and acting as a librarian	2	2.9
Working with KOHA software and Working with content and management systems	2	2.9
Librarian to client relationship skills	2	2.9
Digitisation and technological skills	2	2.9
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

Aspects of the attachments that had the most valuable experiences are reflected in table above and showed that 12 (17%) of the respondents said they had the most valuable experience in cataloguing and classification, 11 (15.7%) said the aspect of the industrial attachment that had the most valuable experience was only cataloguing. To the contrary, 8 (11.4%) mentioned classification and the same number 8 (11.4%) indicated shelving and shelf reading respectively. 5 (7%) indicated record management and 5 (7%) said circulation and information skills were what gave them valuable experience. 4 (5.7%) mentioned managing databases and performing reception duties as most valuable experience. About 2 (2.9%) indicated that, what gave them valuable experience were all the aspects; archiving and collection development, reference and electronic skills, special collection and ICT skills, Web designing, cataloguing and reference, working and acting as a librarian, working with KOHA library management software and working with content management systems. They also felt that librarian to client relationship skills; digitization and technological skills gained during the industrial attachment period were very valuable.

#### 4.3.23 Reasons for the value of the LIS attachment experience

**Table 4.15: Reasons industrial attachment experience was valuable**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
Students were able to apply what they learnt in class	23	32.8
Allowed students to interact with diverse people	2	2.9
They learnt how to catalogue and classify books	12	17.1
Learnt how to manage database	2	2.9
Broadened their ICT skills and helped them work with electronic information	8	11.4
Able to enter books using KOHA	3	4.3
They learnt more skills on how to manage the library	13	18.6
Made them relate with users so as to deliver efficient services	4	5.7
Team building and creativity was enhanced	3	4.3
<b>Total</b>	<b>70</b>	<b>100</b>

*Source: Field work (2019)*

The respondents were asked to explain why they felt the industrial attachment experience was valuable. In the table above, the majority of the respondents 23 (32.8 percent) pointed out that the most valuable experience they got from the attachments was that they were able to apply what they learnt in class, 13 (18.6 percent) said the attachments enabled them to learn more skills on how to manage the library, whilst 12 (17.1 percent) said they learnt how to catalogue and classify books, 8 (11.4 percent) said that the attachments broadened their ICT skills and helped them work with electronic information. Additionally, 4 (5.7 percent) of the respondents said it made them relate with users so as to deliver efficient services, 3 (4.3 percent) made them able to enter books using KOHA and another 3(4.3 percent) said team building and creativity was enhanced. Furthermore, 2 (2.9 percent) said it allowed them to interact with diverse people from different backgrounds and lastly, 2 (2.9 percent) also said they learnt how to manage databases.

#### **4.3.24 Findings from the academic supervisors and lecturers**

This section presents findings from Semi Structured interviews that were held with lecturers. A total of three lecturers were interviewed.

#### **4.3.25 Lecturers**

Question 1: Do you have industry's (institutions) where students consult and how are these institution chosen?

The following were the responses to the above question:

##### **4.3.25.1 Availability of list of library industrial attachment host institution**

Yes, there is a list of organisations/ institutions from which the student chooses from;

*Yes, previously since we used to attach students in the past. But then now they go to their preferred institutions which they already know or have seen their friends go to. Some consult the lists. So the list is there and it's up to the students to consult it;*

#### **4.3.25.2 Reasons for choosing the host institution**

An institution/ organisation with a functioning library;

*Must have a qualified librarian/ library officer/ assistant who is training. The qualification should include a certificate, diploma or degree; and It should be a library where students can go and learn something.*

#### **Question 2: What benefits did students gain from industrial attachments?**

The answers below respond to the benefits that students gain from LIS industrial attachment:

*Students were training in specific tasks to be undertaken during industrial attachments; Students were assigned supervisors to supervise them; Students were trained in classification, cataloguing, issuing books, reference, shelving and shelf reading, collection development (processing, classification, cataloguing); Library systems (database) or learnt they found to learn from; All aspects of library and information science, acquiring books, working with people; team work, individual satisfaction; Leadership and management; Problem solving skills; Compensation and change management; Technical services; Reference services; and Library management systems.*

#### **Question 3: What challenges did students face during attachments?**

The respondents identified some of the following as some of the challenges that students face during LIS industrial attachment:

*Some of the challenges include: delays in funding, some students when attached to institutions they don't go there; Lack of payment of internship allowances; Non availability of supervisors; Too much workload; Exposure to unhealthy working conditions; Most students don't report to the designated institutions; Number of students have grown but, host institutions are going down; and Students don't do what is expected of them.*

**Question 4: What are some of the solutions that could be made to improve the industrial attachment experience?**

The respondents indicated that improving the LIS industrial attachment required that academic training institutions:

*Attach students to functional libraries; Supervisors should be available regularly; Designate two phases for industrial attachments; Assign students to known and accessible institutions; and Host institutions improve working environment conditions*

**4.3.26 Findings from host supervisors**

**Question 1: How do you organise your training in the period of attachments?**

Two respondents were interviewed from industrial host institutions. These respondents were from the following institutions; Natural Resources Development College and the University of Zambia Library. The respondents had the following answers:

**4.3.26.1 Do you spell out the tasks the trainee will be involved in?**

*Yes we do. We outline the tasks to be undertaken during industrial attachments. These include cataloguing, classification, shelving, shelf reading, circulation duties, reference, short loan, serials division, and other services found in different units/ departments.*

**4.3.26.2 What do you teach the students?**

*We teach them the practical aspects of the main duties they are expected to perform in a library / information centre/ documentation centre.*

**4.3.26.3 What should your institution do upon completion of the training period?**

*Pay students internship allowances for companies that pay internship allowance. Request students to submit industrial attachments reports.*

**Question 2: What do you think are your benefits for hosting the students on industrial attachments?**

The respondents said that the benefits of LIS industrial attachment to their institution were:

*Increment in the number of staff for the host institution; Completion of technical services and other service in an efficient manner over a short period of time; Assistance in graduate selection process; Reduction in future training needs as graduates have gained work experience during the LIS industrial attachment; Opportunity to employ intelligent, able and willing persons; and Students are potential recruits.*

**Question 3: What are some of the host institution challenges during industrial attachment?**

The following challenges were identified by the respondents as affecting both students and host institutions during industrial attachment periods:

*Some students don't show commitment towards industrial attachments; Not enough funding; Mismatch of industry and university technological equipment; Some students raise personal health issues; and Too many students to be attached to industry at once.*

**Question 4: How to overcome the challenges students face when they are on industrial attachment?**

The respondents suggested that the following are some of the measures that can solve of the challenges that have been identified above:

*Motivate students on industrial attachments; Source for enough funding; and should have two phases of industrial attachments in a year.*

#### **4.4 Summary**

The chapter presented the findings of the study. The results from the respondents have indicated that most students did the attachments in universities. The results have shown that most of the students spent between 6-10 hours on attachments weekly. The majority said they were not paid for their industrial attachments, but were trained by host institutions in areas such as cataloguing, classification, collection and development, reference, circulation and information technology services. In terms of the availability of supervisors, the students have indicated that they were available when they needed them. Generally the results have shown that students benefited a lot from the industrial attachment experiences as students were able to understand and link what they had learnt in class. They further indicated that they learnt and developed a great deal of technical skills that they did not have before they went for their industrial attachment. The results have also shown some aspects of the industrial attachments that had the most valuable experiences which were cataloguing, classification, cataloguing and classification among others. The importance of industrial attachments experience has been given and how industrial attachment experiences had an impact on the students. The challenges encountered by the students in industrial attachments and possible solutions have also been explained in this chapter.

## CHAPTER FIVE

### DISCUSSIONS OF THE FINDINGS

#### 5.1 Overview

This chapter presents analysis and discussions of the themes which were directly related to the research questions.

#### 5.2 Gender profile of the students Respondents

The findings of the research established that 37 (52.9%) were male and 33 (47.1%) were female. Also that the age of the students were 67 (96%) were between 21-29 years and 3 (4%) were between 30-39 years. It is clear that the majority of the respondents were aged between 21-29 years. The results from the study also suggest that the majority of the respondents on the industrial attachments were young and male.

##### 5.2.1 Institutions where the students did their attachment

The study results show that the majority of the students did their attachments at universities. These study findings are in line with Spradlin (2009) who concurs that Universities took the lead in making internship more appealing to and productive for students by giving course credit for internships, and advisers pushed internships as a way to get ahead in competition for jobs. On the other hand, colleges and major universities then took this idea and tweaked it in such a way that it allowed students to gain college credit while testing out possible careers. It should be noted here that most early university internship programmes were established in fields such as business and medicine. Soon, after the surge of new interest in these curricula, most universities established internship programmes in other disciplines Spradlin (2009). But even if the majority of the students did their attachments at universities, other students did their attachments at a number of other institutions like Companies, Government Departments, Non-Governmental Organisations (NGOs), Privates and Schools. This observation concurs with one Lecturer's sentiment:

*“We have a list of institutions where students choose from and that Students need to go to an institution/organization with a functioning library/information center/documentation center which is managed by a qualified librarian/ library*

*officer/ assistant who is trained/ training and that his/her qualification should include either a certificate, diploma or degree. In addition, that it should be a library/information center/ documentation center where students can go and learn something”.*

## **5.2.2 Benefits of industrial attachments**

A number of benefits were cited from the study findings. These included the benefits of industrial attachments to students, industry and the LIS professional.

### **5.2.2.1 Benefits of industrial attachments to the students**

The study findings revealed that the majority of the students received industrial training from the different industries attached to. Students acquired knowledge on how to manage database and performing reception duties in the library and also their knowledge were broadened their ICT skills and helped them work with electronic information in the library. Others benefited on Librarian to client relationship skills and how to handle client complaints and acquired knowledge on library cataloguing, reference, archiving books and collection development. Students also learnt how to catalogue and classify books and finally they have knowledge on electronic reference skills. This revealed that many benefited a lot on acquisition of knowledge and how to manage database and they really appreciated the importance of industrial attachment that is put in place by the school for student to have experience of job related idea.

This is in support with Aina (2004), who argues that the information professional is engaged in organisation, storage, management and distribution of information. The students of Library and Information Science (LIS) need to undergo proper training to back up their classroom experience so as to be effective and relevant in their profession and be well developed professionally. This enables them learn of all the activities involved before any book or other information material finally gets to the end user require practical experience and skillfulness.

The type of trainings the students received during industrial attachment included training in cataloguing, classification, collection development, reference, circulation and information technology skills (ITS) to mention but a few. In support of this training one supervisor said:

*Students come with the theoretical aspects from the classroom but we teach them the practical aspect of it. We teach them all the issues of librarianship. Students learn some important aspects contained in the library services and operations. These include cataloguing and classification, collection development, reference, shelving and shelf reading, short loan, serials and periodicals, electronic resources, and so on.*

The majority of the students were trained in the main duties of librarianship. This finding is in support with Fox (2001) and Neuman (1999) who argue that industrial training is considered an opportunity to close the gap between school learned theory and practical reality. Moreover, industrial training from the industry perspective, is a “golden opportunity to try, test before buying” students they wish to recruit after graduation (Neuman, 1999; Cates-Mclver, 1999).

On the availability of supervisors, the majority of the students mentioned that their supervisors were available to meet when they needed them. Indeed, for the industrial attachment programmes to be effective, qualified supervisors should be available in a conducive environment for productivity to increase. In the same vein, Svotwa, (2013) note that internship is an expert supervised process of transferring skills, knowledge, attitudes and information to students as a way of enhancing their efficiency and effectiveness in their area of specialisation. In support of this assertion, one Lecturer put it as follows:

*Industrial attachment supervisor needs to be available at all times to the students on industrial attachments. He needs to play a role of a mentorship to the students.*

Not only does a supervisor need to be available, but there is a need for them to be also helpful in terms of guiding the students all the time in order to achieve the desired the purpose of the industrial attachments.

The finding has shown that the majority of the students said that they had a sense of satisfaction working as Librarian professionals. The majority of the students said that participation in the LIS Industrial attachments opened new experiences for them. This gave undergraduate (students) an opportunity to experience work in a real-world environment will offer a chance for the students to

apply theoretical knowledge learned in the early years as undergraduates to related, authentic working sites, Hughes (1998). The study findings also revealed that active participation in industrial attachments enables LIS students to appreciate work methods and gain experience in handling equipment and machinery which may not be available in their institutions (like bindery machines) Wodi and Dokubo (2009). It creates an enabling environment where they can develop and enhance their personal attributes such as critical thinking, creativity, initiative, resourcefulness, leadership, time management, presentation skills and interpersonal skills.

The study findings of the majority students also that industrial attachments had broadened their future employment possibilities, as argued by Leslie(1991), who said a broader knowledge through increased awareness of the opportunities available, understanding the diversity of the industry sector; personal development, for example, communication skills, working with others, self-discipline, presentation of self and; where applicable working away from home and learning to stand on one's feet; experience of working in a particular sector which will help them in deciding which sector to choose on completion of the course; the possibility of having been exposed to significant aspects of the company's training scheme; a reference likely to attract greater interest from potential employers than experience gained from other sources. The study findings showed that the majority of the students felt that industrial attachments helped to explore a specific career in the field of librarianship and, developed realistic ideas a great deal about the real working world.

### **5.2.3 Benefits of attachments to the industry**

The study findings from the industrial supervisors, was that the programme helped to bridge the gap between theory and practice. In support, Fox (2001) and Neuman (1999) posited that industrial practical training is considered an opportunity to close the gap between school learned theory and practical reality. Further Collins (2001) argues that internship is a bridge from classroom to work place. Learning is therefore; seen as a two-way process whereby practical experience gained during internship can complement studies undertaken earlier in the universities Little, (2004). In addition, the study findings from the students helped review that industrial attachments prepare students for employment and making the transition from school to the world of work easier after graduation. On the other hand, participation in industrial attachments enhances LIS students' contacts with potential employers while on training.

Similarly benefits for employers according to Leslie, (1991) include the opportunity to employ intelligent, able and willing persons; the possibility that the student is more knowledgeable about non-line management practices, for example marketing; students are potential recruits; placement can assist in the graduate selection process; and that experience gained on placements reduces postgraduate training needs. In support, the National Employer Leadership Council (1999) highlights that labour costs are reduced when students are employed after attachment which potentially increases productivity. For the respective universities, benefits for placing students on attachment include the opportunity to improve the curricular (Samuel, 2005).

#### **5.2.4 Benefits of attachments in LIS**

The study findings reviewed that both the students and the supervisors agreed to a large extent that the attachments in LIS helped to broaden students' future employment possibilities. Supervisors mentioned:

*“that because of students' participation in industrial attachments, enhances LIS students' contacts with potential employers while on training”.*

The study findings showed industrial attachment enables them to bridge the gap between the knowledge acquired in institutions and the relevant production skills (RPSs) required in work organizations. Also, that industrial attachment therefore prepares LIS students for work method and techniques in handling equipment and machinery that are not available in their institution. Wodi and Dokubo (2009). However, Duke, (2002) posits that while studies on student perceptions of industrial attachments are informative there is need for further research into the actual efficacy of student industrial attachment programmes.

#### **5.2.5 Challenges faced by students during industrial attachments**

The study findings revealed a number of challenges faced by students during attachments. The majority of the students cited non-payment of allowances as the major challenge. The challenges students faced during industrial attachments are reflected that the major challenges faced resulted from not having money because they were not paid an internship allowances because they had to look for their own transport, food and other logistics for them to do their research so effective. There was too much dust in some libraries that were visited and students were told to do general

work of cleaning and dusting the library every day. The other challenge was that supervisors were hardly available to provide guidance; this also led to poor internet connectivity and lacked equipment to use such as computers, coats and other essential library use during their industrial attachment. A further challenge was that there was too much work load and the same number confirmed that there was lack of trained librarians to provide guidance to the students during the industrial attachments. Lastly, students pointed out that there was lack of public awareness about LIS programmes where they hardly performed practical tasks during the industrial attachment period. In conclusion the major challenges faced by the students during their industrial attachment were none payment of internship allowances, too much dust in the libraries and lack of full support from the supervisors.

This is in line with other scholars like Carlson, (2002) who cited:

The lack of a clear policy on supplementary financial support for students on attachment to cover transport and related costs were some of the challenges. This as a result, negatively affect some students from poor background who may end up lacking funds for lunch, transport, and accommodation costs.

To also confirm the above challenge one of the three supervisors indicated:

*“There is no payment for the industrial attachments, we just offer you with knowledge, and no any monetary rewards because we enrich you with knowledge only.”*

The study finding revealed that the majority of the students said there was a lack of equipment and facilities to equip the students with the necessary skills and competencies.

Okolocha, (2012) stated that:

*most tertiary institutions did not have the necessary equipment and facilities to equip the students with the necessary skills and competencies, it is then necessary for schools to liaise with industries where modern facilities can be found for students to be exposed to real practical activities.*

Other challenges included students had too much work load whilst no proper guidance from some trained personnel; lack of public awareness about LIS programmes and also those they hardly performed practical tasks.

### **5.2.6 Solutions to challenges students faced during LIS Industrial Attachment**

The study results reviewed that the majority of the students said that they must be motivated by paying them internship allowances. As it was important for their well-being of students for them to work better in the library and receive some allowances for their up keep and transport. There are some noticeable challenges facing students during industrial work experience programmes which impede the fulfillment of its objectives. These challenges include finance which affects certain aspects of its operation like students' supervision and payment of allowances to participants. It is necessary for supervisors to arrange regular and constant visits from the supervisors throughout the attachments. Supervisors should keep check on how students are progressing during attachments. They need to frequently clean and dust up all information resources such as books and others. There was need for procurement of new and latest technological equipment and to provide improved internet connectivity. Information society and the introduction of ICT brought many changes and challenges to the information world. This revealed that students on attachments should be paid allowance to motivate them and meet other logistics for their study.

Ershova and Hohlov, (2000) note that the change is affecting every sphere of LIS. The library, as a service-oriented institution, tries to incorporate this new development to encourage effective services to users. Some of these developments, according to Ajidahun (2007), include automation and computers in libraries and other information systems. There is need for different organisations to employ qualified staff or personnel, always to keep their working environment up-to-date following the dynamics functionalities of the present technological libraries (virtual libraries) within which they operate from. Many scholars have argued that. The ICT environment has also created a new modus operandi for the LIS profession by virtue of new tools for information exchange. In support Jestin and Parameswari (2002) also;

*recognise these challenges when they note that the library profession in India, like their colleagues everywhere in the world, particularly those serving high-*

*tech institutions, is already subject to challenges resulting from ICT. They assert that the new technology may call for organisational change in the traditional library and that librarians may function more like consulting information engineers than as the traditional, passive custodians of information and dispersers of documents.*

Omekwu (2003) conclude by: *enumerated emerging required skills in LIS that result from digital technology, including computer literacy, Internet literacy, information technology literacy, and information literacy. All these skills require that students appreciate all forms of learning; theoretical and practical in order for them to become effective professionals once they enter the world of work.*

In addition, Ugwuanyi (2002) traces the development of information channels from:

*oral culture to clay tablets, papyrus, cuneiform, parchment, and print, through micrograph to the new information technology. Every technological development brings new techniques for acquiring and handling information. Present-day librarians are expected to be skilled in using computers, networks, and the Internet to fulfill their professional obligations*

## **CHAPTER SIX**

### **CONCLUSION AND RECOMMENDATIONS**

#### **6.1 Overview**

Chapter six covers conclusion and recommendations of the study; which arise out of the findings of the study. It is in this context, that this study seeks to examine the significance of the University of Zambia Library and Information Science Industrial Attachment programme. The study intends to focus on what benefits undergraduate students get from participating on the programme and find out challenges they are faced with during the industrial attachment and provide possible solutions to the problems faced by the internee. The conclusions and the recommendations are based on the research findings of the on the subject from the selected participants in the study.

#### **6.2 Conclusion**

This study was an evaluation of the University of Zambia library and information science industrial attachment programme. In order to achieve the study objectives, the study was guided by four research questions. The first question considered whether students gained a variety of benefits from the industrial attachments so as to ascertain the benefits that host institutions benefit from it; amongst which is its reduced future training costs on human resources who may be deployed in the very host institutions in the future.

The second question sought to identify the challenges LIS students faced during the attachment so as to identify the difficulties under which the library industrial attachments are undertaken. The third question was on finding solutions to the challenges faced during industrial attachments. This question was based on the need for industrials attachment coordinating supervisors and management authorities to take note of the problems and find solutions to those problems. The involvement of coordinating partners is crucial and necessary for refocusing the student industrial attachment component in line with its vision and mission to produce excellent graduates ready to offer services to prospective employers and society at large. Using a self-administered questionnaire and interview guide, the study had several themes that emerged out, but the study only concentrated on those that related and answered the stated research questions.

Through this evaluation, the study was able to identify the institutions where LIS students where did their attachment. The study also reviewed the benefits students gained from attachments; which included training by organisation, availability of supervisors, practical knowledge, able to understand what they learnt in class, developed a great deal of specialized technical skills, broadened future employment possibilities, exploration of a specific career in the field of librarianship and, developed realistic ideas about the real working world. The study further highlighted the challenges that students encountered during industrial attachments.

These included: none payment of internship allowances, too much dust in the libraries, supervisors not being fully available during attachments, lack of equipment and technology for students to access internet, too much work load , lack of public awareness about LIS programmes and also that they hardly performed practical tasks. Recommendations on the solutions to overcome challenges were suggested such as the need to motivate the students by paying them internship allowances and availability of supervisors during internship periods. The study concludes that LIS industrial attachment programmes are an essential component of the library profession; as the benefits that arise out of are required by the students, employers and academic training institutions.

### **6.3 Recommendations**

The main recommendations from the study are:

1. The study recommended that the Ministry of Higher Education to continue revising conditions during attachments, train, provide and improve human resource.
2. The University of Zambia unit and industrial organisations to coordinate to improve service delivery and provide capacity building and increase support students or trainees during attachments.
3. Supervisory monitoring mechanisms should be put in place so that all academic industry attachment supervisors effectively supervise the students when they in the field.

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**APPENDICES**

**Appendix A: Semi Structured Questionnaire for Lecturers**

**RESEARCH QUESTIONNAIRE ON EVALUATION OF IMPACT OF LIBRARY ATTACHMENTS ON LIS STUDENTS**

**DEAR RESPONDENT,**

I am a student at the University of Zambia Pursuing a Master of Library and Information Science. You have been randomly selected to answer this questionnaire in which am evaluating the impact and challenges of Library attachments on LIS students. Please note that this is an academic exercise and as such the information you will provide, will be used for that purpose. Your responses will be treated with utmost confidentiality.

**Yours faithfully,**

**ANITA MASEKA**

**SECTION A (BACKGROUND INFORMATION OF RESPONDENTS)**

Please tick the appropriate response in the box provided. Tick only one answer

- 1. What is your gender?
  - Male
  - Female
  
- 2. What is your age?
  - 20 and Below
  - 21 – 29
  - 30 – 39
  - 40 – 49
  - 50 – 59
  - 60 and above

3. What is your marital status?
- Single
- Married
- Divorced
- Widowed

4. What is the highest level of education attained?
- Grade Twelve (12)
- Certificate
- Diploma
- Degree
- Masters
- 

**SECTION B CHARACTERISTICS OF ATTACHMENT**

5. a) Where did you go for attachments?
- University
- College
- Government Department
- Company
- Non-Governmental Organisation
- Private

- b) Name the above institution where you were attached?

.....

.....

6. During a typical week, estimate how many hours you spent on your attachments

0 – 5 hours

6 – 10 hours

11 – 15 hours

16 and above

7. Was your attachment paid?

Yes

No

8. If YES, how much were you paid?

.....

9. Did you receive any preparation or training from the host institution/firm

Yes

No

10. If YES, what kind of training did you receive? Please tick

a) Cataloguing

b) Classification

c) Reference

d) Collection Development

e) Shot Loan

f) Serials

g) Circulation

h) Information Technology skills (electronic)

i) Others specify.....

11. Was your Supervisor available to meet when needed?

a) Not all

(b) Slightly

(c) Moderately

- (d) Quite a bit
- (e) A great deal

**IMPACT OF YOUR INTERNSHIP**

Using the scale below, please indicate the degree to which participation in your attachments experience increased or strengthened your abilities, attitudes, awareness or understanding in each areas identified.

12. As a result of my participation in LIS attachments, I have a sense of satisfaction in working as a Library professional

- Not all
- Slightly
- Moderately
- Quite a bit
- A great deal

13. . I am open to new experiences

- Not all
- Slightly
- Moderately
- Quite a bit
- A great deal

14. I have gained the capacity to be more productive

Not all

Slightly

Moderately

Quite a bit

A great deal

15. I can recognise my personal strengths

Not all

Slightly

Moderately

Quite a bit

A great deal

16. I can recognise my personal weaknesses

Not all

Slightly

Moderately

Quite a bit

A great deal

17. I have a sense of personal achievement

Not all

Slightly

Moderately

Quite a bit

A great deal

18. I have the ability to persevere

Not all

Slightly

Moderately

Quite a bit

A great deal

### **ACADEMIC IMPACT OF ATTACHMENT**

As a result of my participation in the LIS attachment programme

19. I have acquired knowledge from the job duties I performed

Not all

Slightly

Moderately

Quite a bit

A great deal

20. I have broadened my critical thinking skills

Not all

Slightly

Moderately

Quite a bit

A great deal

21. I have the ability to work and learn independently

Not all

Slightly

Moderately

Quite a bit

A great deal

22. Lessons learnt helped me to understand what I was taught in class

Not all

Slightly

Moderately

Quite a bit

A great deal

### **EMPLOYMENT IMPACT**

As a result of my participation in the LIS attachment programme,

23. I developed specialised technical skills

Not all

Slightly

Moderately

Quite a bit

A great deal

24. I broadened my future employment possibilities

Not all

Slightly

Moderately

Quite a bit

A great deal

25. I got an opportunity to explore a specific career in the field of Librarianship

- Not all
- Slightly
- Moderately
- Quite a bit
- A great deal

26. I developed realistic ideas about the real working world

- Not all
- Slightly
- Moderately
- Quite a bit
- A great deal

27. I narrowed my future possible careers

- Not all
- Slightly
- Moderately
- Quite a bit
- A great deal

28. Which aspect of the attachment was the most valuable experience for you?

.....

.....

.....

29. Why was is valuable?

.....

.....

.....

30. How did the attachment affect your learning?

.....  
.....  
.....

31. Did the attachment have any impact on your choice of career?

YES

NO

32. If YES or NO, what are the reason(s)

.....  
.....  
.....

33. What were the main challenges encountered during the attachments?

.....  
.....  
.....

34. How can those challenges be overcome?

.....  
.....  
.....

35. How can the organisation of Library attachments be improved upon by the Department of Library and Information Science?

.....  
.....  
.....

## **Appendix B: Semi-Structure Interview Schedule for Academic Training Units**

**DEAR RESPONDENT,**

I am a student at the University of Zambia pursuing a Master of Library and Information Science. You have been selected to provide information regarding LIS industrial attachments. Please note that this is an academic exercise and as such the information you will provide, will be used for that purpose only. Your responses will be treated with the utmost confidentiality.

### **LECTURERS FROM ACADEMIC TRAINING UNITS**

Question 1: Do you have institutions where students consult and how these are chosen?

Question 2: What benefits do students gain from industrial attachments?

Question 3: What challenges do students face during attachments?

Question 4: What are some of the solutions that could be made to improve the LIS industrial attachment?

*Thank you very much for sparing some time for this interview.*

## **Appendix C: Semi-Structure Interview Schedule for Host Institutions**

**DEAR RESPONDENT,**

I am a student at the University of Zambia pursuing a Master of Library and Information Science. You have been selected to provide information regarding LIS industrial attachments. Please note that this is an academic exercise and as such the information you will provide, will be used for that purpose only. Your responses will be treated with the utmost confidentiality.

### **SUPERVISORS FROM INDUSTRY**

Question 1: How do you organize your training in the period of attachments?

Question 2: What do you think are your benefits for hosting the students on industrial attachments?

Question 3: What are some of the industry challenges?

Question 4: How can these challenges be overcome?

*Thank you very much for sparing some time for this interview.*

Appendix D: Introductory Letter



THE UNIVERSITY OF ZAMBIA  
SCHOOL OF EDUCATION

Telephone: 291381  
Telegram: UNZA, LUSAKA  
Telex: UNZALU ZA 44370

PO Box 32379  
Lusaka, Zambia  
Fax: +260-1-292702

Date: 1<sup>st</sup> June 2018

**TO WHOM IT MAY CONCERN**

Dear Sir/Madam

**RE: FIELD WORK FOR MASTERS/ PhD STUDENTS**

The bearer of this letter Mr/Ms. MASEKA ANITA..... Computer number 2016145736..... is a duly registered student at the University of Zambia, School of Education.

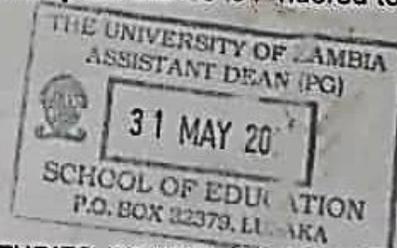
He/She is taking a Masters/PhD programme in Education. The programme has a fieldwork component which he/she has to complete.

We shall greatly appreciate if the necessary assistance is rendered to him/her/.

Yours faithfully

Emmy Mbozi (Dr)

ASSISTANT DEAN POSTGRADUATE STUDIES- SCHOOL OF EDUCATION



cc: Dean-Education  
Director-DRGS