THE UNIVERSITY OF ZAMBIA

SCHOOL OF EDUCATION

DEPARTMENT OF LIBRARY AND INFORMATION STUDIES

COURSE: LIS 4014

TASK: RESEARCH REPORT

SUPERVISOR: MR ABEL M'KULAMA

TOPIC: KNOWLEDGE SHARING IN HIGHER LEARNING INSTITUTIONS. A CASE STUDY OF LIS STUDENTS AT THE UNIVERSITY OF ZAMBIA.

GROUP MEMBERS:

Nkole Paul Phiri   14046733

Zamiwe Maida   14100665

Betty Musole   14050641

Lilian Mukosha   14135124

DECLARATION

We do hereby declare that this research report represents our own work excerpt were we have indicated our indebtedness to other sources and that it has not been submitted for a degree by anyone else at the University of Zambia or at any other University for the purpose of acquiring a degree.

NAMES	SIGNED	DATE
Nkole Paul Phiri	…………….	……………
Zamiwe Maida	…………….	……………....
Betty Musole	…………….	……………....
Lilian Mukosha	……………..	…………….

DEDICATION

We dedicate this research report to the Almighty God and to our beloved ones who have always

been there for us no matter what.

ACKNOWLEDGEMENTS

CERTIFICATE OF APPROVAL

This Research Report has been approved as fulfilling the requirement for the award of the under

graduate degree in Library and Information Studies by the University of Zambia.

SIGNITURE: ………………….......   DATE: ……………………..

ABSTRACT

The research examined the knowledge sharing practice among LIS students at The University of Zambia. It specifically sought to find out the factors influencing knowledge sharing among LIS students; to establish the knowledge sharing activities practiced and to find out the barriers to knowledge sharing among LIS students. This study used a mixed method approach to carry out the research. A sample of 50 Library and Information Studies third and four year students were purposively selected for the study. The data was collected via self-administered questionnaires. From the data collected, it was established that the practice was very much present and students often engaged in it. Also, the study revealed that student participation in sharing knowledge is mainly influenced by teamwork and their depth of knowledge about any particular subject matter. In addition, the study unveiled high use technology in sharing knowledge which may imply that institutions need to leverage more on the major technological development in order to maximise the practice of sharing knowledge. The research also brought to the fore the fact that students use a number of activities to share what they know. Students are more attracted to activities that enable them free express themselves among their peers. Such activities include group discussions and group assignments. With regards to barriers to knowledge sharing, the study summed up all the findings in three categories namely personal, organisational and technological barriers. Therefore the study concluded even though knowledge sharing practice is present, its benefits are not fully known. Also, management has not done much enough to enhance the practice among students. It thus recommended that there is need for the creation of more incentives for knowledge sharing so that students feel motivated to share what they know. Moreover, management should emphasize the value of sharing knowledge to all students and should in effect improve teaching methodologies to a level were more platforms of sharing knowledge are created. And lastly, technology-based facilities and services such wireless internet provision need to be improved.

LIST OF ACRONYMS

CoP	COMMUNITY OF PRACTICE
CUP	COMMUNITY UNIVERSITY PRACTICE
ICT	INFORMATION AND COMMUNICATION TECHNOLOGIES
IT	INFORMATION TECHNOLOGIES
KM	KNOWLEDGE MANAGEMENT
LIS	LIBRARY AND INFORMATION
MS	MICROSOFT
SPSS	STATISICAL PACKAGE FOR SOCCIL SCIENCES
UNZA	THE UNIVERSITY OF ZAMBIA

TABLE OF CONTENTS

CHAPTER ONE
INTRODUCTION

1.0 OVERVIEW

This chapter introduces the investigation of the extent of knowledge sharing among library and information studies (LIS) students. It includes a comprehensive background on the topic, background on the study site, statement of the problem, objectives, research questions, ethics, significance of the study and operational definitions.

1.1 BACKGROUND

It has become a custom to refer today's economy as a knowledge-based economy. Knowledge is gradually becoming 'the' resource, rather than 'a' resource for wealth creation. It is commonly acknowledged that knowledge is a critical asset to individuals as well as organizations to thrive in the increasingly competitive environment (Syed-Ikhsan and Rowland, 2004). As a result, how to make use of knowledge in order to produce the utmost value is becoming the fundamental concern and discussion in the new economy. Several researchers which include Cardoso (2008), have endeavoured to explore the issue by recognising the prominent features of the knowledge-based economy and formulating various strategies to capture and form a new basis of competitive advantage in the new society. However, most studies associated to the knowledge-based economy are limited to the operational challenges of the new economy (knowledge), giving too much attention to issues such as knowledge management system, innovation and technological application. Very little investigation has ventured into the study of human behaviour in the new economy, for instance, how individual views the sharing of their hard-earned knowledge asset, what motivated or discouraged them to involve in knowledge-based activities.

The concept of knowledge management (KM), started to gain attention in managerial and academic contexts in the 1990s as such, it can be seen as a system that enhances an organization's learning through facilitation of knowledge (both tacit and explicit) exchange and sharing (Yahya & Goh, 2002). Explicit knowledge is transmitted in formal, systematic language. For this reason, it can be easily communicated and shared through product specifications, a scientific formula, or a computer program. Explicit knowledge is captured in records of the past, such as libraries, archives, and databases, and it is assessed on a sequential basis. On the other

hand, tacit knowledge is highly personal, hard to formalize, and difficult to communicate to others. It is deeply rooted in action and in an individual's commitment to a specific context a craft or profession, a particular technology or the activities of a work group or team (Nonaka, 1994).

Within the generally knowledge management area, an important area that requires more attention is knowledge sharing. Sharing of knowledge is entrenched in the knowledge-processing area where knowledge is generated and used (Shapira et al., 2005). Successful knowledge management approaches should emphasize the importance of knowledge sharing to attain highest results for organizations. Knowledge sharing ensures the knowledge is available and delivered in the nick of time. Furthermore, by providing dynamic solutions to customers, knowledge sharing may save time and improve the quality.

Hsiu-Fen (2006) defines knowledge sharing as the act of capturing, organizing, reusing, and transferring experience-based knowledge that reside within the organization by making it available to others in the business. One of the vital characteristics of knowledge sharing is that it is capable in generating new ideas and developing new business or opportunities through socialization and learning process of knowledge workers. Besides, knowledge sharing can be referred to as the transfer of information combined with the skill and experience of the team or organization to benefit (ibid). It is aimed to do something useful with knowledge. Improving knowledge sharing is made in two dimensions: one dimension is managing the existing knowledge including the development of knowledge repositories (memos, reports, articles, and reports), and knowledge compilation. Another dimension is managing knowledge specific activities, that is, knowledge acquisitions, creation, distribution, communication, sharing and application (Stenmark, 2001).

Currently, students in higher learning institutions are exposed to a range of means available that supports them in their learning development. Consequently, with the pursuit of this information concurrently leads to the Knowledge Sharing activities, more so when there is a great need in the education field. According to Brown (1988) students in learning communities are expected to be responsible of their education proactively by learning with both individual responsibility and communal sharing. This idea suggests the importance and value of knowledge sharing among students. Research on knowledge sharing among university undergraduates been have recognized as an important and interesting area of study in the academic world, (Wei, 2012).

Regardless of increasing acknowledgement of the significance of knowledge effects on KS, regrettably there is an absence of linked practical research in Zambia's educational field. Thus, this study attempts to find out the extent of sharing knowledge among Undergraduate Students in Zambia.

1.2 BACKGROUND OF THE UNIVERSITY OF ZAMBIA

The University of Zambia was established by an act of parliament in November, 1965. It is currently comprising of nine schools which are Agricultural science, Education, Engineering, Humanities and Social Sciences, Law, Medicine, Mines, Natural Science and Veterinary Medicine. UNZA was established after the government appointed a commission under the chairmanship of Sir John Lockwood (a former vice-chancellor of the University of London) in 1963 to advice on the development of a University. In its report, the Lockwood Commission unanimously recommended the establishment of a University in Lusaka. In early 1964, the government signified that it accepted the recommendation of Lockwood Commission and within four months there was inaugural meeting of the provisional council of the University which was a body charged with brining the University into being. Later in July 1964, the former institute of Rhodes-Livingstone dating back to1938 came under the jurisdiction of the provision council. In July 1965, Dr. D.G Anglin of Charleston University in Canada was appointed as Vice-chancellor.

Additionally the mission statement states that the purpose of the institution is to fulfil the historical purpose of excellence in teaching, research and scholarships. The mission also aims at advancement of national development through the application of learning and research, promote learning by offering opportunities for advanced education to all suitably qualified persons, without distinction of race, gender, religion or political affiliation and enhance Zambian's potential to promote the goals of the wider African and international communities. In order to aim this mission statement effectively the university has different objectives by different schools and that the university has the responsibility to marshal and manage the necessary resources. The key objective of the university is to teach, undertake appropriate research and to render services to the public. Its activities include giving instructions, research and extension programmes (UNZA, 2005).

1.3 STATEMENT OF THE PROBLEM

In today's world, the proper management of knowledge economy has become an integral facet of organisational success. Higher Learning Institutions' success is highly dependent on the successful transition of knowledge from lecturers to students. The University of Zambia (UNZA) as an institution has different individuals coming from different background hence one may say they share knowledge differently. Through many different studies have been done in the past (Boham, S.T, Wansley, A.K.P and Gettier, E.L) relating to knowledge sharing of individuals, and important advances have been made, a research gap can be noticed. There is little or no study work done on the subject matter in Zambia's Higher Learning Institutions. From the university of Zambia it is a similar scenario in that there is less literature about the knowledge related studies especially knowledge sharing among students. This has led to the under-utilisation and appreciation of knowledge sharing as a potential driver of academic innovation and advancement. Therefore this seeks to contribute to the body of knowledge about knowledge sharing in Zambia's Higher learning Institutions.

1.4 OBJECTIVES
Main Objective

- The main objective of this study is to examine the knowledge sharing practice among LIS students at the University of Zambia

Specific Objective

- To find out the factors that influence knowledge sharing among LIS students.
- To establish the knowledge sharing activities practiced among LIS students.
- To find out the barriers to knowledge sharing among LIS students.

1.5 RESEARCH QUESTIONS
Overall Question

- To what extent is knowledge shared among LIS students?

Specific Question

- What are the factors that influence the sharing of knowledge among LIS students?
- What knowledge sharing activities are practiced among LIS students?

- What are the barriers to knowledge sharing among LIS students?

1.6 ETHICAL CONSIDERATIONS

Ethics refers to the appropriateness of your behavior relation to the rights of those who become a subject of your work or are affected by it (Saunders, 2009). This research was based on the voluntary participation of respondents. Hence ethical consideration was highly observed, therefore the respondents were not forced to take part in the research. The research ensured that the respondents were sensitised on the procedures of the research, for instance they were assured that the questionnaire did not include any information that reviewed their identities. By doing so this allowed respondents to answer freely to the research questions. The research ensured confidentiality in the information that was provided by the respondents this was so by not including real names of the respondents. The research also put into consideration the privacy of the respondents by supplementing their real names with aliases in order to protect them.

A letter of approval and recommendation was obtained from the University of Zambia Ethic Committee. This is because according to Chapter 1 of the laws of Zambia (constitution) it is their fundamental and constitutional rights for every person to decline to participate in any activities including research. For this reason, participants were presented with a letter of consent which stated ethics such as the confidentiality which was exercised through the entire research. The respondents were briefed about the purpose of the research and the information gathered was not used for any other purpose aside from its intended academic usage. Furthermore, works done by other scholars were acknowledged during the course of the research.

1.6 Significance of the Study

There is little information known on this subject matter and more especially among students in higher learning institutions in Zambia, this study will contribute to the pool of available knowledge on the extent to which knowledge is shared among LIS students. This study was important because knowledge is believed to be the driving force of a knowledge economy, therefore, the way knowledge is shared, created and managed could lead an organization to either a competitive advantage or demise. Universities are considered to be the transmitters as well as the generators of new knowledge, however, one way of increasing their knowledge bank can be

through knowledge sharing. Knowledge sharing is essential in a learning institution as it helps students to grow and get motivated to generate new ideas, retain knowledge and increases productive in school work. It also builds students confidence, for instance, in group discussions. There are many ways in which knowledge can be shared, through workshops, conferences, seminars, debates, group discussions, social interactions and many other. On the other hand, literature showed their challenges which are faced during knowledge sharing such as lack of trust, incentives and a poor culture of learning. The limitations that will be established will help the student populace and management come up with ways of solving challenges identified. This study was very significant as it found out the extent to which knowledge was shared among LIS students at the University of Zambia.

1.8 DEFINITION OF KEY TERMS

Knowledge Management: Knowledge management is about making the right knowledge available to the right people. It is about making sure that an organization can learn, and that it will be able to retrieve and use its knowledge assets in current applications as they are needed. It is the coordination and exploitation of organizational knowledge resources, in order to create benefit and competitive advantage (Drucker 1999).

Information: Information refers to facts, ideas, and imaginative works of the mind and data of value which is paternally useful in decision making, question answering, problem solving and all that which reduces uncertainty.

Knowledge: According to Morris (1938) Knowledge is structured and organized information that has developed inside of a cognitive system or is part of the cognitive heritage of an individual. In other words, knowledge is defined as that involves both data and the relationships among data elements or their sets. This organization of data based on relationships is what enables one to draw generalizations from the data so organized, and to formulate questions about which one wishes to acquire more data. That is, knowledge begets the quest for knowledge, and it arises from verified or validated ideas (Sowell, 1996).

Tacit Knowledge: Tacit knowledge refers to non-codified and often personal/experience-based knowledge. It is that knowledge which is difficult to transfer or verbalise, it is that which is embedded in human minds.

Explicit Knowledge: Explicit knowledge refers to codified knowledge, such as that found in documents, memos, reports etc. it is knowledge that is easily identified, articulated, shared and employed.

Knowledge Sharing: Knowledge sharing is the exchange of knowledge between and among individuals, and within and among teams, organizational units, and organizations this exchange may be focused or unfocused, but it usually does not have a clear a priori objective. Furthermore, knowledge sharing is an exchange of knowledge between two individuals: one who communicates knowledge and one who assimilates it. (Riege, 2007).

Higher Learning Institution: Higher learning institution comprises all post-secondary education, training and research guidance at education institutions such as universities that are authorized as institutions of higher education by state authorities**.** It includes all the activities a given country deems to be higher education; not only those that take place within ordinary universities and graduate schools, but term education and training courses (universities, junior colleges, and various forms of technical specialty schools) that are 2-3 years in length, and even correspondence courses that make use of information technology and are targeted at a broad population of students (Barnett, 1990).

CHAPTER TWO
LITERATURE REVIEW

2.0 OVERVIEW

This chapter will look at some of the previous literature available on knowledge sharing in higher learning institutions. Literature review is an objective, critical summary of published research literature relevant to a topic under consideration for research. Its purpose is to create familiarity with current thinking and research on a particular topic, and may justify future research into a previously overlooked or understudied area (Nabuyanda, 2011). The themes that will guide this literature review are knowledge, knowledge management and knowledge sharing, factors that influence knowledge sharing, knowledge sharing activities and the barriers to knowledge sharing.

2.1 KNOWLEDGE, KNOWLEDGE MANAGEMENT AND KNOWLEDGE SHARING

Knowledge is considered as one of the most strategically important resources in an organisation. Effective management of an institution's knowledge is one of the major issues facing organisations today. According to the most widely accepted definition, knowledge is "justified true belief". This is supported by the fact that both knowledge and belief can have the same objects and that what is true of someone who believes something to be the case is also true, among other things, of one who knows it. Two types of knowledge are usually defined, namely "explicit" and "tacit" knowledge. The former refers to codified knowledge, such as that found in documents, while the latter refers to non-codified and often personal/experience-based knowledge (Davenport & Prusak, 1998).

Knowledge management is about making the right knowledge available to the right people. It is about making sure that an organization can learn, and that it will be able to retrieve and use its knowledge assets in current applications as they are needed. It is the coordination and exploitation of organizational knowledge resources, in order to create benefit and competitive advantage (Drucker 1999). Also, Davenport & Prusak (2000) state KM is managing the corporation's knowledge through a systematically and organizationally specified process for acquiring, organizing, sustaining, applying, sharing and renewing both the tacit and explicit knowledge of employees to enhance organizational performance and create value.

Additionally, Leibowitz (2008) argues that knowledge management is fundamentally about making the right knowledge or the right knowledge sources (including people) available to the right people at the right time. Knowledge sharing is therefore perhaps the single most important aspect in this process, since the vast majority of KM initiatives depend upon it. He further contends that two fundamental concepts of knowledge management include tacit and explicit knowledge. The primary challenge in knowledge management is how tacit knowledge embodied in the minds of the researchers may be identified, utilised and shared for organisational use.

Knowledge sharing is an essential feature of knowledge management and encompasses making knowledge available for use within an organisation and transforming it to a form that can be easily understood and utilised by others within the organisation. Al-Hawamdeh (2003) asserts that knowledge sharing is the most important facet in knowledge management and more research should be dedicated to enhancing its effectiveness. It is defined as the process of exchanging knowledge (skills, experience, and understanding) among stakeholders. In addition, Knowledge sharing can be described as either push or pull. The latter is when the knowledge worker actively seeks out knowledge sources (e.g. library search, seeking out an expert, collaborating with a co-worker etc.), while knowledge push is when knowledge is "pushed onto" the user (e.g. newsletters, unsolicited publications, etc.).

Furthermore, knowledge sharing is also seen as the means of moving the knowledge from its source to the recipient (Sandhu et al., 2011). It is also defined by Chaudhry (2005) as the exchange of knowledge between two or more participants in a reciprocal process. Effective knowledge sharing involves being aware of the knowledge needs of participants. It makes knowledge available to others by utilising effective systems that act as a medium for knowledge transfer. Usually, it depends on the habit and willingness of the knowledge worker to seek out and/or be receptive to these knowledge sources. The right culture, incentives, and so on must therefore be present.

Knowledge sharing is a component of Knowledge Management (KM) and an important factor in the organizational work. Critical step in knowledge acquisition is knowledge sharing. A study done by Brown (1988) shows that students in learning communities are expected to be responsible of their education proactively by learning with both individual responsibility and

communal sharing. This idea suggests the importance and value of knowledge sharing among students.

2.2 FACTORS THAT INFLUENCE KNOWLEDGE SHARING

Knowledge sharing is a critical element for intellectual discourses. However, knowledge sharing is a demanding task that takes time and effort and requires students to be persistent and willing to interact with each other. Recognizing factors that impact knowledge sharing is important. In this research factors such as individual online interaction, technological availability, organizational structure, team work, social network and rewards and incentives have been reviewed.

2.2.1 Individual online interactions and social network
Ko et al., (2003) defines interactions as an occasion when two or more people or things communicate with or react to each other, interactions involve talking, looking, sharing, or engaging in any kind of action that involves two or more people. He further defines individual online knowledge sharing behaviour as "the online communication of knowledge so that knowledge is learned and applied by individuals''. Cabrera et al. (2006) and Lin (2007) have both found the individual openness to experience to be positively related to individuals' knowledge exchange. They suggest that individual's openness to experience is related to curiosity that drives them to seek others' ideas and insights.

Many researchers have noticed that ties among individuals within social networks can sustain knowledge sharing and enhance the quality of information received (e.g. Cross & Cummings, 2004; Hansen, 1999; Reagans & McEvily, 2003). Social interaction is complex and it is believed to be vital to human health both mentally and physically. People can express their feelings and share major life changes such as divorce and at the end knowledge is shared. The amount of relationships between members, direct ties and the strength of those ties seem to facilitate knowledge sharing and perceived helpfulness of the knowledge in virtual communities (Chiu et al., 2006; Wasko & Faraj, 2005). Chen (2007) has also noticed that expectation of maintaining and strengthening social ties by frequently participating has been found to positively affect individuals' intention to continue to participate in a community.

Ma and Yuen (2010) conducted a research on perceived online attachment motivation and perceived online relationship commitment. The study done above measured knowledge sharing

behaviour using a five items scale measuring behaviour that occur when learning takes place in an online context such as understanding, implicating and applying. This study shows that in such process both dimension of knowledge sharing is performed (sharing and seeking).

The results of this research shows that together, perceived online attachment motivation and perceived online relationship commitment explain 71% of the variance observed in online knowledge sharing behaviour. However, the three main findings of the study were;(a) perceived online attachment motivation had significant direct positive effect on online knowledge sharing behaviour, (b) perceived online relationship commitment had a significant direct positive effect on perceived online attachment motivation and (c) perceived online relationship commitment was fully mediated by perceived online attachment motivation and showed only and indirect significant effect on knowledge sharing.

2.2.2 Technology availability

While the human aspect is important, technological aspects also deserve consideration. Hendriks (1999) suggests that information and communication technology (ICT) may be helpful to enhance knowledge sharing. It could be done by lowering temporal and spatial barriers between knowledge workers, and improving access to information about knowledge. Cabrera and Cabrera, (2002) stated that modern information and telecommunication technology are available to support knowledge sharing across time and distance. However, it has limited value because it ignores when and how the quality of knowledge sharing will be enhanced. In line with that attitude towards the adaptation of new technology is a vital determinant to facilitate, encourage and support knowledge sharing among students (Bhatt, 2001; Brazelton and Gorry, 2003; Cabrera and Cabrera, 2002; Han and Anantatmula, 2007; Kim *et al.*, 2003; Riege, 2005).

For this reason, Kim and Jarvenpaa (2008) highlighted the importance of technological aspects to enable knowledge-sharing activities in an institution. Muhammad Sabbir Rahman (2014) in Wangpipatwong (2009) also found that technological support, sharing information and degree of competition play significant roles in influencing knowledge-sharing behaviour among the university students.

Yuen and Majid (2007) conducted research in Singapore and Wei et al. (2012) conducted a research in Malaysia to discover university students' knowledge-sharing behaviour. Both surveys found that students extensively used the Internet as a tool to share significant information. Nevertheless, the rapid advancement in distance learning and networking technology has enabled

students to exchange knowledge beyond time and space barriers of which they can learn effectively through sharing by questioning and explaining, (Soller, 2004).

In agreement with the findings of the study above another study done by Daka (2010) shows that lack of adequate infrastructure support and motivation were conditions identified by nearly 64% of the surveyed academician as the major hindrance to knowledge sharing. Daka (2010) further, state that infrastructure has to do with facilities and equipment needed for the sharing of knowledge. Awareness, accessibility to the ability to use infrastructure can help bridge the gap between that have knowledge and that need it.

2.2.3 Organizational structure

Organizational structure has shown to affect knowledge sharing. The r study done by Daka (2010) shows that lack of adequate infrastructure support and motivation were conditions identified by nearly 64% of the surveyed academician as the major hindrance to knowledge sharing. Studies suggest that organizations should create opportunities for students' interactions and the creation of enabling environments to facilitate knowledge sharing (Wang & Noe, 2010).

A functionally segmented structure seems to constrain knowledge sharing (Lam, 1996; Tagliaventi & Mattarelli, 2006), whereas a less centralized organizational structure (Kim & Lee, 2006), that is, use of open workspace, the use of fluid job descriptions and job rotation (Kubo et al., 2001), communication across departments and informal meetings (Leibowitz, 2003; Leibowitz & Megbolugbe, 2003; Yang & Chen, 2007) has been shown to encourage interaction and knowledge sharing. Also Haldin-Herrgård (2000) emphasizes the importance of face-to-face interaction for the diffusion of tacit knowledge.

Mohrman (2003), in a study conducted on designing work for knowledge based competitions, found out that institutional design with lateral linkages across functions, geographical locations, departments and other institutions can be created by students working closely with other students in sequence of assignments on the series of projects rather than stable, individualized work with concrete tasks. Riege (2005) emphasizes that in flat organizations, with communication flows that are not restricted in one direction, knowledge sharing is more likely to occur.

2.2.4 Team Work

Team work has altogether been shown to increase knowledge sharing. Institutions designed around team work makes students work closely with others and, therefore, encourages knowledge sharing (Cheng, 2009). Kang et al. (2007) believes that cross-functional teams are especially useful for encouraging the creation of ties with students from different groups. Achieving positive results requires that team members seek and share information with others (Noe et al., 2003).

There are only a few studies exploring team characteristics in relation to knowledge sharing willingness and actions. Those few found out that the longer the team has been formed and the higher the team cohesiveness the more likely the team members are to share knowledge (Bakker et al., 2006; Sawng et al. 2006). The agreeable and extrovert team communication styles have also found to be positively associated with knowledge sharing willingness and behaviours (de Vries et al. 2006) and the empowering leadership has been found to foster knowledge sharing among team members (Srivastava et al., 2006).

The minority status or diversity of team members has found to be related to knowledge sharing. In Ojha's research (2005) which aimed at exploring the impact of team demography on knowledge sharing in software project teams in south Asian countries, discovered that team members who considered themselves a minority based on gender, marital status or education were less likely to share knowledge with team members. Sawng et al. (2006) found out that R&D teams with higher female-male ratios were more likely to engage in knowledge sharing. Regarding study conducted by Thomas-Hunt et al. (2003) socially isolated members of the team are more likely to disagree and contribute their unique knowledge within others. Also, in functionally diversified teams the acknowledgement of team members' expertise helps to increase participation in knowledge sharing (Thomas-Hunt et al. 2003).

2.2.5 Rewards and Incentives

The empirical results of the relationship between rewards or incentives and knowledge sharing have been mixed. Even though it is common believe that incentives, including recognition and rewards, facilitate knowledge sharing, especially the effects of extrinsic rewards, it has been challenged in the recent research (Bock et al., 2005; Kwok & GAO, 2005; Lin 2007c). Cabrera and Cabrera (2005) warn that there may be some danger in using financial rewards to encourage

knowledge sharing, as they can be perceived as controlling and in some cases shown to diminish creativity. Instead O'Dell and Grayson (1998) argue that intrinsic rewards, such as recognition, may be more effective than extrinsic rewards for engaging employees in knowledge sharing activities. Another reason to avoid extrinsic rewards is their tendency to create competition among employees (Cabrera & Cabrera, 2005).

Instead, it has been shown that group-based and co-operative incentives and reward systems affect knowledge sharing positively whereas individual and competitive reward systems and incentive have an opposite effect (Ferrin & Dirks, 2003; Quigley et al., 2007; Taylor, 2006). Also Kang et al. (2007) state that appraisal and incentive systems based on group or firm performance and stock ownership programs will reinforce collective goals and cooperation.

2.3 KNOWLEDGE SHARING ACTIVITIES

Knowledge-sharing activities should improve access to information, ease communications with colleagues, and encourage participation in learning and decision-making communities. In this study, knowledge sharing activities refer to undertakings that enhance or improve the sharing of knowledge among stakeholders (Yuen & Majid, 2007). The application of a single knowledge-sharing strategy may not be able to accomplish all of these objectives, but if additional knowledge sharing is planned for the future, it may be helpful to consider which objective should be accomplished first. Sometimes, a choice must be made between the most important objectives and others must be left to be pursued later.

Knowledge management involves activities that focused on capturing knowledge, and disseminating it accurately, consistently, concisely and in a timely manner to all who need it (Gupta & Govindarajan, 2000).. Therefore, it requires the students to share their experiences and personal interpretation of information in order to be successful. Many courses now require students to engage in assessed group activities at least once during their candidature. The importance of group-based activities stems primarily from the fact that, despite the benefits it bestows upon the individual, learning is an inherently social activity (Heathfield, 1999). The primary objectives of such group activities are the development of teamwork and communication skills. Furthermore, group assessment helps create a professional identity in students (Heathfield, 1999). For instance, take the case of engineering students who build models of bridges or buildings in groups; the activities involved in the process such as planning, the division of tasks, writing up a report describing the process and presenting the finished model to the class all

contribute towards the development of these students' professional identities as engineers. Any activity that is part of this teaching program and assessment is formal knowledge sharing as such activities are regulated by teaching staff and mandatory for the students involved. The ultimate objective of such programs is to give students a competitive advantage in the workplace through the communication, teamwork and planning skills they acquire by undertaking such activities.

Nevertheless, group assessment, and other non-assessable group learning activities, pose a number of challenges for students, and academics need to take these matters into account when designing courses and assessments. Despite being enrolled in full-time, internal courses, many students have difficulty attending classes on a regular basis, often due to work or other commitments, which makes it difficult for students to meet the demands of group work effectively. As suggested by Bloxham and Boyd (2007, p. 58), academics need to take these issues into account and set aside time in classes for students to work with their groups and also facilitate group communication through suitable e-learning technologies such as discussion boards and wikis.

2.3.1 Lectures and Presentations

Lectures and presentations may be particularly appropriate for sharing theoretical knowledge, large numbers of participants can usually be accommodated, particularly when there are minimal interactive elements. According to Ugochi et al. (2013), who conducted a research to examine the knowledge sharing behaviour of postgraduate students in University of Malaya, found that knowledge is considered to be highly valuable and hence tends to be shared more unreservedly among students during academic activities like class sessions. However, this can be achieved on a condition that an opportunity or a conducive environment is created to allow this sharing by the lecturer.

Ugochi et al. (2013) further notes that The Canadian Health Services Research Foundation offers the following recommendations for preparing and delivering research presentations. When preparing a presentation they recommend that one Identifies the area of impact where the research is applicable, Construct an appropriate message for that particular audience, Think about the context in which the message will be received, Create a "no surprises" environment by engaging the audience early in the research process. And During a presentation they recommend that one Explains "why are we here?" as soon as possible, Use plain language and state key

messages up front, Focus on the implications of research, Be honest about the research limitations and generalizability of the Findings, Establish credentials of researcher(s)/presenter(s) briefly, Use humor, energy, and style when appropriate.

Leon (2011) on the other hand notes that Less common than workshops, lectures, and presentations, conversation sessions (also known as consultation sessions), are beginning to appear at conferences. A conversation session, typically one to two hours long, consists of a short presentation on a specific topic, followed by a discussion involving all in attendance. In June 2006, CUP hosted a conversation session at the Canadian Psychological Association convention, held in Calgary, Alberta. The session was about knowledge-sharing barriers, with a particular focus on how these barriers may be overcome. Six attendees participated in addition to the facilitator. After a brief presentation about CUP's knowledge-sharing activities, a lively discussion ensued on knowledge sharing experiences and approaches.

A conversation session at a large conference may bring together individuals from diverse backgrounds that may otherwise not have found another. Such sessions may be a promising knowledge-sharing strategy that warrants further attention as a possible approach at conferences.

2.3.2 Academic Games and Informal Social Events

Games create excitement around learning and knowledge sharing. They help to promote teamwork, strengthen relationships and breakdown complex systems into manageable pieces of information that can be easily understood. Examples of games include; debates, quiz shows, games where points are gained for completing tasks and contests that involve challenges are all examples of games that can be used for learning and knowledge sharing. Whatever the format, it is important the objectives are meaningful, rules and timelines are clear, and learning is captured and shared (Chaudhry, 2005).

Informal social events can be considered to be a vital activity that fosters or facilitates mutual understanding, trust and respect which are essential factors of successful sharing of knowledge (Cheng et al, 2009). A study conducted by Ting and Majid (2007) on knowledge-sharing patterns of undergraduate students in Singapore, recommended that academic institutions should make efforts to foster cordial relationship among students through providing ample interaction opportunities through organizing informal social events.

2.3.4 Community of Practice

Knowledge in its nature, is both social and individual, forming a group thus promotes learning and innovation. According to De Merode (2000), creating a community of practice (CoP) is a way to share your knowledge with others who are passionate about the same topic. In return, you learn from their knowledge and experience. CoP members freely discuss the various situations they face. Moreover, a community of practice can be an effective way of supporting learning across your program, organization or between organizations. They share their aspirations, identify their needs, and as well as develop a unique action-oriented perspective. Together, they discuss, innovate and develop a common practice in their field.

Leon (2011) further notes that Communities of practice convene a group of people to facilitate the strengthening of relationships and the ongoing sharing of experiences and knowledge in a particular practice area. In a study done by Kift et al. (2010) on Transition pedagogy: A third generation approach to FYE - A case study of policy and practice for the higher education sector, found that Technology has made it easier to link members of a community of practice across organizations, countries, and time zones to accomplish work collaboratively, solve problems and learn from one another. Leon (2011) states that starting a community of practice (CoP) can be an effective way of supporting learning across your program, organization or between organizations. Keep in mind that communities evolve over time and building a community of practice requires investing time and energy. Over time, the needs of the community might shift or require a response to emerging challenges. Be flexible and adapt as the needs of the community change.

They further outline some best practices for starting and growing a CoP and include; Defining the purpose of your community, Identifying and reach out to potential members, Determining the knowledge and experience your community has and needs, Defining roles and responsibilities, Selecting tools and technologies, Establishing a rhythm of activity, Building a sense of community and Raising awareness of your community.
All in all Communities of practice often require participants to have some face-to-face time to help establish a sense of connection and community. Reoccurring webinars, an open group Skype chat, and establishing an online discussion forum or a listserv are excellent ways to keep members connected between face-to-face encounters. Establishing a listserv, chat, or discussion

forum in and of itself is likely to flounder if there is not a dedicated community organizer seeding discussion and stimulating conversation among group members on a regular basis.

2.4 BARRIERS TO KNOWLEDGE SHARING

Despite the growing significance of knowledge sharing practices for organizations competitiveness and market performance, several barriers make it difficult for KM to achieve the goals and deliver a positive return on investment. The barriers to knowledge sharing according to Salisbury (2003) are divided into three categories that is: personal, organizational and technological barriers.

2.4.1 Personal Barriers

In this research Personal barriers will be regarded as limitations that are caused by mostly, individual's behaviour, attitudes, norms, values etc. These limitations tend to influence the way individuals share knowledge. For instance, people generally lack the time to share knowledge and time to identify colleagues in need of specific knowledge. This specifically can be linked or seen in Smith and Mckeen (2003) who argue that people are overloaded with more than enough that they have little time or no time at all to engage in knowledge sharing. While there has been debates about the existence of the overload (Davenport, 1994)

Also, apprehension of fear that sharing may reduce or jeopardise people's job security, lack of trust in people because they misuse knowledge or take unjust credit for it and lack of trust in the accuracy and credibility of knowledge due to the source. These are other personal Barriers that were summarized as luck of trust among colleagues by Daka (2010). However, in the research of Davenport (1994) it was found that 80% of respondents said there was luck of trust as the main hindrance to knowledge sharing but Daka's research findings seem to be contrary different from Davenport in that Daka found that luck of motivation and infrastructure were the main hindrance. Which is which? It is not known hence the study. Daka further notes that because of luck of trust there is dominance in sharing explicit over tacit knowledge. Additionally, poor verbal/written communication and interpersonal skills, age differences, gender difference, lack of social network, differences in education levels and differences in national culture or ethnic background were also noted to be knowledge sharing barriers. This research aims to explain further on these barriers as empirical study is knowledge.

Furthermore, others personal barriers as noted by smith and Mckeen (2003) include differences in experience levels and lack of contact time and interaction between knowledge sources and recipients. Nabuyanda (2011) in her study on the factors inhibiting promotion of a reading culture on a case study on basic libraries schools in Lusaka agrees with this statement in her research as it was found that students have a poor reading culture because they did not visit or use the library as the library is said to be the source of knowledge.

2.4.2 Organisational barriers

Organizational barriers in this research will be regarded as those limitations that prevent the organization from sharing knowledge effectively. Among these barriers includes the organizational structure which will comprise of many types of structures such as the formal structure, informal structure etc., each structure has its own characteristics relating to the purpose of the structure, who belongs and what holds the structure together (Wenger et.al,2002). These by and large have an influence on how knowledge flows and by what means. Higher learning institutions tend to be distributed organization with loosely connected department/ units, each with its own way of doing things. Thus depending on hierarchical structures and rules governing, knowledge flow in one part of the organisation may vary from the others as may inter departmental knowledge flow.

Lack of transparent rewards and recognition systems that would motivate people to share more of their knowledge is another organisational barrier. Daka (2010) notes in her research findings that the major hindrance to knowledge sharing was luck of motivation which she termed as motivators.

McManus & Longbridge (2002) further found that the idea of motivators was closely associated with individual efforts. They found that there was a perception among academicians that they were rewarded on the basis of their individual efforts, rather than collaborative efforts where tasks and responsibilities resulted in knowledge sharing. This perception is reinforced in higher learning institutions where employees are rewarded solely for individual achievements. One however is inclined to view this perception as a contradiction of the behaviours that the motivators were meant for that is to encourage the sharing of knowledge. The extent to which students hold this perception or not is not known hence the study.

Moreover, other organisational barriers to knowledge sharing include among others lack of leadership and managerial direction in terms of clearly communicating the benefits and values of knowledge sharing practices, deficiency of company resources that would provide adequate sharing opportunities and communication and knowledge flows are restricted into certain directions e.g. top-down (Smith & Mckeen, 2003).

2.4.3 Technological Barriers

The use of knowledge sharing tools such as information communication Technologies (ICTs) largely enhance knowledge exchange. Liang et al. (2008), in their study of whether the social exchange model could be used to explain individual knowledge sharing behaviour, found that ICTs played a considerable moderating role in interpersonal factors such as one's commitment to the organisation, his social interaction as well as his trust.

However, Osunade et al. (2007) in a study on internet for knowledge sharing usage among academicians in Nigeria, found that besides e-mail and searching for topical information, very little use was made of other internet facilities. Thus the sharing of knowledge features available on the internet were not utilised. Similarly some scholars have expressed concern over misplacement of ICTs in higher learning institutions saying that them alone cannot or are insufficient to bring about knowledge sharing and that it can only be fully understood if it is related to the motivation of knowledge sharing.

All in all the technological barriers can be said to include: lack of integration of IT systems and processes impedes on the way people do things; lack of technical support (internal and external) and immediate maintenance of integrated IT systems obstructs work routines and communication flows; unrealistic expectations of employees as to what technology can do and cannot do; mismatch between individuals' need requirements and integrated IT systems and processes restrict sharing practices; reluctance to use IT systems due to lack of familiarity and experience with them; lack of training regarding employee familiarisation of new IT systems and processes; lack of communication and demonstration of all advantages of any new system over existing ones(Rowley, 2000).

SUMMARY

In conclusion, knowledge and how it is managed has become a vital source of competitive advantage in today's world. Yet, for it to be fully appreciated it ought to be shared. In fact, in

higher institutions of learning, the core business is to impart knowledge on its students. And students may have to share this knowledge among themselves in order to benefit fully from it. Research studies have shown that certain factors such as individual online interactions, technology, organisational structure, team work and social norm influence the sharing of knowledge. And also there are certain activities that foster the sharing of knowledge. These include academic games, informal social events, community of practice and lectures and presentations. Furthermore, barriers such as personal, technology and organisational barriers affect this sharing.

CHAPTER THREE
METHODOLOGY

3.0 OVERVIEW

The chapter will discuss the methodology employed in this study. It present details relating to the type of research design used in the study, population, sample size, sampling procedure and data collection instruments and data analysis process.

3.1 RESEARCH DESIGN

A research design is used to structure the research, to show how the major parts of the research work together to address the central research questions (Creswell, 2014). Additionally, Thyer (1993) states that a research design is a blueprint or detailed plan of how a research can be conducted. Thus, in this research study a mixed method approach was used. It combined both qualitative and quantitative methods. On one hand, quantitative method involves numerical measurements which comprises various types of data collection tools such structured questionnaires. On the other hand qualitative research makes use of non-numeric data such as words. The reason for choosing a mixed method was for the purpose of ensuring that the weakness of the qualitative methods were covered by the strengths of the quantitative method.

3.2 POPULATION

The population of our interest constituted only third and fourth year registered students from the LIS department school of education who were 260 in total. This study excluded all students who were not from the LIS department in order to avoid risks of untimely, unrealistic, unwanted outcomes and unachievable objective. The information on knowledge sharing in higher learning institution will be acquired from LIS student.

3.3 SAMPLE SIZE

Sampling refers to methods of gathering information from a number of chosen people randomly or purposefully (Kombo and Tromp, 2006). In this study, the sample size was 50 respondents representing 19% of all third and fourth year LIS students from the University of Zambia. This size was large enough to give researchers a good representation of target population.

3.4 SAMPLING PROCEDURE

The sampling procedure used in this study was purposive sampling. Purposive sampling is a non-probability sampling technique were a sample is selected based on characteristics of a population

and the objective of the study (Huberman, 1994). This sampling procedure was used in order to select only third and fourth year LIS students at the University of Zambia who assisted in providing relevant information to our research. Then the research used random sampling because it is said that it provides each potential participant with an equal chance of been selected.

3.5 INSTRUMENTS OF DATA COLLECTION
One kind of Instrument of data collection that was used in this study is the self-administered questionnaire. This instrument was used as it is assumed that the respondents are literate. Being self-administered, was seen as an appropriate way of avoiding or minimizing biasness due to personal characteristics of the interviewer as the cases might be with interviews. Additionally, the questions in this study required quick and accurate responses. As a result, closed-ended questions were used to avoid biases by the researcher and for easy analysis. However, the researchers used open-ended questions for the purpose of obtaining more clarity and insight. This was ideal for the mixed method nature of this research.

3.6 DATA ANALYSIS
The analysis of the collected data was presented both qualitatively and quantitatively. A software called Statistical Package for Social Sciences was used to analyse collected data. It involved coding the responses collected from the participants. MS Excel was also used to present data using pie and bar charts. Open ended responses were analysed by identifying emerging themes narrating them with the help of MS word.

3.7 LIMITATIONS
The study was unable to sample students from all programs due to time, resources and the large number of students which would have been to huge to handle by the research team. Also, the study was limited to only regular full-time registered 3rd and 4th year LIS students hence the results are not representative of other students under distance and parallel mode of study**.**

3.8 SUMMARY
This chapter has presented the methodology used in this study as far as the sample, design, data collection and analysis are concerned. The study used a mixed method approach of research. It sampled third and fourth year students purposively and the sample size was 50 participants. A structured self-administered questionnaire was used a data collection tool and analysis was done with the help of SPSS, MS Excel and MS word

CHAPTER FOUR

PRESENTATION OF FINDINGS

OVERVIEW

This chapter presents the research findings of the data collected on knowledge sharing among third and fourth year LIS students of the University of Zambia. This presentation will be arranged according to research objectives and questions set out in chapter one.

Of the 50 questionnaires distributed, 46 were returned and accepted, 3 were rejected due to errors. For instance, in one questionnaire the respondent answered differently from what the questions asked and in others the respondents just answered the background questions which were not complete hence were not helpful in our findings and 1 was lost.
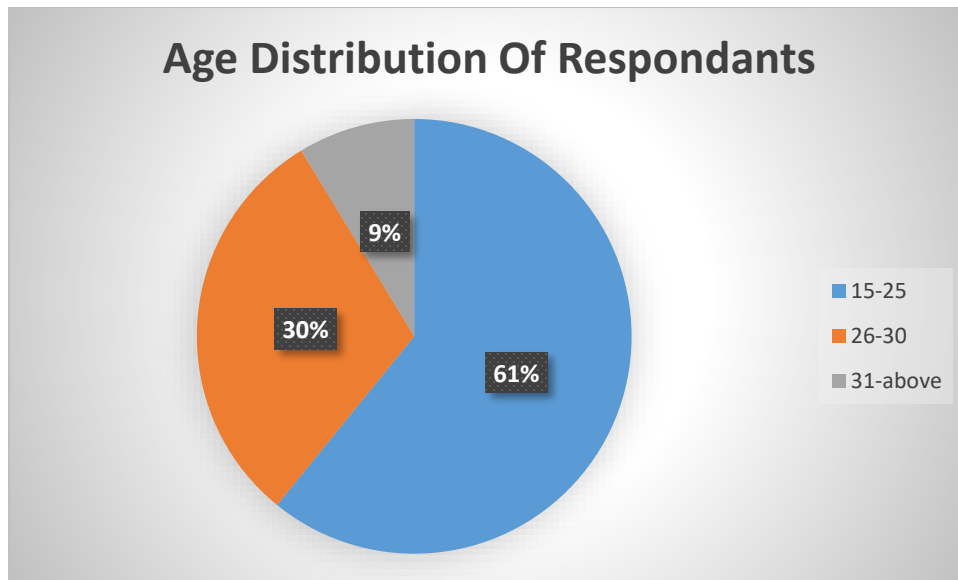
4.0 Background Information

Figure 1. Shows the age distribution of 46 respondents.

The respondents were ranging from the age group 15-31 years. The age from 15-25 was represented by 61%. This means that most of the respondent were from this age group as shown in the pie chart above. While on the other hand the age group 26-30 was represented by 30%. Lastly the age group 31-above was represented by 9%.

Of the 46 participants, 20 were male representing a percentage of 43% and 26 were female which accounted for 57%. Respondents were grouped in three categories which are single, married and divorced. It was found that 83% represents those who are singles this means that

these were the majority respondents recorded. 15% were married and they were the second majority and lastly 2% represents those who are divorced.
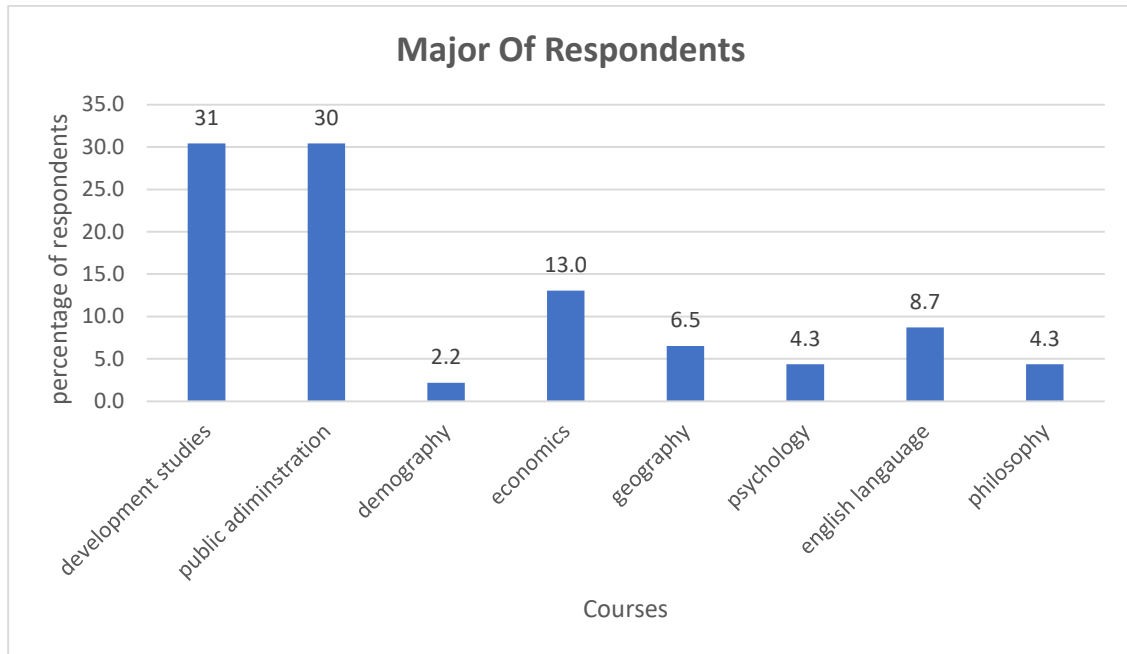

Figure 3. Shows distribution of respondents major of study.

The pie chart above has shown that 31% of respondents were development studies majors and were the majority followed by public administration majors with 30% representation. Other majors include economics with 13%, English language 9%, geography 7%, philosophy and psychology all at 4% and lastly 2% of them were demography majors. Concerning the year of study, 73% of the respondents were fourth years while 23% were third years.

4.1 Factors influencing knowledge sharing
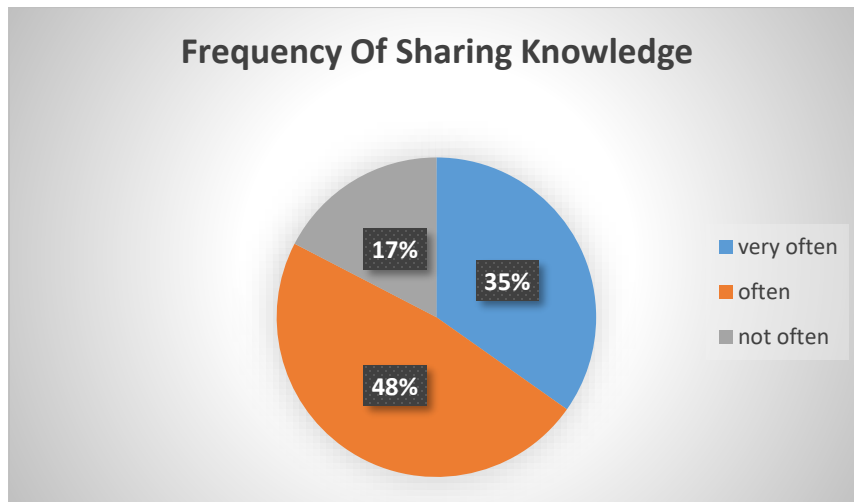
4.1.1 Familiarity with Knowledge Sharing

Figure 4: frequency of sharing knowledge

The respondents were asked if they were familiar with the term 'knowledge sharing' and 100% of the answered questionnaire responded in affirmative. Then they were asked if they do share knowledge; 96% percent said yes and 4% said no. Also, those who share knowledge were asked about how often they shared their knowledge. 48% responded that they do it often, 35% said very often and 17% said not often as shown above in figure 4.

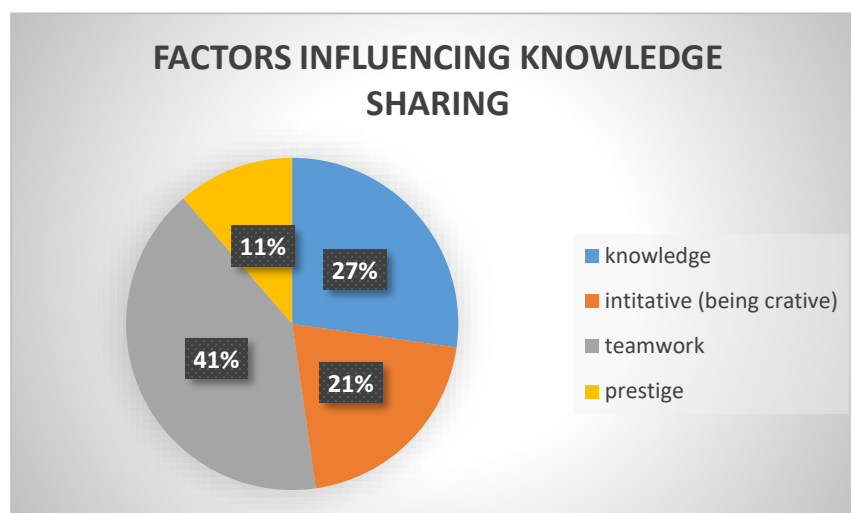### 4.1.2 Factors that influence knowledge sharing

Figure 5: factors influencing knowledge sharing

Respondents were asked what they thought were some of the things that affect knowledge sharing. 41% of the sample thought teamwork is a major factor that affects the ability to share knowledge. 27% said what you know may affect your decision making in terms of whether or not knowledge can be shared. 21% thought initiative was a determining factor and 11% were of the view that prestige is a factor. This has been shown in the figure above.

4.1.3 Knowledge Sharing and Technology

Participants were asked about the use of technologies to share their knowledge with other students. 89% of those who engage in knowledge sharing indicated they use modern technologies such as WhatsApp, Facebook, and LinkedIn to share knowledge, whereas 11% said they did not.

Among those who used the Morden technologies, WhatsApp accounted for 60% of them and Facebook usage was at 15%. Others include Email at 10%, 8% use twitter, blogs and a virtual community of practice (when students collaborate an online platform)accounted for 2.5% each and 2% use of forms of technology like WIKIs.

4.2 Knowledge Sharing Activities

Prefered Knowledge Sharing Activities

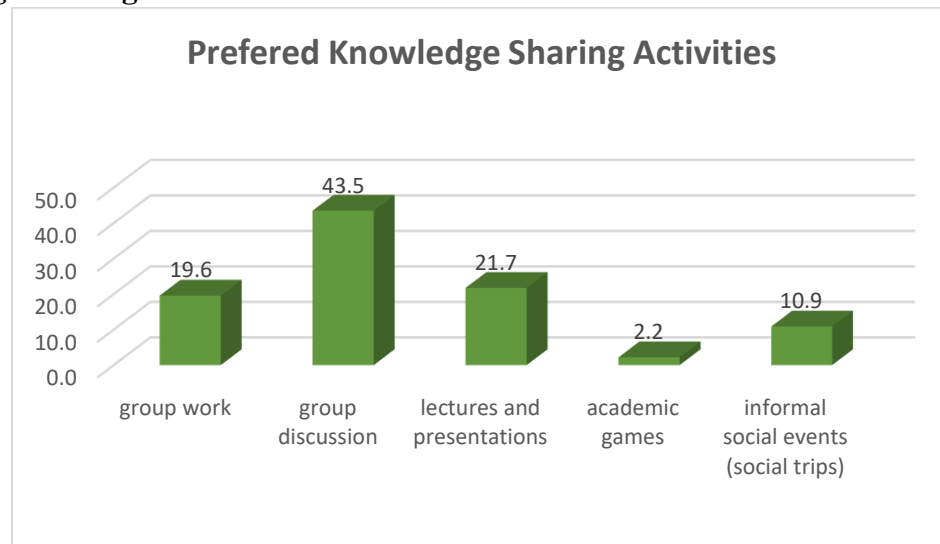|	
group work	19.6
group discussion	43.5
lectures and presentations	21.7
academic games	2.2
informal social events (social trips)	10.9

Figure 6: Activities that enhance knowledge sharing

Respondents were requested to give their thoughts about what activities make it easy for them to share knowledge and the following were the answers. Majority thought group discussions are a

good activity to share knowledge and accounted for 45%, lectures and presentations were the second most preferred activity with a representation of 22%, 20% preferred group assignments/work, 11% thought informal social events where a better platform to share knowledge and the least preferred activity was academic games with a percentage of 2 as illustrated by the pie chart above.
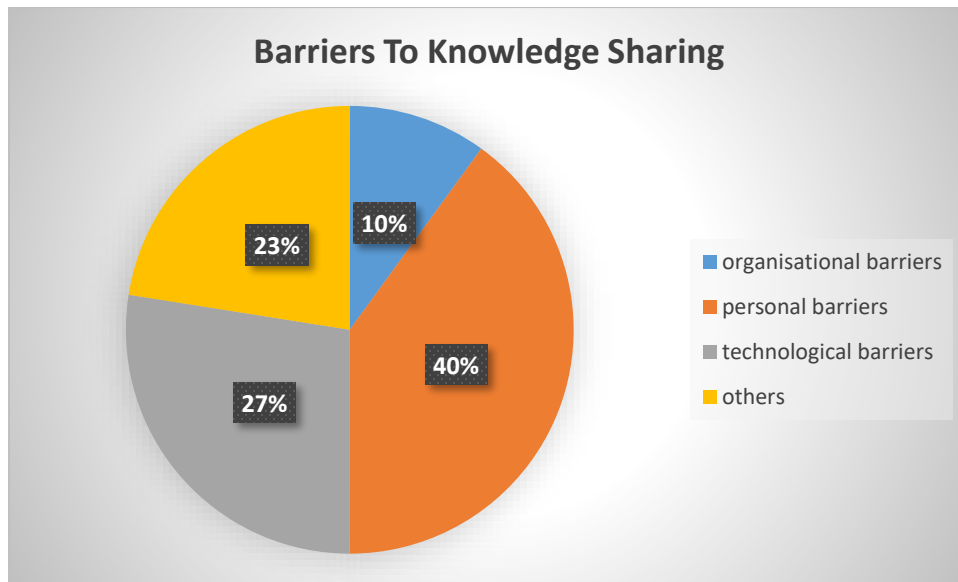
4.4 Barriers to Knowledge Sharing

Figure 7: Limitation to Knowledge Sharing

Concerning barriers or limitations of knowledge sharing as shown in the figure above; a total portion of 40% of the participants cited personal related barriers as main limitation, 27% cited technological barriers, 23% had other limitations and 10% thought organisational barriers.

Concerning the questions of what were the solutions to the limitations, majority of the respondents were of the view that management should emphasize the value of sharing knowledge to all students and should in effect improve teaching methodologies to a level were more platforms of sharing knowledge are created for example respondent number 20 suggested that "an increase in confidence building activities and platforms is share knowledge should be enhanced in the universities teaching practices". Additionally another respondent was of the view that "lectures should provide means to motivate students to share knowledge by stressing the importance of the practice of sharing knowledge. Another prominent solution that was

suggested was a call to improve technology based services and facilities for instance respondent number 8 called for "improvement and proper maintenance of the institutional wireless services like Eduroam". Further, creating incentives for knowledge sharing was also suggested as a solution as it will motivate students to share what they know. In line with this suggestion, one of the respondents noted that "providing rewards to those who share knowledge would motive or intense students to do it more often".

4.5 Summary

This chapter gave a presentation of the research findings. Research data was collected from a total number of 46 participants. It was interesting to discover that 41% of the sample thought teamwork was a major factor influencing knowledge sharing in school. In addition, the study revealed that majority of the sample use technology to aid their sharing of knowledge. Of all the technological platforms, WhatsApp was the major platform accounting for 60%. When asked about their preferred activities that enable them to share knowledge, group discussions was the most preferred activity with 44%. Furthermore, the study reveals that the major knowledge sharing barrier among LIS students were personal barriers like beliefs, values and one's norms. The next chapter will go on to discuss these findings.

CHAPTER FIVE
INTERPRETATION AND DISCUSSION OF FINDINGS

5.0 Overview

This chapter presents the interpretations and discussion of the research on knowledge sharing in higher learning institution. The presentation is arranged according to the research objectives and questions as set in chapter one. Based on the findings, the research will draw a conclusion. It will then make recommendations with regards to areas requiring further research.

These research findings are of great importance because, together, they provide a picture that would help to determine the extent to which knowledge is shared among LIS students. The interpretations and discussions thus seek to address the research objectives in light of these findings.

5.1 OBJECTIVE ONE: TO FIND OUT THE FACTORS THAT INFLUENCE KNOWLEDGE SHARING AMONG LIS STUDENTS.

The concept of sharing knowledge is well understood among LIS students, this can be seen in that 100% of those surveyed showed that they are familiar with the term "knowledge sharing", of which when asked if they do share knowledge; 96% percent said yes and 4% said no. Also, those who share knowledge were asked about how often they shared their knowledge. 48% responded that they do it often, 35% said very often and 17% said not often. The findings of this research are similar to Daka (2010) research findings which showed that there is evidence of great awareness concerning Knowledge sharing and its importance among academicians in higher learning institutions in Zambia. By and large this implies that students appreciate and attach great value to the concept of knowledge sharing. Also this can be seen from the majority of them who share what they know very often.

Sharing of knowledge is influenced by various factors. In carrying various tasks and activities, students engage in a lot of interactions which leads to knowledge sharing. A number of researches have advanced a number elements that affect the sharing of knowledge in Higher Learning Institution. Individual online interaction, technology, organisational structure, teamwork, social networks and incentives identified as some of the factors.

The research findings indicate that teamwork was the major influencing factor with 41% of the respondents saying so. It has been established that that teamwork has the ability to facilitate the smooth flow of knowledge in higher learning institutions. This is so because of the nature of

learning employed by the institution which puts knowledge transfer at the heart of its mandate. It is therefore cardinal that institutions introduce, embrace and improve the academic curriculum that incorporates and encourages teamwork spirit. These findings are in line with a study conducted by Cheng (2009) who acknowledges that institutions which are designed or built around teamwork tend to drive students to work with one another which consequently motivate the sharing of knowledge.

Additionally, the second most influencing factor among the respondents was level of knowledge with 27% of the respondents who were for the view of "What you know" and 21% thought initiative was a determining factor. Respondents expressed that the amount of knowledge they possess tends to influence their willingness whether or not to share knowledge. It can be deduced from this that the more things one knows about a particular topic, the more eager they are to share knowledge. This is similar with a study done by Ong et al., (2009) on factors influencing knowledge sharing among undergraduate students. Ong establishes that students are likely to share knowledge if they feel they know a great deal about a subject under discussion.

In addition, this study also reveals that prestige was the least influencing factor of knowledge sharing were 11% of the respondents were of the view that prestige is a factor. This implies that one's social standing or reputation or success has little bearing on one's desire to share what they know. This could be due to what is known as "power politics" where those with knowledge want to hold on to it as a means of achieving "competitive advantage" over those that do not. This is contrary different from Daka's (2010) study which found that there was a relationship between knowledge sharing and educational qualifications (academic success).

5.1.1 TECHNOLOGY AS A FACTOR

When asked about the use of technologies in the sharing of their knowledge with other students, the research found that 89% of those who engage in knowledge sharing indicated that they use new technologies, whereas 11% said they did not. Among those who used technologies, WhatsApp as a technological platform accounted for 60% and Facebook usage was at 15%. WhatsApp is a freeware and cross-platform instant messaging and voice over internet service. This application allows the sending of text messages, voice and video calls, images and other multimedia files including user location all in real time (WhatsApp Inc., 2018).   Others include Email at 10%, 8% use twitter, blogs and community of practice accounted for 2.5% each and 2%

use technology such as WIKIs. This is in agreement with Yuen and Majid (2007) and Wei et al. (2012) who conducted a research to discover university students' knowledge-sharing behaviour. Both surveys found that students extensively used the Internet as a tool to share significant information. Nevertheless, the rapid advancement in distance learning and networking technology has enabled students to exchange knowledge beyond time and space barriers.

Furthermore, Muhammad Sabbir Rahman (2014) in Wangpipatwong (2009) also agrees with the research findings in that it was found that technological support, sharing information and degree of competition play significant roles in influencing knowledge-sharing behaviour among the university students.

Despite Cabrera and Cabrera (2002) agreeing with the research findings that modern information and telecommunication technology are available to support knowledge sharing across time and distance, they however note that it has limited value because it ignores when and how the quality of knowledge sharing will be enhanced.

 5.2 OBJECTIVE TWO: TO ESTABLISH KNOWLEDGE SHARING ACTIVITIES PRACTICED AMONG LIS STUDENTS.

 Concerning knowledge sharing activities, majority of the students preferred group discussions which represented 45% of the sample. One of the reasons why these respondents preferred this activity was because group works are assigned by lecturers hence students take it serious. Further, others saw group discussions as a platform that presented the opportunity to meet new people with diverse and rich views about academic work. Additionally some students viewed group discussion as a motivation because fellow group members inspire them to work hard. Also group discussions enhances students listening skills which sharpens and build their knowledge base.

Another prominent activity is Lecturers and presentations which represents 22% of respondents. This is so because they view lecturers as a source of insightful knowledge which would be beneficial in pursuing academic achievements and they prove to be an effective platform of knowledge exchange and transfer. On the other hand, presentations enable students to research thoroughly and share different views about particular academic work. The research findings seem to be in agreement to Ugochi et al. (2013), who conducted a research to examine the knowledge sharing behaviour of postgraduate students in University of Malaya. It was found that

knowledge is considered to be highly valuable and hence tended to be shared more unreservedly among students during academic activities like class sessions. However, they note that this can be achieved on a condition that an opportunity or a conducive environment is created to allow this sharing by the lecturer.

Lastly research findings reveal that academic games (11%) and informal social events (2%) are the least popular among LIS student. informal social event are viewed as luxury hence students do not attach great importance as a space were knowledge can be shared. This is contrary different from Chaudhry (2005) who found out that academic games create excitement around learning and knowledge sharing. They help to promote teamwork, strengthen relationships and breakdown complex systems into manageable pieces of information that can be easily understood. He further states that whatever the format of the games, learning is captured and shared. On the other hand, contrary to the research findings a study conducted by Ting and Majid (2007) on knowledge sharing patterns of undergraduate students in Singapore, found out that Informal social events can be considered to be a vital activity that fosters or facilitates mutual understanding, trust and respect which are essential factors of successful sharing of knowledge, this led them to recommend that academic institutions should make efforts to foster cordial relationship among students through providing ample interaction opportunities through organizing informal social events.

5.3 OBJECTIVE THREE: TO FIND OUT THE BARRIERS TO KNOWLEDGE SHARING AMONG LIS STUDENTS.

There are various barriers that have been identified as hindering knowledge sharing among LIS student. The barriers are divided into three categories that is: personal, organizational and technological barriers. This paper describes Personal barriers as boundaries that are caused by mostly, individual's behaviour, attitudes, norms, values, morals, ethics etc. According to the findings in this research a total portion of 40% of the participants cited personal barriers which emerged as the main limitation. This was in line with Smith and Mckeen (2003) who found that people are overloaded with more than enough that they have little time or no time at all to engage in knowledge sharing.

Daka (2010) and Davenport (1994) also agrees with the research findings in that they summarized the personal barriers into luck of trust. Lack of trust in people because they misuse

33

knowledge or take unjust credit for it and lack of trust in the accuracy and credibility of knowledge due to the source. Daka's (2010) research findings further summarises personal barriers to luck of motivation and infrastructure as the main hindrance. Daka further notes that because of luck of trust there is dominance in sharing explicit over tacit knowledge.

Furthermore, others personal barriers as noted by smith and Mckeen (2003) include differences in experience levels and lack of contact time and interaction between knowledge sources and recipients. Nabuyanda (2011) agrees with this statement in her research as it was found that students have a poor reading culture because they did not visit or use the library as the library is said to be the source of knowledge.

Additionally, poor verbal/written communication and interpersonal skills, age differences, gender difference, lack of social network, differences in education levels and differences in national culture or ethnic background were also noted in Simth and Mckeen's (2003) research to be major personal barriers to knowledge sharing. Though the research did not find concrete evidence linking these personal barriers to knowledge sharing or rather there was no evidence found showing the relationship between these personal barriers to knowledge sharing among LIS students.

In the same way, organizational barriers were regarded as those limitations that prevent the organization from sharing knowledge effectively such as Lack of transparent rewards and recognition systems that would motivate people to share more of their knowledge, lack of leadership and managerial direction etc. These research findings on Lack of transparent rewards and recognition systems that would motivate people to share more of their knowledge is another organisational barrier that is in line with Daka (2010) research findings that the major hindrance to knowledge sharing was luck of motivation which she termed as motivators.

This is also in line with Wenger (2002) who found out that the organisational structure has an influence on how knowledge flows and by what means. He states that higher learning institutions tend to be distributed organization with loosely connected department/ units, each with its own way of doing things. Thus depending on hierarchical structures and rules governing, knowledge flow in one part of the organisation may vary from the others as may inter departmental knowledge flow.

Technology has shown to be very important as it has influenced the rate at which information is shared. Technology either brings about positivity or negativity: it's positive because speeds sharing of knowledge and information is easily accessed for instance via Facebook, WhatsApp and other formats. It's negative, as these technologies are expensive to acquire. According to the research findings technological barriers accounted for 27% of respondents. These students feel internet connectivity is very expensive and hence hardly afford. Although the institution provides internet via a Local Area Network called Eduroam, most students do not enjoy access to this network due to congestion. Hence it mostly slow or not working at all due to the large number of students (demand). Other students simply don't have smartphones.

It can be noted that the research findings are contrary to the study done by Osunade et al. (2007) on internet for knowledge sharing usage among academicians in Nigeria, It was found that besides e-mail and searching for topical information, very little use was made of other internet facilities. Thus the sharing of knowledge features available on the internet were not utilised. Similarly some scholars have expressed concern over misplacement of ICTs in higher learning institutions saying that them alone cannot or are insufficient to bring about knowledge sharing and that it can only be fully understood if it is related to the motivation of knowledge sharing.

5.4 SUMMARY

The first objective was to find out the factors that influence knowledge sharing among LIS students. Firstly, the findings confirm the earlier studies done by Daka (2010) whose research findings showed that there is evidence of great awareness concerning Knowledge sharing and its importance among academicians in higher learning institutions in Zambia. By and large it can be noted that not only does the nature of learning employed by the institution which puts knowledge transfer at the heart of its mandate help in bridging team work but also new technologies like WhatsApp help to facilitate and strengthen team work which in turn has the ability to facilitate the smooth flow of knowledge in higher learning institutions. Secondly, objective two relates to the knowledge sharing activities practiced among LIS students. From the findings, group work and discussions where the most desirable activities. It can therefore be deduced that there is need for curriculum enhancement with special focus on improving lessons with more opportunities for student interactions including activities that would stimulate more discussions and exchange of ideas. Thirdly, barriers to knowledge sharing include personal, technological and organisational barriers. Personal barriers were the most common due to lack of trust as a result of being less

confident about the accuracy and credibility of the source. This may therefore hint that there is need for more education on how students can identify and access trustworthy information sources.

5.5 CONCLUSION
The presence of knowledge sharing in Higher Learning Institutions is very vital for the survival of institutions and success of its students. This is so because it is capable of generating new ideas and learning opportunities for both members of staff and students. This study clearly indicated the presence of knowledge practice among LIS students at the University of Zambia. This is demonstrated by the levels of awareness and frequent engagement in the knowledge sharing practice. Additionally, the study also disclosed that student involvement in sharing knowledge is largely influenced by teamwork and their knowledge levels about any particular subject matter. Furthermore, the high use technology in sharing knowledge indicates that institutions need to take advantage of the major technological development in order to maximise the practice of sharing knowledge and its benefits. The research also showed that students use a number of activities to share what they know. Students are more attracted to activities that enable them free express themselves among their peers. Such activities include group discussions and group assignments. Therefore a curriculum that involves a lot of lecture-student interaction and in a manner that would bring learners together would positively influence and increase opportunities to share knowledge. With regards to barriers to knowledge sharing, the study summed up all of them in three categories namely personal, organisational and technological barriers. Personal barriers appeared to be the main barrier with a percentage of 40% of the sample. These barriers include lack of trust, poor verbal and communication skills.

5.6 RECOMMENDATIONS

- There is need for the creation of more incentives for knowledge sharing so that students feel motivated to share what they know.
- Management should emphasize the value of sharing knowledge to all students and should in effect improve teaching methodologies to a level were more platforms of sharing knowledge are created.

- Technology-based facilities and services such wireless internet provision need to be improved.

- Knowledge management should be a compulsory course in higher learning institutions in order to enhance understanding and full appreciation of the value of knowledge sharing among students.

REFERENCES

Al-Hawamdeh, S. (2003). "Knowledge Management: Cultivating Knowledge Professionals", Washington DC: Academic Press.

Arthur, M. B., De Fillippi, R. J., & Lindsay, V. J. (2008). On being a knowledge worker. *Organizational Dynamics, 37*(4), 365-377.

Bloxham, S., & Boyd, P. (2007). *Developing effective assessment in higher education: a practical guide*. Maidenhead: McGraw Hill/Open University Press.

Brown, A. L. (1988). Motivation to learn and understand: On taking charge of one's own learning. *Cognition and Instruction, 5*(4), 311-321. Retrieved from: http://dx.doi.org/10.1207/s1532690xci0504_4. On 05/07/2018

Chaudhry, A.S. (2005). ''Knowledge sharing practices in Asian institutions". Journal of Knowledge Learning, 3, 32-40.

Cheng, M.Y., Ho, J. and Lau, M. (2009). ''Knowledge sharing in academic institutions: a study of Multimedia University Malaysia'', Electronic Journal of Knowledge Management, Vol. 7 No. 3, pp. 313-24.

Creswell, J.W., (2014). "Research Design: Qualitative, Quantitative and Mixed Methods", Thousand Oaks: SAGE Publications.

Cronin, B. (2000), ''Knowledge management, organisational culture and Anglo-American higher education'', Journal of Information Science, Vol. 27 No. 3, pp. 129-37.

Daka, K.L. (2010), Investigating the Knowledge Sharing Culture among academicians in Higher Learning Institutions in Zambia: A dissertation submitted to the University of Zambia in partial fulfilment of the requirements of the degree of masters of library and information studies (Mlis). Retrieved from: http://www.unza/dispace10.1207/s1532690xci0504_4. Accessed on 05/07/2018

Davenport, T. and Prusak, L. (1998), "Working Knowledge", Harvard Business School Press, Cambridge, MA.

De Merode, L., (2000), **"**Communities of Practice (CoPs)", presentation to CIDA, Silver Creek Associates, May 2000. Retrieved on 12th may, 2018.

Drucker, P. F. (1999), Management Challenges for the 21 Century, New York Harper Collins.

Gupta, A. K., & Govindarajan, V. (2000). "Knowledge management's social dimension": Lessons from Nucor Steel. *MIT Sloan Management Review, 42*(1), 71.

Heathfield, M. (1999). "Group-based assessment: an evaluation of the use of assessed tasks as a method of fostering higher quality learning". *Assessment matters in higher education*, 132-145.

Huberman, A.M., (1994) "Qualitative Research Design", London: SAGE.

Kift, S., Nelson, K., & Clarke, J. (2010). "Transition pedagogy": A third generation approach to FYE - A case study of policy and practice for the higher education sector. *The International Journal of the First Year in Higher Education, 1*(1), 1-20. doi:10.5204/intjfyhe.v1i1.13

Leibowitz, J. (2008), ''Think of others' in knowledge management: making culture work for you'', Knowledge Management Research and Practice, Vol. 6, pp. 47-51.

Leon, R.-D. (2011). "Creating the future knowledge worker". *Management & marketing, 6*(2), 205.

Liang, T., Liu, C. & Wu, C., 2008. Can social exchange theory explain individual knowledge sharing behaviour: A meta-analysis. National SunYat-sen University; Taiwan.

Ma, W. W., & Yuen, A. H. (2011). "Understanding online knowledge sharing": An interpersonal relationship perspective. Computers & Education, 56(1), 210-219. http://dx.doi.org/10.1016/j.compedu.2010.08.004.

Mc Manus, D. & Loughridge, B., 2002. Corporate information, Institutional Culture world, vol. 103. 1189 p. 320-327, Emerald.

Nabuyanda, M. M., 2011. "Factors inhabiting promotion of a reading culture": A study of Basic School Libraries in Lusaka: A dissertation submitted to the University of Zambia in partial fulfilment of the requirements of the degree of masters of library and information studies (Mlis). Retrieved from: http://www.unza/dispace10.1207/s1532690xci0504_4. Accessed on 05/07/2018

Osunade, O., Oluwaseun, F. P. & Oluwaseun, O., 2007. "Limitation of Knowledge sharing in academia". A case from Nigeria, Knowledge Management for Development journal 3 (1): 26-34.

Riege, A. (2005). "Three-dozen knowledge-sharing barriers managers must consider". *Journal of Knowledge Management, 9*(3), 18-35. http://dx.doi.org/10.1108/13673270510602746

Rowley, J. (2000). "Is Higher Education Ready for Knowledge Management?" The International Journal of Education Management, 14(7), 325-333.

Salisbury, M. W. (2003). "Putting Theory into Practice to Build Knowledge Management Systems". Journal of Knowledge Management, 7(2), 128-141.

Smith, H. A. & Mckeen, J. D., (2003). "Installing a Knowledge-sharing Culture", Ontario: Queens University at Kingston.

Syed-Ihksan, R F., (2004), "Benchmarking Knowledge Management in a Public Organisation in Malaysia".

Thyer, B., (1993). "Single System Research Design", Illinois: Peacock Publishers. UNESCO Institute of Education.

Ting Jer Yuen, M. Shaheen Majid, (2007) "Knowledge-sharing patterns of undergraduate students in Singapore", Library Review, Vol. 56 Issue: 6, pp.485-494, https://doi.org/10.1108/00242530710760382.

Ugochi N., Akmar I., and Fauzi A., (2013), "Knowledge sharing behaviour of postgraduate students in University of Malaya", The Electronic Library, Vol. 31 Issue: 6, pp.713-726, https://doi.org/10.1108/EL-02-2012-0021.

Wangpipatwong, S. (2009). "Factors influencing knowledge sharing among university students". Paper presented at the Proceedings of the 17th International Conference on Computers in Education. https://doi.org/10.1108/00242530710760382

Wenger, E., McDermott, R. & Snyder, W. M., 2002. "Cultivating Communities of Practice". Boston: Harvard Business school press.

WhatsApp, Inc., 2018. "WhatsApp Messenger", Retrieved from https://WhatsApp.com/whatsappmessenger Accessed on 10th December, 2018.

THE UNIVERSITY OF ZAMBIA

SCHOOL OF EDUCATION

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

RESEARCH IN INFORMATION DEVELOPMENT SYSTEMS   (LIS 4014)

RESEARCH TOPIC: KNOWLEDGE SHARING IN HIGHER LEARNING INSTITUTIONS. A CASE STUDY OF LIS STUDENTS AT THE UNIVERSITY OF ZAMBIA.

Dear respondents,

We are fourth year students in School of Education from the University of Zambia (UNZA) pursuing a Bachelors of Arts Degree in Library and information science. We are carrying out a research on the aforementioned topic. For this reason, we wish to inform you that you have been purposively sampled to help us with information which will successfully make our research findings representative for the use of students in accessing educational information. We therefore wish to inform you that the information you will give us will be purely used for academic purposes and be treated with outmost confidentiality and anonymity.

INSTRUCTIONS

1. Do not indicate your name on the questionnaire.
2. Please tick the appropriate box to express your view.
3. Please answer all questions applicable to you as truthfully as possible.

Your cooperation will be greatly appreciated

SECTION A: BACKGROUND INFORMATION

No.	Questions	Coding Categories	Official use
Q 1	What is your age?	1. 15-25 ☐ 2. 26-30 ☐ 3. 31- above ☐	☐
Q 2	What was your marital status?	1. Single ☐ 2. Married ☐ 3. Divorced ☐ 4. Widowed ☐	☐
Q 3	What is your religion?	1. Christianity ☐ 2. Islam ☐ 3. Buddhism ☐ 4. Hinduism ☐ 5. Others........ ☐	☐
Q 4	What is your other major?	1. development studies ☐ 2. public administration ☐ 3. demography ☐ 4. economics ☐ 5. geography ☐ 6. psychology ☐ 7. English language ☐ 8. philosophy ☐	☐

Q 5	What is your year of study?	1. Third 2. Fourth	

SECTION B: FACTORS INFLUENCING KNOWLEDGE SHARING.

Q 6	How often do you share what you know with other students?	1. very often 2. often 3. not often	
Q7	What factors influence your knowledge sharing?	1. Incentive 2. Knowledge 3 Initiative. 4.Teamwork 5. Others (specify) …………………… …………………………………………..	
Q8 a.	Do you use any of the technologies to share your knowledge with other students?	1. Yes 2. No	
	If ''Yes'' continue with Q8 b. If ''No'' skip to question Q9		
Q8 b.	Which technologies do you use? (tick the relevant)	1. WhatsApp 2. Facebook 3. twitter	

		4. E-mail	
		5. blogs ☐	☐
		6. Community of Practice ☐	
		7.	
		Others……………………………………………	
		…………………………………………………	
		…...	
Q8 c.	Why do you prefer using the above ticked technologies?	……………………………………............... ……………………………………............ …………………………………………... …………………………………………...	

SECTION C: KNOWLEDGE SHARING ACTIVITIES.

Q9	Does the university provide an enabling environment that facilitate knowledge sharing?	1. Yes ☐ 2. No ☐	☐

Q10	Which of the following activities enable you to communicate with others?	1. group work ☐ 2. group discussion ☐ 3. Lectures and presentations ☐ 4. Academic games (e.g. debates, quiz) ☐ 5. informal social events (social trips) ☐ 6. Others (**specify**) ………..……….. ………………………………………	☐
Q11	Which one of these do you prefer and why?	…………………………………………. …………………………………………. ………………………………………….	
Q12	Can your academic performance be affected by the absence of your preferred activity mentioned above?	…………………………………………. …………………………………………. ………………………………………….	

SECTION D: BARRIERS TO KNOWLEDGE SHARING

Q13	What limitations do you face when trying to share what you know?	………………………………………….. ………………………………………….. ………………………………………….. ………………………………………….	
Q14	What do you think is the solution to the above mentioned barrier?	…………………………………………. …………………………………………. ………………………………………….	

THANK YOU FOR YOUR TIME!

APPENDIX 2: WORKPLAN

ACTIVITIES	MONTH								
	Apr, 2018	May 2018	Jun, 2018	Jul, 2018	Aug, 2018	Sep, 2018	Oct, 2018	Nov, 2018	Dec, 2018
Approval of research topics and objectives	■								
Approval objectives	■								
Submission of chapter one for review.		■							
Submission of chapter two for review			■						
Submission of chapter three for review			■						
Final submission of the whole proposal				■					

APPENDIX 3: BUDGET

DESCRIPTION OF ITEM	DESCRIPTION	UNIT PRICE
a) Ream of paper	Paper for jotting down notes and printing out the proposal, report and interview guides.	K90.00
b) Printing	Printing of interview guides, research proposal, work plan and budget.	K150.00
c) Binding	Binding of research proposal and report	K40.00
f) Airtime	Airtime for communicating with group members and supervisor	K300.00
g) Transport	Transport to and from the field for data collection.	K500.00
h) Internet	For research purposes	K200.00
TOTAL PRICE		K1,280.00