

**AN INVESTIGATION OF KNOWLEDGE SHARING PRACTICES AMONG
TEACHERS AT KHOMAS HIGH SCHOOL, WINDHOEK**

**A research project submitted in partial fulfilment of the requirements for the degree of
Bachelor of Arts in Library and Information Science (Honours) to the University of
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ABSTRACT

Knowledge sharing (KS) is recognized by many organizations as a solution or an interaction for knowledge creation, and an important activity to boost innovation, improve productivity, and increase understanding among knowledge workers. The study investigated knowledge sharing practices among teachers at Khomas High School, Windhoek'. The main objective of the study was to investigate the knowledge sharing practices among teachers at Khomas High School, Windhoek, Namibia. The objectives of the study were to investigate the perspectives of teachers towards knowledge sharing; to find out the barriers and enablers of knowledge sharing; to determine the communication tools for knowledge sharing and to come up with recommendations on how knowledge sharing can be enhanced.

The study adopted a qualitative research approach using a semi-structured interview guide to collect data. The population of the study was teachers at Khomas High School, Windhoek, from which a sample of 12 teachers were selected using accidental sampling. The research instrument for this study were the face-to-face interviews. Data was analyzed applying content analysis and coding themes, and the findings are presented using descriptive narrative.

The study revealed out that, teachers at Khomas High School seems to understand knowledge sharing as a mere process of sharing of information with other colleagues. This is a clear indication that there is no clear distinguishing between information sharing and knowledge exchange as a gap filling using supporting sources like when sharing materials with each other's. The study further confirmed that, teachers at Khomas High School do gain new knowledge by a means of sharing ideas regularly, and there were those who indicated that they learn new ideas through attending workshops and by searching the internet sources. This study also discover that, teachers at Khomas High School only considered sharing general knowledge, and subjects-related knowledge but not confidential related information that may be personal. The study however pointed out the following as probing points that motivates all

the teachers at Khomas High School, to share knowledge. Learner's performances, education standards, examination results, experiences, teamwork, as well as personal characters as an inborn thing to share knowledge.

Moreover, the study also confirmed challenges that teachers were facing at Khomas High School which include low internet access, knowledge gap between teachers because people are not at the same level of education as well as the same level of age, misunderstanding and misinterpretation of the information which can results in an argument. One of the study's recommendations is more informative meetings as part of mentoring of new teachers by advisory teachers.

DEDICATION

I would like to dedicate this research study to my parents, sisters, and colleagues for being there for me throughout my years of study.

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Firstly, I would like to thank God for giving me strength, Secondly, I would like to thank my supervisor Professor C. T. Nengomasha for her guidance and mentoring me during this study. I sincerely appreciate the support she offered me. Without her support, I could not have completed the task on time. May the good Lord bless you Prof. Lastly, I would like to thank the participants, who took part in my study, my colleague, Ms. Jakobina Mwiiyale for her support and encouragement during this research project, my friends, Mr Eino Hamutenya and Mr Samuel Amutenya, and everyone who believed in me, I thank you all and may God bless you.

DECLARATION

I Hileni Ndinelago Nepaya declare that, this study is my own work and that this work has not been submitted in any academic institution. I have not allowed and will not allow anyone to copy my work with the intention of passing it as her or his own work.

Signed _____ Date _____

Hileni N. Nepaya

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LIST OF ABBREVIATIONS AND ACRONYMS

KS - Knowledge Sharing

CoP - Communities of Practice

IT - Information Technology

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter introduces the study ‘An investigation of knowledge sharing practices among teachers at Khomas High School, Windhoek’. The chapter provides the statement of problem, research objectives, the significance of the study, limitation of the study. This chapter also contains a brief literature review, theoretical framework, and methodology as well as research ethics.

1.2 Orientation of the proposed study

Knowledge sharing (KS) is recognized by many organizations as a solution or an interaction for knowledge creation, and an important activity to boost innovation, improve productivity, and increase understanding among knowledge workers (Nove & Puspitasari, 2013). Knowledge sharing has become a crucial activity in knowledge management, and it is slowly being adopted by many organizations especially in the developed countries. An organization that continuously increases its knowledge can be in a better position to deal with the uncertainty of the organizational environment, market dynamics, technological growth, and social needs as well as to stay competitive and sustainable (Nove & Puspitasari, 2013).

Recently knowledge transfer becomes the focus of attention from many practitioners and academics. Knowledge transfer is an integral part of knowledge sharing (Al-Gharibeh, 2011). In order to build on the knowledge asset, an organization needs to share knowledge and transfer this knowledge within organizational networks. In contemporary, knowledge includes knowing about people, learning, flexibility, power and competitive advantage. Knowledge has become the key economic resource, the dominant, and perhaps even the only source of competitive advantage (Al-Gharibeh, 2011).

According to Al-Gharibeh (2011) knowledge, sharing should be considered as a transfer of tacit or explicit knowledge in interaction between individuals. On contrary, explicit knowledge is cognitive that can be expressed informal speech and exchanged in the form of data. Where areas tacit knowledge includes individual context related analogous and practical related knowledge, tacit knowledge can only be transferred in face-to-face situations (Al-Gharibeh, 2011). Knowledge sharing is linked to knowledge to human interactions that are embedded in organizational contexts.

A Namibian study by Mubuyaeta (2016) has showed that, organisational knowledge sharing is considered as an important element of organizational KM, based on two understandings, namely: to transfer tacit knowledge among individual employees (socialization) and precedent of knowledge creation, and enhancing innovation. Therefore, organizational KS can help the organization in knowing and understanding what makes employees help each other in terms of learning and sharing their hard-earned knowledge (Mubuyaeta 2016).

There are some most common factors that can inhibit knowledge sharing as identified by Cahal and Savita (2012) and they actually includes the following: general lack of time to share knowledge and time to identify colleagues in need of specific knowledge, apprehension of fear that sharing may reduce or jeopardize people's job security, low awareness and realization of the value and benefit of possessed knowledge to others, dominance in sharing explicit over tacit knowledge, lack of contact time and interaction between knowledge sources and recipient, poor verbal/written communication and interpersonal skills, lack of trust as well as lack of social network plus lack of technical support and immediate maintenance of integrated IT systems obstructs work routines and communication flows.

Sharing knowledge properly can bring many benefits to a school such as it improves communication among employees, both intradepartmental and interdepartmental, as according

to Postolache (2017). However, Cahal and Savita (2012) also revealed out the enablers or factors that can facilitate knowledge sharing such as collaboration, trust, learning and information technology. All these factors needs to be managed well in order to enhance and facilitate the sharing knowledge in schools.

1.3 Statement of the problem

Knowledge has been recognized as a useful asset of the organization growth. Sharing and transferring knowledge to a correct person at a right time is a challenge that needs to be solved (Cahal & Savita, 2012). Knowledge sharing is a good practice with various benefits but there are barriers that inhibit the effectiveness of knowledge sharing. Few studies on knowledge sharing has been done in Namibia but none has focused on teachers. This study therefore investigated knowledge sharing among teachers to establish whether the issues highlighted in the literature apply to the KS practices through the case study of Khomas High School, Namibia.

1.4 Objectives of the study

The main objective of the study was to investigate the knowledge sharing practices among teachers at Khomas High School, Windhoek, Namibia. The sub-objectives are as follows;

- a) To investigate the perspectives of teachers towards knowledge sharing.
- b) To find out the barriers and enablers of knowledge sharing.
- c) To determine the communication tools for knowledge sharing and
- d) To come up with recommendations on how knowledge sharing can be enhanced.

1.5 Significance of the study

The study is significant because, the findings of this study could assist in informing KS policy and procedures at Khomas High School. The findings could also contribute to the body of

knowledge and positively encourages collaboration among teachers in schools, specifically on Namibia.

1.6 Limitations of the study

Kumar (2014) defined limitations as structural problems relating to methodological aspects of the study. Therefore, due to limited time and budget constraints, this study is a case study whose findings cannot be generalized to other schools.

1.7 Literature review and theoretical framework

The literature review is an integral part of the research process and makes a valuable contribution to almost every operational (Kumar, 2014). The literature review serves to enhance and consolidate knowledge based in subject area and it helps to examine the findings in the context of the existing body of knowledge.

Theoretical framework is the structure that holds or supports a theory of a research study. The study adopted the SECI model of Nonaka and Takeuchi (1995) as its theoretical framework of the knowledge sharing process, which depicts the dynamic nature of knowledge creation, and shows how to manage such a process effectively. There is a spiral of knowledge involved in the models, whereby explicit and tacit knowledge interact with each other in a continuous process. The model starts with the Socialization, Externalization, Combination and Internalization, each nature of knowledge is transformed (Mayubueta, 2016). The study applied to this model to examine how knowledge is shared among teachers through social interaction at Khomas High School. Furthermore, the model was applied to examine how teachers at Khomas High School turn tacit knowledge into explicit. Through that, the theory could help to analyses factors that inhibit KS and it will as well help to understand the causal relationship on how teachers interact with each other when sharing knowledge.

The researcher critically reviewed previous studies related to the subject or phenomena identified such as the perspectives of knowledge sharing, the enablers of KS, the barriers of KS as well as the communication tools of KS and the recommended ways to enhance KS among teachers. Different scholars defined KS from different perspectives. Nonaka and Takeuchi (1995) defined knowledge sharing as a key to developing professional learning communities that needs to be supported by organizational culture. On contrary, Al- Gharibeh (2011) defined KS as a dynamic process to exchange knowledge between a group and individuals to work with others. To add on that, knowledge sharing process involves two actions: transmission of knowledge to potential recipient and knowledge absorption by that recipient that could eventually lead to changes in behavior or the development of new knowledge. However, Cahal and Savita (2012) defined knowledge sharing as the communication of all types of knowledge, which includes explicit knowledge or information, the ‘know-how’ and ‘know-who’ which are the types of knowledge that can be documented and captured as information and tacit knowledge in the form of skills and competencies.

A study by Sanz (2016) revealed that, understanding the obstacles that make the sharing and transfer of knowledge difficult is the first step in identifying potential solutions. Although barriers may appear in many versions and variations, in this paper, they are grouped into external to the project (but internal to the organization) and internal to the project, although in the real world, they are closely related. The external barriers would include all those obstacles that inhibit the transfer of knowledge across the organization (the inter-project level). The internal barriers would focus on the obstacles that make knowledge sharing between members of the team difficult (intra-project level).

Cahal and Savita (2012) also stated out some barriers to KS which are: lack of training regarding employee’s familiarization of new Information Technology (IT) system, culture resistance, lack of time, gender differences, age differences, lack of familiarity and experience

with IT system, lack of trust, differences in experience level, lack of transparent reward and recognition systems and communication flows restricted into certain directions. Al- Gharibeh (2011) defined KS enablers as influencing factors that helps foster knowledge consistently through the firm by stimulating knowledge creation, protecting knowledge and facilitating the sharing of knowledge.

Al- Gharibeh (2011) further divided the enablers into 8 categories, which are: a) Collaboration: the degree of active-support and help in an organization. b) Trust: the degree of reciprocal faith in others intentions, behaviors and skills toward organizational goals. c) Learning: the degree of opportunity, variety, satisfaction and encouragement for learning and development in an organization. d) Centralization: the degree of authority and control over decisions. e) Formalization: the degree of formal rules, procedures and standard policies. f) Leadership: which is considered the most significant as top-down knowledge management strategies and mechanisms knowledge management. g) Information technology support: the degree of IT support for collative work, for communication, for searching and accessing, for simulation and prediction, and for systematic storing. h) Culture and Measurement: culture is concerned with the climate of the knowledge-sharing environment as well as the culture in the organization that promotes the knowledge sharing. Measurements aim to find out if there are effective measures to indicate the success or failure of knowledge management practice in organization (Al- Gharibeh, 2011).

A study by Assefa (2012) on KS communication tools stressed out that, a proper communication system within the network is central for its efficiency and to facilitate knowledge mapping and knowledge sharing. Web based tools combined with face-to-face methods offer new opportunities for better knowledge sharing across disciplines, languages and borders. Open or restricted access websites are common tools for teachers to share and access information. For those without internet connections, the same sets of information can

be shared on CD-ROMs. Although the Internet is effective for information sharing, it may not be the most suitable tool for information sharing in schools where rural and poor communities do not have access to such technology. Thus, school management need to consider different options including newsletters in local languages, radio programs and face-to-face meetings (Assefa, 2012).

1.8 Research Methodology

The study adopted a qualitative research approach which Kumar (2014) defined as a qualitative research as collecting, analyzing and interpreting data by observing what people do and say. Kumar (2014) further defines research design as the road map that one decides to follow during the research journey to find answers to the research questions as validly, objectively, accurately, and economically as possible.

This study employed a case study research design, which is an empirical enquiry that investigates a contemporary phenomenon within its real life context (Kumar, 2014). Data was collected using face-to-face interviews using a semi-structured interview guide. Data was analyzed applying content analysis and coding themes. The population of the study was teachers at Khomas High School, Windhoek, from which a sample of 12 teachers were selected using accidental sampling.

In order for research data to be of value and of use, they must be both reliable and valid (Creswell, 2012). The concept validity refers to the appropriateness of each step in the research process (Kumar, 2014). The concept of validity is more associated with measurement procedures. In terms of the measurement procedure, validity is the ability of an instrument to measure what is designed to measure (Kumar, 2014). In qualitative research, validity refers to the trustworthiness of the findings. Therefore, the researcher ensured trustworthiness of the finding. By conducting all the interviews, the researcher ensured consistency during the

research study. Reliability is the ability to be able to provide similar results when a study is conducted repeatedly under similar conditions (Kumar, 2014). The participants were asked follow-up questions to ensure reliability and to enable the researcher capture data objectively as stated.

1.9 Research ethics

According to Baker (2000), ethics in research are the norms for conduct that distinguish between acceptable and unacceptable behavior. The researcher informed the participants about the study by explaining clearly the purpose of the study and they were made fully aware of what information is expected from them. The participants were asked to consent through indicating by completing the consent form. Participants were also made fully aware that there were no monetary awards or rewards to be given and they have the rights to withdraw from the research study as participants. Confidentiality was ensured through using codes instead of participant's names when reporting findings to ensure anonymity (See appendix A).

1.10 Chapter summary

This chapter discussed the proposed topic of the study which is an investigation of knowledge sharing practices among teachers at Khomas High School, Windhoek'. This chapter provided fundamentals issues that influences the researcher to investigate the subject area. Knowledge sharing is an essential component that employees in an organization needs to practice. A number of various issues were highlighted under the statement of the problem using the study guiding objectives in order to fill the research gap in relation to KS in schools setting. Possible implications and significance role of KS communication tools as well as barriers that inhibit the effectiveness of knowledge sharing were highlighted in the literature. The next chapter is literature review, whereby main concepts, theories and models of knowledge sharing are discussed.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Introduction

Taylor and Procter (2008) defined literature review as a summary, discussion and critical analysis of academic work related to the research problem or set of questions. The purpose of literature review is to see if there is any gap in the study being conducted and to share with the readers the results of other studies that are closely related to the study being conducted. Similar approach is taken in this chapter to review related literature and guide the researcher on how to investigate the sharing of knowledge among teachers at Khomas High School. This is done with the aim of connecting readers with previous studies in the area of knowledge creation and sharing in an organization or school structure. The focus of this chapter is therefore to review closely relevant literature related to this study's areas of investigation.

Literature reviewed in this study is sourced from academic journals and conference proceedings. The literature reviewed in this chapter is organized around the research objectives. Firstly, to investigate the perspectives of teachers towards knowledge sharing in a school context. Possible factors, barriers and enablers of knowledge sharing are also discussed. Secondly, to determine the communication tools for knowledge sharing and thirdly to come up with recommendations on how knowledge sharing can be enhanced. The chosen framework will also aid the researcher to understand the methodology, study design and how data collections were constructed. The following description is a discussion of the SECI model as a theoretical framework of this study. A theoretical framework presents theories and models relevant to the topic understudy.

2.2. The SECI Model theory

The SECI Model developed and expanded by Nonaka and Takeuchi (1995) has realized to be the most recognized and accepted model of knowledge sharing in the field of knowledge management. The theoretical framework is based on the SECI model of knowledge sharing. The SECI model theory describes how explicit and tacit knowledge is generated, transferred, and recreated in organizations. While it was first proposed within the context of business organizations, the model can easily be applied to education and knowledge management field because it is precise, clear and simple to understand and relate to ordinary human interaction. Nonaka and Takeuchi (1995) defined the SECI model theory as the creation of knowledge and this is a continuous process of dynamic interactions between tacit and explicit knowledge. This model examines the impact of sharing knowledge among themselves.

Based on Nonaka and Takeuchi (1995), this knowledge conversion model aims to create a common understanding of knowledge sharing. Nonaka and Takeuchi (1995) further stated that knowledge conversion model intends to describe the process of how individuals convert tacit to explicit knowledge and vice versa. Lou et.al. (2007) defines explicit knowledge as to that knowledge which can be codified, such as in documents and databases and tacit knowledge as the distinctive combination of an individual's experience, knowledge, and expertise that enables them to make a meaningful contribution towards the success of the organization. The SECI model theory consists of four (4) elements of knowledge conversion namely; socialization (tacit to tacit), externalization (tacit to explicit), combination (explicit to explicit), and internalization (explicit to tacit).

- **Socialization:** this is the sharing of tacit knowledge through face-to-face communication or shared experience. This process focuses on tacit to tacit knowledge linking. Tacit knowledge goes beyond the boundary and new knowledge is created by using the process of interactions, observing, discussing, analyzing, spending time

together or living in same environment. The socialization is also known as converting new knowledge through shared experiences (Nonaka & Takeuchi, 1995). Organizations gain new knowledge from outside its boundary also like interacting with customers, suppliers and stakeholders. This occurs in traditional environments where son learns the technique of woodcraft from his father by working with him (rather than from reading from books or manuals).

- **Externalization:** this is when developing concepts, which embedded the combined tacit knowledge. This process focuses on tacit to explicit knowledge linking. It helps in creating new knowledge as tacit knowledge comes out of its boundary and became collective group knowledge. With this process, we can say that knowledge is crystallized. The process of externalization is often driven by metaphor analogy and models (Nonaka & Takeuchi, 1995).
- **Combination:** this is the combination of various elements of explicit knowledge. Combination is a process where knowledge transforms from explicit knowledge to explicit knowledge. Creative use of database to get business report, sorting, adding, categorizing are some examples of combination process (Nonaka & Takeuchi 1995).
- **Internalization:** this is closely linked to learning by doing the explicit knowledge becomes part of the individual knowledge base and becomes an asset for the organization. By internalization, explicit knowledge is created using tacit knowledge and is shared across the organization. When this tacit knowledge is read or practiced by individuals, then it broadens the learning spiral of knowledge creation (Nonaka & Takeuchi 1995). Organization tries to innovate or learn when this new knowledge is shared in socialization process. Organizations provide training programs for its employees at different stages of their working with the company. By reading these training manuals and documents, employees can internalize the tacit knowledge and try

to create new knowledge after the internalization process by understanding concepts better.

The diagram in Figure 1.1 below describes the four elements of the knowledge conversion in the SECI model by Nonaka and Takeuchi (1995). What is interesting to take note in the figure below is that, Nonaka (1995) sees ongoing knowledge creation as the source of continuous innovation and continuous innovation as the source of sustained competitive advantage. “When organizations innovate, they do not simply process information, from the outside in, in order to solve existing problems and adapt to a changing environment. They actually create new knowledge and information, from the inside out, in order to redefine both problems and solutions and, in the process, to re-create their environment.

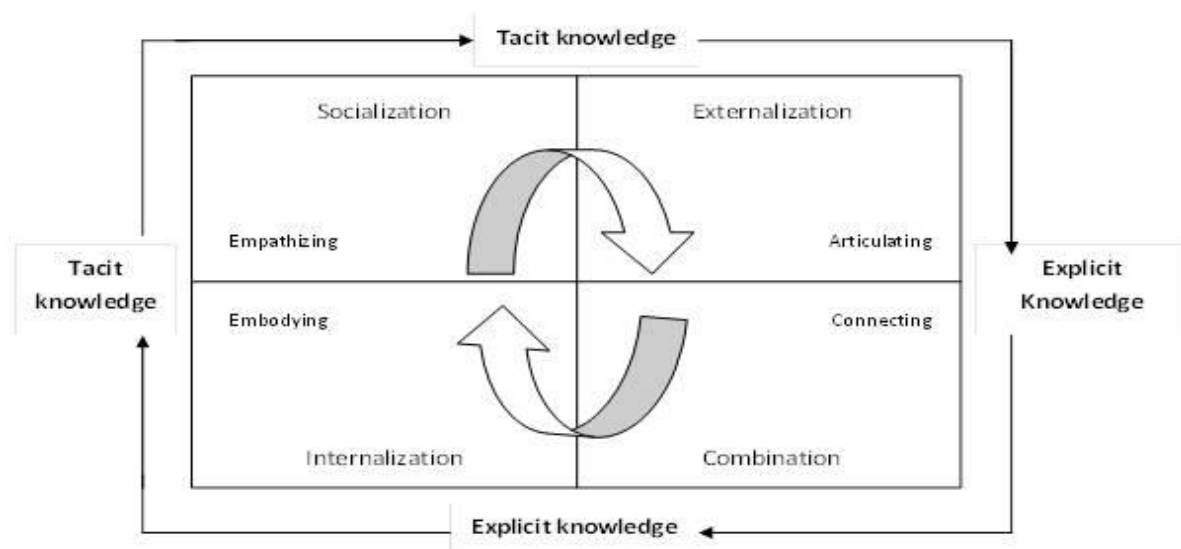


Figure 2.1 The SECI model by Nonaka and Takeuchi (1995)

2.3 Knowledge sharing

Knowledge is “what people understand about things, concepts, ideas, theories, procedures, practices and the way things are done”. When it comes to the nature of the knowledge, scholars have divided knowledge into two forms: explicit and tacit. The collective knowledge of team members only becomes powerful if it is shared among those who possess common goals. Paloti

(2004) suggested that in order to leverage knowledge, team members must share their knowledge and build on the knowledge of others. In other words, knowledge sharing encompasses not only the distribution of knowledge but also the process of searching for it from external sources or other team members within the team. Knowledge sharing also involves participation in social interactions that guide or change the way a team member thinks.

Manamela (2017) defined knowledge sharing as a set of approaches and processes that facilitate the exchange of different types of knowledge between team members. Knowledge sharing is an important aspect of Knowledge Management. Chaudhry (2004) also defined KS as the process of developing trans-specialist understanding through creation of overlapping knowledge fields” Knowledge sharing differs from knowledge transfers. Knowledge sharing among teachers is a major issue in current movements of education reform and school improvement (Chaudhry, 2004). While Jain, Sandhu and Sidhu (2007) refers to KS as the process of capturing knowledge or moving knowledge from a source unit to a recipient unit. KS is a process whereby a resource is given by one part and received by another and for sharing to occur, there must be exchange (Jain, Sandhu & Sidhu, 2007). KS refers to the exchange of knowledge between at least two parties in a reciprocal process allowing reshape and sense making of the knowledge in the new context (Jain et al., 2007).

Lou et al. (2007) stated that the knowledge sharing in organizations is dependent on the nature of the knowledge being shared either tacit or explicit knowledge. Knowledge sharing allows teams to use their knowledge effectively by learning from experiences. In doing so, they are reducing the time it takes to solve problems that have been faced in the past, developing new ideas and insights, and avoiding the repetition of past mistakes or having to reinvent the wheel (Lou et al., 2007).

2.4 Knowledge-sharing practices

Knowledge sharing practices are all the actions that are aimed at improving the internal flow and use of knowledge within a team. Manamela (2017) indicated that effective knowledge-sharing practices allow team members to reuse and regenerate knowledge at an individual and at a team level. Rusuli and Tasmin (2010) however stated that knowledge sharing practice helps organization to improve performance and achieve their mission.

2.4.1 Communities of practice

Community of practice (CoP) has been described from the main perspectives of social learning theory (Blankenshi & Ruona, 2008). Community of practice (CoP) as defined by Manamela (2017) is a group of team members who have worked together over a period of time and thorough extensive communication have developed a common sense of purpose and a desire to share work-related tacit knowledge. Jain et al. (2007) referred to Communities of Practice as to groups of people who do some sort of work together either online or in person to help each other by sharing tips, ideas and best practices. The concept of communities of practice (CoP) has gained attention as a way to create, share, and manage knowledge and facilitate learning in both public and private sector organizations. Blankenshi and Ruona, (2008) however defined CoPs as groups of people who share a common passion or purpose and who interact with the intent to share knowledge. This concept is a key component to understanding how members interact within the community to continually learn from each other and create their shared repertoire. Blankenshi and Ruona (2008) also argues that, CoPs are the ideal levels of analysis for looking at learning, knowledge and work identity formation, and that strategic coordination, or networking of communities may improve knowledge.

2.5 Knowledge sharing benefits

Sharing is caring thus, knowledge sharing is central to success of all knowledge management strategists (Rusuli & Tasmin, 2010). The effectiveness of knowledge sharing activities in organization has the potential of improving customer services. Rusuli and Tasmin (2010) identified and described the following concepts as the benefits of KS:

- **Innovative and Creative**

Knowledge sharing practices can make people in organization innovative and creative to created things. Meetings, and discussion and forums are the best platforms to share the knowledge and idea among groups. The people in the groups can easily exchange and share knowledge to make their tasks work. It is generally understood that knowledge sharing is an antecedent to many more knowledge management activities (Rusuli & Tasmin, 2010).

- **Knowledge is Power**

When knowledge sharing among people or employees in organization becomes stronger, it shows that knowledge also becomes more powerful in organization. Individual or person who shares their tacit knowledge through conversation becomes more innovative and creative in their work (Rusuli & Tasmin 2010). Much of this tacit knowledge exists and is communicated through conversations in community of practices or networks of practices. Such “know how”, “know who know where” knowledge promises to be more important.

Paloti (2006) however, identified the following as the benefits of KS:

- Expertise can be shared
- Turnover and job changes do not cripple the system
- Reduces cycle time
- Reduces costs
- More Efficient use and reuse of knowledge assets

- Enhances functional effectiveness
- Increases value of existing products and services

2.6 Knowledge Sharing Enablers

Asrar-ul-Haq and Anwar (2016) referred to KS enablers to the set of organizational conditions organizational design, culture, and technological infrastructure and management systems in place, which facilitate the exchange of knowledge. Al- Gharibeh (2011) defined KS enablers as influencing factors that helps foster knowledge consistently through the firm by stimulating knowledge creation, protecting knowledge and facilitating the sharing of knowledge. Although knowledge sharing is considered to be of a vital importance to organizations, it will not be achieved if there is a lack of knowledge sharing culture, trust and motivations. After reviewing and analyzing the literatures, three main factors namely: culture, motivations and trust have been identified. Knowledge-sharing enablers are used to promote and enhance knowledge-sharing practices. Therefore, it is important to understand these enablers as they play a key role in promoting and enhancing knowledge sharing practices and contribute to the study's aim, to establish how knowledge sharing amongst the team can be enhanced. Four enablers of knowledge sharing are identified below by Asrar-ul-Haq and Anwar (2016).

- **Culture**

Culture has been widely recognized as a key factor in successful knowledge-sharing initiatives. Organizations are becoming increasingly interested in promoting knowledge sharing culture because it is seen as a way of gaining competitive advantage. Culture has been identified as one of the most important factor that enables or inhibits knowledge sharing and transfer. Asrar-ul-Haq and Anwar (2016) referred to culture as a system of beliefs rooted in the society and expressed through the behavior of the people and organizations. Culture acts as an antecedent to knowledge sharing, for example, innovative, community, and bureaucratic cultures tend to have a positive effect on the knowledge-sharing behaviors.

Organizational culture refers to an organization's values, norms and expectations. According to Asrar-ul-Haq and Anwar (2016) culture is reflected in the values of an organization, where values are reflected in norms that influence specific practices. Management within an organization influences these cultural elements through the rules and regulations they instill and also the example managers personally set in the workplace e.g. praising certain behaviors such as knowledge sharing. Organizational culture affects how individuals judge the importance of knowledge and determines the social interactions (formal/informal methods) through which it will be shared.

Organizational culture relating to communication is another important factor that can enable knowledge sharing within an organization. Communication in the broader sense affects knowledge sharing in that a lack of which can significantly hinder knowledge sharing or make it virtually impossible. Communication between individuals is a critical factor for knowledge sharing and is largely dependent on the opportunities employees have for face-to-face communication. Furthermore, from an organizational perspective, communication may flow vertically or horizontally within a company, which may encourage or discourage individuals to share knowledge. Organizations and individuals need technology to communicate and share knowledge. This technology aspect can be understood from a cultural perspective, in this case connected to the norms and values in the organization.

- **Technology**

Technology is central to knowledge sharing. Asrar-ul-Haq and Anwar (2016) indicated that, technology has its limitations and requires human support, however knowledge sharing in modern organizations also occurs through formal and informal ways and the availability of these can point to organizational values and norms. Formal ways include the regulation, routines and practices to archive knowledge in databases in an attempt to share it with others. Conferences, seminars, magazines, brochures, guidelines, training programs, structured group

works and even the technical tools to share knowledge are also included in the formal ways of knowledge sharing.

- **Motivations**

Organizations need to motivate employees in order to promote a knowledge sharing culture within the organization. Individuals are less interested to share their knowledge without strong motivation (Asrar-ul-Haq & Anwar, 2016). In order to motivate individuals to share knowledge, organizations often use reward systems. Rewards can be monetary or non-monetary incentives to encourage employees. Non-monetary rewards could be a dinner gift or praising certificates to acknowledge services publically (Mayekiso, 2016). Monetary rewards include cash bonuses. These rewards could either have intrinsic or extrinsic value. Organizations have different perceptions about the value of reward systems. Although reward systems are controversial, they are still considered to be an effective tool for management to encourage knowledge sharing among employees (Asrar-ul-Haq & Anwar, 2016).

- **Trust**

Asrar-ul-Haq and Anwar (2016) stated that a lack of trust has been found to be a significant barrier to knowledge sharing between team members. Trust is an integral part of knowledge sharing due to the inherent value in knowledge and trust is one of the key determinants for the existence of knowledge sharing. The level of trust that exists between the individual and the recipient of the knowledge will influence whether or not the knowledge is shared and how it is received (Asrar-ul-Haq & Anwar 2016). If knowledge is being shared by someone that the recipient regards as capable and trustworthy then they can be confident they are not being deliberately misled or simply being given erroneous information. In this sense, trust on the behalf of the recipient is required. It is important that the recipient is able to trust the source and know that it is credible (Asrar-ul-Haq & Anwar 2016). If the source of the knowledge has low credibility, then the knowledge will not be accepted by the receiver.

2.7 Barriers to knowledge sharing

It is argued that if the organizations want to be successful in knowledge sharing, they need to pay attention to the knowledge sharing barriers (Yeşil & Hırlak 2019). Various studies identified a number of barriers for effective knowledge sharing in different organizations. Mayekiso (2016) refers them to various barriers that can hinder the sharing of knowledge. Schwartz and Te'eni (2011) referred to these barriers as characteristics of the knowledge sharing environment that may limit or preclude the knowledge sharing transaction. Cahal and Savita (2012) stated out some barriers to KS, which are lack of training regarding employee's familiarization of new Information Technology (IT) system, culture resistance, lack of time, gender differences, age differences, lack of familiarity and experience with IT system, lack of trust, and differences in experience level, lack of transparent reward and recognition systems and communication flows

However, Yeşil and Hırlak (2019) distinguished between the three types of barriers to knowledge sharing; organizational, individual and technological. Individual barriers are related to lack of time, trust, social network as well as difference in age, education and expertise. Organizational barriers concern lack of organizational vision, strategy, culture and competition between departments. Technology related barriers involve inadequate training and technical support regarding IT and various system related issues (Yeşil & Hırlak, 2019). KS is also viewed separately as a different activity and not part of the organization's objectives. At the individual level, Riege (2005) noted that barriers to KS include lack of communication skills and social networks, differences in culture, lack of time and lack of trust. At the firm level, Riege (2005) identifies the following KS barriers:

- a) Firms are reluctant to promote KS due to lack of economic viability
- b) Firms, especially smaller organizations, do not have adequate infrastructure or resources

c) The physical environment is not conducive to engage and promote KS activities

d) Existing IT systems are not good enough and sometimes there exists mismatches between the organizational needs and what is provided.

This study therefore adopts to generalize all the different types of knowledge sharing barriers namely, individual, organizational and technological as identified. These factors include lack of communication skills, motivation to share knowledge, time constraints, trust, culture, and they are discussed below:

- **Communication skill**

Communication skills include both verbal and codification skills. Team members need to be able to both express their ideas verbally and document them in writing if they are to share their knowledge effectively; when they have poor communication skills, team members are unable to share knowledge amongst one another (Yeşil & Hırlak, 2019).

- **Motivation to share knowledge**

A lack of motivation is a significant barrier to knowledge sharing. The motivation has a strong influence on the knowledge-sharing behaviors of team members. Team members may not want to share their knowledge with other team members, simply because they are not motivated enough (Yeşil & Hırlak, 2019).

- **Time constraints**

A lack of time dedicated to knowledge sharing is a common knowledge sharing barrier and a lack of time for knowledge sharing as a barrier that is experienced by both contributors and seekers of knowledge within a team (Yeşil & Hırlak, 2019).

- **Management support**

Management could create a different set of hindrances to knowledge sharing, which might involve the fear of giving up power, the difficulties of passing on power; and challenging the traditional company style of doing things (Mayekiso, 2016).

2.8 Knowledge sharing communication tools

Knowledge sharing is the process that is managed through various modes of communication and collaboration, which distribute knowledge to members at the right time, in the place and form. Knowledge-sharing communication tools are tools that support knowledge-sharing practices. A study by Assefa (2012) stated that effective engagement of different communication and knowledge-sharing tools for different stakeholders have enabled shared learning and collaboration. Assefa (2012) broadly classify communication tools as synchronous and asynchronous tools. Therefore, the following communication tools from the two categories as described by Assefa (2012) are found relevant to this study and they are discussed below:

- **Internet**

The internet is a platform for sharing knowledge, as team members are able to find knowledge in the form of answers to their questions (Assefa, 2012). The Internet is used by team members to retrieve knowledge, which is then shared with other team members.

- **Intranet**

An Intranet as an in-house version of the web browser and a private network designed to serve the internal (explicit) knowledge needs of a single team (Assefa, 2012). It is a local or restricted communications network. A social intranet can be used to encourage

employee interaction. An intranet is a company-exclusive service that acts as a social platform, information hub and employee communication portal (Assefa, 2012).

- **Note-taking tool to share strategies across teams**

Assefa (2012) stated that, if a company intranet can be a great place to share knowledge with team members, employees occasionally need a more informal knowledge-sharing service. Best of all, it syncs notes from your mobile to your computer automatically. This kind of knowledge sharing may seem more laid back compared to more formal methods like case studies or written reports. However, the casual communication that takes place between employees in note-taking apps can help ease employees into more frequent communication (Assefa, 2012). When employees communicate regularly, knowledge sharing happens more naturally and more often.

While traditional means of knowledge sharing are certainly valuable in the workplace, we need to re-frame how we encourage knowledge sharing among our employees. Using note-taking apps, intranet systems and workflow-oriented project tools, your employees can start to see knowledge sharing in a new, and helpful, light (Assefa, 2012).

- **E-mail**

Assefa (2012) defined emails as a one-to-one or one-to-many communication used to share messages. This electronic modes of communication support mainly decentralized networks of communication. Electronic collaboration communication is the purposeful use of networking and collaboration technologies to support teams in the creation of shared understanding toward knowledge (Assefa, 2012).

- **Video conferencing**

Video conferencing is the technology that allows you to hold meetings with several correspondents who are located in different places while seeing and talking to them in real time (Assefa, 2012).

2.9 Recommendations to enhance Knowledge Sharing

Knowledge sharing ensures that important information, knowledge and expertise is made available, distributed and exchanged amongst team members, within or across the entire team. It is through the capturing, storing and sharing of knowledge that team members can be developed and the outcomes of their work processes enhanced. Jain, Sandhu and Sidhu (2007) stated that effective knowledge management strategies can enhance efficiency, productivity and ultimately achieve long-term corporate goals. Currently, most knowledge-based organizations may have knowledge management strategies that are too general. Knowledge management strategies must be broken down into specific strategies such as knowledge sharing strategies. Therefore, Mayekiso (2016) recommended the following as successful ways to enhance knowledge sharing:

- **Enhancing communication**

Effective communication in virtual teams is required in order to develop high-performance work strategies and processes amongst team members (Mayekiso, 2016). Enhancing communication could strengthen the way in which team members share knowledge. Communication, as an enabler of knowledge sharing has been studied extensively among various studies, and it still holds value as a topic of debate among various researchers Mayekiso (2016). Communication does not only promote voluntary knowledge-sharing behavior but it also increases the transfer of knowledge from one subsidiary to another. Through this communication strategies, Mayekiso

(2016) recommended the following as part of enhancing KS: initiating awareness campaign such as workshops and seminars, investigating and identifying existing knowledge assets and gaps through knowledge audit.

- **Technology**

ICTs enable virtual teams to distribute and share valuable knowledge that resides in team members' capabilities by empowering members with the necessary tools to participate in knowledge sharing (Nove & Puspitasari, 2013). This can be done through designing a knowledge sharing strategy by setting knowledge sharing objectives and knowledge sharing policies as well as developing a knowledge sharing system through repository and knowledge base (Mayekiso, 2016).

- **Incentives and Reward systems**

Implementation of knowledge sharing drivers such as incentives and rewards would help in the enhancement of KS (Mayekiso, 2016). Team members need to be motivated by rewards in order to share knowledge; if not, knowledge-sharing activities could be unsuccessful due to a lack of transparent rewards and recognition systems. Mayekiso (2016) also stated that rewarding team members for knowledge sharing is a common solution for encouraging their participation in knowledge-sharing activities. Incentives systems are contributors in support of knowledge-sharing activities within any team and to achieve this.

2.10 Chapter summary

This chapter provided a review of the related literature focusing on knowledge sharing practices. The chapter highlighted the benefits of KS, enablers and also factors that can inhibit knowledge sharing. The next chapter discusses the research methodology.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This chapter discusses the research methodology for this study. The chapter covers the research design, data collection methods, population, sample, research instrument, reliability and validity, procedures and data analysis.

3.2. Research Methodology

Kothari (2004) defined research methodology as a way to systematically solve the research problem. It may be understood as a science of how research is done. In it, we study the various steps that are generally adopted by researcher in studying the research problem along with logic behind them (Kothari, 2004). It is necessary for the researcher to know not only the research methods/ techniques but also the methodology. Researchers need to understand the assumptions underlying various techniques and they need to know the criteria by which they can decide that certain techniques and procedures will be applicable to certain problems and others will not. Therefore, it is necessary for the researcher to design the methodology's problem as the same may differ from problem to problem.

Research methodology has many dimensions and research methods do constitute a part of the research methodology. The scope of research methodology is wider than that of research methods. Research methodology in addition to research methods it also includes the logic behind the methods used in the context of a study.

The study adopted an interpretivist paradigm applying a qualitative research approach to gain in-depth understanding of the teacher's behaviour toward knowledge sharing at Khomas High School. Thus, the logic behind applying the interpretivist research is that, truth is dependent on participant's interpretation of subjects under investigation. Due to their subject nature, subject

under investigation may be not be interested in generalising their results (Du-Plooy, Davis, & Bezuidenhout, 2014).

3.3 Research design

Kumar (2014) defined research design as the road map that one decides to follow during the research journey to fill the identified gaps based on the research questions as validly, objectively, accurately and subjects being studied as possible.. It is therefore regarded as the conceptual structure within which research is conducted. It is the plan according to which one obtain research participants (subjects) and collect information from them (Welman, Kruger & Mitchell, 2005). It constitutes a blueprint for the collection, measurement and analysis of data to meet the research objectives (Kothari, 2004). This study used a qualitative research approach through a case study research design to provide an in-depth investigation of the teacher's behaviour towards knowledge sharing at Khomas High School.

As defined by Creswell (2014) a case study is a qualitative oriented design which enables the researcher explores in depth a program, event, activity, process, or one or more individual's views points. A case study is therefore an approach in which a particular instance or a few carefully selected cases are studied intensively. As stated in Kumar (2014), participants of an individual, a group of community, an event, a subgroup within a selected population. As explained by Kumar (2014), the basis of selecting participants within a case study should be done through a holistic approach to enable an in-depth exploration of the aspects that you want to be investigated. It is therefore an approach in which a few cases are carefully selected and studied intensively.

For a study to qualify as a case study, it must be done in a bounded system or an entity in itself (Kumar, 2014). Special attention should be on a bounded subject or unit that either very representative or extremely atypical. A case study is therefore characterized by a flexible and

open-ended technique of data collection and analysis. It is based upon the assumption that the case being studied is typical of a certain type and the selection a single case can provide insight into the events and situations prevalent in a group from where the case has been drawn.

Creswell (2014) further highlighted the advantage of a case study design such as; the research study can be much more detailed than would be possible if one is studying a large sample. However, on that being stated, the corresponding disadvantage is that it is much more difficult and often impossible to generalise the findings. It means a case study is of immense relevance when the study focus is on extensively exploring, seeking and understanding rather than confirming and quantifying problems.

3.4 Data collection methods

Kumar (2014) argued that by using qualitative data collection methods, the researcher obtains a richness and depth of data, gathered from complex and multi-faceted phenomena in a specific social context. The qualitative approach offered a flexible and unstructured approach to investigate the problem stated and it also enable the study to explore diversity rather than to quantify, hence it emphasizes on the description and narrations of feelings, perceptions and experiences placing no or less emphasis on generalizations (Kumar, 2014).

Kallio, Pietilä, Johnson and Kangasniemi (2016), stated that an interview comprises of the following features; it includes the interviewer and respondents engaging in a formal interview guided by a sets of predefined questions, the interviewer develops and uses an interview guide. Since the interview is interactive in nature, data was generated by the interaction between the researcher and interviewee through asking probing questions to encourage the interviewee to talk freely when answering the question. The researcher used a range of probes questions and other techniques to gain clarity. In terms of explanation, follow up questions were also used

to obtain a deeper and fuller understanding of the participant's viewpoints. By so doing, the researcher was able to explore all the factors that underpin participant's answers, reasoning's, opinions and beliefs fully. This furnishes the explanatory evidence: which is one of a critical important element of qualitative research data collection methods (Ritchie & Lewis, 2012).

3.5 Population

Population as defined by Okeke and Van Wyk (2015) is a group of persons, objects, items from which samples are taken for measurement. According to Welman, Kruger and Mitchell (2005), a research problem therefore relates to a specific population and the population encompasses the total collection of all units of analysis about which the researcher wishes to make specific conclusions. It is the study object and consists of individuals groups, organisations, human products and events or the conditions to which they are exposed. The population of the study were teachers at Khomas High School, Windhoek.

3.6 Sampling

Kothari (2014) defined sampling as the selection of some part of an aggregate or totality on the basis of which a judgement or inference about the aggregate or totality is made, in other words, it is the process of obtaining information about an entire population by examining only a part of it (Kothari, 2014). As a result, the study used accidental sampling method under non-probability sampling. This non-probability sampling method is risky, as the results obtained from the participants cannot be generalised to the rest of the population. Kumar (2014) affirm that non-probability sampling does not follow the theory of probability in the selection of elements from the sampling population. A sample is the subgroup of the population that a researcher is interested (Creswell, 2014).

Therefore, the sample size of the study consisted of 12 teachers, who were selected using accidental sampling. This method of sampling does not use a sampling frame; instead here, the people included in the sample are purely because they were able to be seen walking past and they were available and willingly to answer the questions. Kumar (2014) stated that accidental sampling is based upon convenience in accessing the sampling population. Meaning, the researcher only stops collecting data when they reach the required number of respondents that they have decided to have in the sample. Participants within the sample were chosen with a purpose to represent a location or type in relation to a key criterion which was only the teachers who were available and willing to participate in the study to ensure that all the key constituencies of relevance to the subject matter are covered (Ritchie & Lewis, 2014).

3.7 Research instrument

Kumar (2014) defined research instrument as anything that becomes a means of collecting information for your study. This study used a semi-structured interview guide. Kallio et.al (2016) explains that semi structured interviews allow the researcher to prompt or encourage the interviewee if they are looking for more information. Additionally, it gives the researcher the freedom to probe the interviewee to elaborate or to follow a new line of inquiry introduced by what the interviewee is saying.

Semi-structured interviews also allow informants the freedom to express their views in their own terms. In reference to (Welman, et al., 2005) an interview guide involves a list of subjects and aspects of these topics that have a bearing on the given theme. The interviewer should raise during the course of the interview. This means that some questions may be used in particular interviews, given the specific organisational context that is encountered in relation to the research subject (Welman, et al., 2005). Using a semi-structured interview guide, the order of questions may also be varied depending on the way in which the interview develops (Welman

et al, 2005). Additional questions may be required to explore the research questions and objectives given the nature of events within particular organisations. Semi- structured interviews offer a versatile way of collecting data.

Patton (2015) highlighted that interview guide lists the questions or issues that are to be explored in the course of an interview and consistency in the inquiry. Furthermore, using an interview guide ensures careful use of interview time; makes the interviewing systematic and comprehensive by deciding well in advance the issues to be explored, lastly it keeps the interactions focussed. Similarly, Kallio et.al (2016) affirm that interview guide is a list of open-ended questions and topics that need to be covered during the conversation usually in a particular order. The open-ended nature of the question defines the topic under investigation but provides opportunities for both interviewer and interviewee to discuss some topics in more detail. It often includes prompts to help the interviewee to answer.

3.8 Trustworthiness of the data

Trustworthiness of the data, the researcher determines the accuracy or credibility, transferability, dependability and confirmability of the findings through various strategies (Dupplooy, Davis & Bezuidenhout, 2014). Trustworthiness of the data is the primary term that is used for validity and reliability in qualitative studies. To reduce threats to the reliability of this study, the researcher used data triangulation. The researcher also tested variables through reading questions with subtopics talking of the same thing in order to provide similar results of data and to confirm emerging findings (Merriam, 2002; Yin, 2009). In this way, the plausibility and truthfulness of the information can be supported.

3.9 Procedures

Procedures refer to the section that explained the manner in which data would be collected. (Creswell, 2014). The researcher got a permission letter (See Appendix --) from the Information and Communication Studies Department. The researcher sought permission from the school principal before data collection. After permission was granted from Khomas High School, teachers were contacted telephonically to set appointments for interviews. The researcher conducted face-to-face interviews and used a phone recorder, and seek permission from the participants to record the interviews session. The researcher also took hand written notes as back up.

3.10 Data analysis

Data analysis involves reading data repeatedly, and engaging in activities of breaking the data down and building it up again through elaborating and interpretation using operational themes (Blanche, Durrheim & Painter, 2014). Data was first captured through feedbacks organised by operational themes. The interviews were structured according to the thematic themes derived from the research questions. As a result, data was analysed using operational themes to do content analysis captured from the interviewees' notes. Content analysis is the process of analysing the contents of interviews or observational field notes in order to identify the main themes that emerge from the responses given by the respondents (Kumar, 2014). Therefore, the data collected through content analysis for this study will be presented in a descriptive narrative form. This will be done by identifying the main themes from the study's objectives as well as assigning codes to the participants whereby their responses will be integrated into the text in the report.

3.11 Chapter summary

This chapter discussed research methodology. The study was guided by an interpretivist research paradigm, and adopted a qualitative research approach employing a case study research design using interviews to collect data. The population of the study was teachers at Khomas High School. Research instruments used to collect data were semi structured interview was used and allowed the researcher to control the interview. Appointments were made for the interviews and data were analysed using content analysis. Confidentiality, anonymity and were granted and information gathered was kept confidential. The next chapter is on data analysis and presentation.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION

4.1. Introduction

This chapter presents the research study findings of a study titled “An investigation of knowledge sharing practices among teachers at Khomas High School, Windhoek”. According to Creswell (2014), qualitative data analysis should be presented hand in hand with other parts of developing the qualitative study, namely, the data collection and the write up findings. As advised by Creswell (2011) qualitative data analysis should involve coding of the data, organizing participant’s views and sentiments accordingly into small units (phrases, sentences, or paragraphs) assigning a label to each unit, using thematic codes as a guiding frames. The coding label can either derived from the exact words of the participants. Data analysis requires a researcher to synthesize through the data collected and that you sort, select and organize information in order to give you a better understanding of the phenomenon under study (Du-Plooy, Davis & Bezuidenhout, 2014). The interview data collected in this study was analyzed through content analysis which is presented in descriptive narrative.

Data was collected from Khomas High School teachers using interviews. Data collection is presented under headings according to research objectives using subheadings and themes which emerged from the content analysis.

The research objectives of the study were as follows:

- a) To investigate the perspectives of teachers towards knowledge sharing.
- b) To find out the barriers and enablers of knowledge sharing.
- c) To determine the communication tools for knowledge sharing and
- d) To come up with recommendations on how knowledge sharing can be enhanced.

The data is presented under the following headings:

i) The perspectives of teachers towards knowledge sharing

This theme looked at the following:

- Teachers view points on understandings of knowledge sharing
- Gaining of new knowledge
- Knowledge to be shared and what not to share
- Frequency of sharing knowledge
- The importance of knowledge sharing

ii) Methods and the communication tools for knowledge sharing

- Methods of sharing knowledge
- Communication tools used in knowledge sharing
- The most preferable communication tool per participant

iii) The barriers and enablers of knowledge sharing

- Factors, which enhance of knowledge sharing by teachers at Khomas High School.
- Challenges experienced by teachers when sharing knowledge.

iv) Teacher's suggestions on improving knowledge sharing

- Ways in which knowledge sharing can be improved at Khomas High School.

4.2. Demographic information

Participants comprise of 12 teachers at Khomas High School. Out of 12 teachers who were the targeted sample, only 11 teachers agreed to participate in the study. For ethical consideration, no personal details were required nor mentioned. The researcher however used codes to presents participants answers logical.

4.3. Participants general information

This section captures participant's general information namely; the codes for each teacher, years of teaching and subjects they taught as shown under Table 4.1 below.

Participants	Years of teaching	Years at School	Subjects they teach
T1	15 years	14 years	Biology , Agriculture and Life Sciences
T2	10 years	9 years	English 2nd Language
T3	12 years	1 year	Afrikaans
T4	11 years	10 years	Biology , Agriculture and Life Sciences
T5	3 months	3 months	English 2nd Language and History
T6	13 years	13 years	Accounting and Business Management
T7	15 years	5 years	Mathematics and Economics
T 8	8 years	4 years	English 2nd Language
T9	6 years	3 years	Mathematics
T10	8 months	8 months	Physical Science and Chemistry
T11	5 years	1 year	Agriculture and Life Sciences

Figure 4.1 Teacher's years of teaching and subjects they teach

Table 1 above represents the years/ working period the teachers have been teaching, the subjects they were teaching, as well as the years they had been at Khomas High School. Results showed that, T1 and T7 had been teaching for 15 years while T5 and T10 (2) had been working for less than a year. Results also reflected that, T1 and T2 both had similar subjects namely Biology, Agriculture and Life Sciences. However, based on the research findings English as 2nd Language is only taught by 3 different teachers who are represented by T2, T5 and T8.

4.4. The perspectives of teachers towards knowledge sharing

Under this theme the following findings are presented: Teachers' view points on understanding knowledge sharing, teachers' ways of gaining of new knowledge, the type of knowledge considered to be shared and what the teachers did not considered to share, frequency means of sharing knowledge as well as the importance of knowledge sharing.

4.4.1 The study wanted to find out teachers' understanding of knowledge sharing.

Results from the participants show that 8 out of 11 teachers understood knowledge sharing as the sharing of information with other colleagues compared to other teachers who understands knowledge sharing as the building bridge of sharing and giving materials to other colleagues.

The respondents were also asked to indicate how they gained knowledge. The results highlight that, 9 out 11 teachers gained new knowledge from the Internet sources. In addition, teachers also gained new knowledge through communicating with others colleagues, through studying, through research, as well as by attending workshops. A small number, 2 out of 11 teachers interviewed said that they gained knowledge through listening to other people's opinions, and exposure.

In response to the question "of determining the kind of knowledge likely to be shared and which knowledge not to share, a mixture of views has been recorded as follow:

- As expressed by T9, no differentiation should be made that implies whatever is known should be shared.
- However, 7 out of 11 teachers have different view regarding what ought to be shared. They stated that, only general knowledge that motivate others, as well as subjects-related knowledge should be shared. In other words, these participants did not signify the need to share personal and confidential information that was confidential.
- Responses from 3 out of 11 teachers (T1, T10 and T11) show that they only considered to share relevant information as well as subject matter knowledge that pertained to the curriculum and the school settings.

It is therefore noted that, the findings revealed out sharing of at Khomas High School is always done on a daily basis knowledge on a daily basis.

With regard to the importance of knowledge sharing, out of 11 teachers only 6 teachers considered knowledge sharing as important, giving the following reasons as to why it is important:

- You get to learn new knowledge through communicating with others. In fact, without sharing knowledge, you will have lack of relevant knowledge” (T6)
- “Knowledge sharing is very important because it is a key for adjustment of our life” (T10).
- It is important to share knowledge because no one’s know everything” (T10)
- “Sharing knowledge is a way of learning for learning is consistent (T2).
- “Knowledge sharing is very important, in order for us to grow in life and build each other in life, we need to update each other with knowledge” (T)11

In addition, other respondents highlighted learner’s performances, education standards, examination results, experiences, teamwork, personal characters as an inborn thing to share

knowledge, all those points were pointed out as probing points that motivated them share knowledge at Khomas High School.

4.5. Methods and communication tools for knowledge sharing

The following data is analyzed under these headings: methods of sharing knowledge, communication tools used in knowledge sharing, the most preferable communication tool per participants.

- Responses reveal that, teachers share knowledge during subjects-based meetings, and mostly through social media's interactive network such as WhatsApp group created for the school.
- On contrary, T1 stressed out that "talking to one another through emails, messages or text-messaging is one of the way we share knowledge with other colleagues."
- Team building activities as well as briefing sessions were also highlighted by T9 and T10 as methods or ways of sharing knowledge with other colleagues.
- In terms of the most preferable communication tool, five (5) out of the 11 teachers responded that they preferred Mobile phones as communication tool due to the fact that they are convenient, fast and easier to use.

Six (6) teachers stated that they preferred oral and verbal communication giving the following reasons:

- It gives a chance to explain yourself by clarifying and there are no restrictions (T1).
- With verbal communication it is the most effective communication tool for knowledge sharing (T6)
- Additionally, with verbal communication, one can make another person to easily understands (T11)

Emails was also chosen by T3 who stated that, one can preserve the emails longer.

4.6. The barriers and enablers of knowledge sharing

Under this theme, data is presented on the following issues: the enablers of knowledge sharing by teachers at Khomas High School, and challenges experienced by teachers when sharing knowledge.

4.6.1 Knowledge sharing enablers at Khomas High School

The respondents were asked the following question in order to establish factors, which enhance knowledge sharing at the School “Can you please describe anything about your school that makes it possible to share knowledge”?

The participants described Khomas High School in terms of making it possible to share knowledge as follows:

- It is a school with good open- level of communication skills within staff members (T5) and (T3).
- Interpersonal relationship skills make it possible to share knowledge (T11).
- It is well-organised environment with good facilities such as learning classrooms, including free WIFI as well as laboratory for practical’s lesson act as an opportunity to share knowledge (T6).
- Similarly, T11 described it as a school with enough resources, by pointing out free WI-FI in particular
- Teamwork, friendliness and collaboration of the staff members makes it the best school environment for learning and sharing knowledge stated by (T1) and (T2).

4.6.2 Barriers to knowledge sharing at Khomas High School

The respondents were asked about the challenges if any which they faced when sharing knowledge. Although participants from Khomas High had described their school as the best in a well organised environment, they have also indicated the following challenges such as:

- Low internet access, which tend to be unavailable sometimes.
- Knowledge gap between teachers because people were not at the same level of education as well as the age gap.
- Misunderstanding and misinterpretation of the information, which can results in an argument or commotion.
- Specifically, T3 stressed out that, the school facilities are not adequate to cater for the whole school, including the school WIFI which have a limited coverage in all the classroom, meaning the school Wi-Fi services is limited.
- Conveying messages expressed orally, secondary information is also a challenge as was highlighted by T1, most of the information being received is always secondary information whereby it is a challenged, as it has to be transferred.
- Poor contextualize of vital information shared by teachers to learner, which is causing the learners to unable to comprehend, this is also a challenge stated by T10.

4.7. Teachers suggestions on improving knowledge sharing

The teachers came up with the following suggestions on how to improve knowledge sharing at the School:

- There is a need for more informative, consistent meetings and gatherings especially with new teachers, which needs to be organised by the advisory teachers as a strategy for mentoring each other or new teachers.
- T3 specifically suggested that, there is a need to increase the level of technology advancement as well as communication workshops for all the teachers.
- In order for the knowledge sharing to be improved at the school, the communication between the teachers and the principal should flow well.
- Due to the challenges of low internet access at the school sometimes, it was suggested by T6 that, internet access should be improved to make it easier for both the teachers and learners at Khomas High school, indeed a stronger WI-FI.
- Soo many platforms for sharing knowledge needs to be introduced such as Learners Representative Council to help the teacher's air their main viewpoints regarding the school curriculum through this platform.
- Team building activities was also indicated by T11 to enhance interpersonal relationships in knowledge sharing.
- A proper library with effective books was also suggested as a way in which knowledge sharing can be improved as teachers and learners would be able to acquaint themselves with the available materials (T11).
- A well organised computer lab as well as a school hall with speakers to communicate with microphones was also suggested by T10.
- As a matter of facts, "teachers need to value each other's ideas because, learning is a process and we need to learn from each other as quoted from T7".

4.8. Chapter summary

This chapter presents and discussed data collected from teachers at Khomas High School by the use of interviews tool. For confidentiality purposes, the names of the teachers were not mentioned instead they were coded as T1 to T11. Data collected were presented according to the research objectives of this study. The study found out that most teacher's perceptions towards the understandings of knowledge sharing is the sharing of information with other colleagues as well as the building bridge of sharing and giving materials to other colleagues. The study also revealed that, most teachers do gain new knowledge through listening to others ideas, through reading, research teaching and through exposures.

However, the study indicated that, most teachers considered sharing subject-based or school related knowledge, as well the knowledge that will build, develop and motivate other teachers rather than sharing their personal nor private information. Hence, few teachers only considered to share the knowledge that they considered relevant. Furthermore, most teachers do share knowledge on daily basis as they considered knowledge sharing as important aspects of learning new ideas and as a way of building one another to help them grow. Moreover, teachers have experienced different challenges such as slow internet access at the school and many others challenges. Thus, a strong Wi-Fi connection as well as the advancement of technology was suggested by the teachers to be improved at the school in order to improve the performances of learners. The next chapter will present the discussion of findings, conclusion and recommendations.

CHAPTER 5: DISCUSSION OF FINDINGS, SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1. Introduction

This chapter discusses and interprets the findings of the study presented in chapter four (4). The chapter also includes summary of findings, conclusions and recommendations.

5.2. Discussions of findings

Du-Plooy, Davis, and Bezuidenhout (2014) highlighted that, key findings of qualitative methods data should be identified and evidence should be arranged in such a way as to convince the reader of the validity or trustworthiness of the results. The discussion of the findings in this chapter is done under the following subheadings drawn from the research objectives:

- a) The perspectives of teachers towards knowledge sharing
- b) Methods and the communication tools for knowledge sharing
- c) The barriers and enablers of knowledge sharing
- d) Recommendations on how knowledge sharing can be enhanced and improved.

5.2.1 The perspectives of teachers towards knowledge sharing

As defined by Manamela, (2017) knowledge sharing can be measure by using sets of enabling techniques that facilitate the exchange of different types of knowledge between team members. This means, knowledge sharing practices should include all possible actions that are aimed at improving the internal flow of information and use of knowledge within a team. However, as claimed by Chaudhry (2004) knowledge sharing is a conscious process, and may not be viewed as unique process, especially among teachers who may be confronted by daily issues. This may include a discussion on current movements of education reform and school improvement.

As reflected by Manamela (2017) and Chaudhry (2004), this study findings also revealed that, teachers at Khomas High School seemed to understand knowledge sharing as a mere process of sharing of information with other colleagues. This is a clear indication that there is no clear distinguishing between information sharing and knowledge exchange as a gap filling using supporting sources like when sharing materials with each other's.

Since knowledge sharing is a complex human process, a probing question was designed to validate how participants gain new knowledge. The rationale of sharing knowledge is a key component amongst team members operating within one environment as it enables them to form norms, values and rituals (Manamela, 2017). The manner in which such team members share information may therefore contribute to the formation of Community of Practice (CoP), a signified way of documenting one's practices by creating rules and codes, sharing experiences, documenting and managing knowledge to facilitate learning in both public and private sector organizations.

In this regard, findings on this study confirmed that, teachers at Khomas High School do gain new knowledge by a means of sharing ideas regularly, asking questions relating to own research projects and by asking clarity regarding specific issues discussed at meetings. There were also those who indicated that they learn new ideas through attending workshops and by searching the internet search engines like Google.

Due to different cultural beliefs regarding personal knowledge and general knowledge, deciding on what to share when interacting with each other is important especially within a community of practice. To be specific, tacit knowledge and explicit knowledge both realised as a source of learning within organisation, which may eventually create uniformity shared through staff meeting, workshops and social gatherings.

Rusuli and Tasmin (2010) support the sentiments that, the effectiveness of knowledge sharing activities in organization has the potential of improving customer services.

In order to find out the importance of sharing knowledge, an explorative-nature of question was designed to enable participants express their views. The rationale of this question allowed the researcher to determine what is essential at the same time discovers constraining factors that may hinder the process of sharing knowledge. As indicated by Al- Gharibeh (2011) knowledge is a vital asset, yet sharing it will not be achieved if there is a lack of knowledge sharing culture, trust and motivations. This may be realised by examining different three main factors namely culture, motivations and trust as knowledge sharing enablers that may be used to promote and enhance knowledge-sharing practices.

To fill this gap, is important to understand these enablers as they play a key role in promoting and enhancing knowledge sharing practices. To fulfil the study's ultimate aim, these findings revealed that, some teachers have considered knowledge sharing as important not only to enhance learning and problem-solving skills but also to reduce redundancy and irrelevant practices that may affect productivity. Findings also means, knowledge sharing is very important because it is a key for adjustment of one life because no one know everything, therefore sharing knowledge is the only way of learning. On contrary, through knowledge sharing, inexperienced teachers will learn from the experts by sharing personal experiences, failures and wisdom by sharing related information.

5.2.2 Methods and the communication tools for knowledge sharing

As indicated by Rusuli and Tasmin (2010) people within a group easily exchange views and ideas through platforms like meetings, discussion and forums. Depending on the convenience and environmental and social setting, people in such groups tend to choose what is most appropriate to engage with each other or share their tasks. In this regard, findings show that, some teachers at Khomas High School tended to share knowledge through face-to-face in subjects-specific meetings and team building activities as well as management briefing sessions.

Although not all forms of communication tools may support knowledge-sharing practices effectively, some participants indicated that they communicate through emails, text messaging or SMES and interactive social media network such as a WhatsApp group created for the school. As stated by Assefa (2012) effective engagement should be determined by the nature of the message and the kind of knowledge sharing tools used for different stakeholders. It also means a decision must be made to determine the effectiveness of communication tool to enabled learning, collaboration or mere-dissemination of information. As further listed by Assefa, (2012), Internet, Intranet, note-taking tool, e-mail, and video conferencing are common communication and interactive platforms likely to be used in a school setting, while instant communication tools likely to be used

On this regard, mobile phones, emails, photocopies notes and memos, noticeboard, computers networks were listed as commonly used communication tools for knowledge sharing amongst teachers. However, some teachers stated that the use of texting messaging via SMS and WhatsApp mobile application as best communication tools as it appears to be fast, easier to use and convenient means of disseminating information instantly.

5.2.3 The barriers and enablers of knowledge sharing

A question on what likely to motivate knowledge sharing amongst each other was constructed to enable the researcher to determine the kind of constraining factors that may hinder the process of sharing knowledge. This question was designed to enable participants to reflect on own personal circumstances and views regarding the subject investigated. As noted by Yeşil and Hırlak (2019) common factors such as lack of communication skills, time constraints, trust, culture and lack of motivation to share own opinions are noted as hindering factors within organisation. However, they can be categorised into three types of barriers to knowledge sharing namely; organizational, individual and technological.

The study however pointed out the following as factors that motivated the teachers at Khomas High School to share knowledge: learner's performances, education standards, examination results, experiences, teamwork, as well as personal characters as an inborn thing to share knowledge. Individual barriers included lack of time, trust, social network as well as difference in age, education and expertise. Organizational barriers concern competition between departments. Technology related barriers involve inadequate training and technical support regarding IT and various system related issues.

Individual barriers are related to lack of time, trust, social network as well as difference in age, education and expertise. Organizational barriers concern competition between departments. Technology related barriers involve inadequate training and technical support regarding IT and various system related issues. Although teachers at Khomas High School described their school as the best and well organised environment with good open-level of communication skills within staff members as well as teamwork, and collaboration of the staff members making it possible to share knowledge, the study also confirmed challenges that teachers were facing at Khomas High School namely, low internet access, knowledge gap between teachers caused different levels of education as well as age, misunderstanding and misinterpretation of the

information which sometimes resulted in an argument, lack of school facilities, conveying of secondary information and also learner's failure.

5.3. Summary of the findings

This section of the chapter contains summaries of the findings of the study conducted on the title "An investigation of knowledge sharing practices among teachers at Khomas High School, Windhoek". The summary of findings is presented according to the research objectives of this study as follow.

5.3.1 The perspectives of teachers towards knowledge sharing

According to the teacher's viewpoints, knowledge sharing is a necessity and it should be shared more often. Teachers also believed that, knowledge sharing is about the knowledge that they use to develop teaching practices in school. The results of this study revealed that, is a clear indication that there is no clear distinguishing between information sharing and knowledge exchange as a gap filling using supporting sources such as when teachers share materials with each other's. The study findings also revealed that, teachers considered sharing general knowledge, and subjects-related knowledge but not confidential related information that might be personal.

5.3.2 Methods and the communication tools for knowledge sharing

The study indicated that, some teachers at Khomas High School tend to share knowledge through face-to-face in subjects-specific meetings and team building activities as well as management briefing sessions. Some participants also indicated that they communicate through emails, text messaging or SMES and interactive social media network such as a WhatsApp group created for the school.

5.3.3 The barriers of knowledge sharing

5.3.3.1 Barriers

The study found out that teachers at Khomas High School encountered the following challenges;

- a) Low internet access, which tend to be unavailable sometimes.
- b) Knowledge gap between teachers because people are not at the same level of education as well as the age gap.
- c) Misunderstanding and misinterpretation of the information, which can result in an argument or commotion.
- d) School facilities are not adequate to cater for the whole school, including the school WIFI which have a limited coverage the entire classroom, meaning the school Wi-Fi services is limited.
- e) Conveying messages expressed orally (secondary information is also a challenge; most of the information being received is always secondary information whereby it is a challenge, as it has to be transferred.
- f) Poor contextualize of vital information shared by teachers to learner, which is causing the learners not to comprehend.

5.3.3.2 Enablers

The study found the following as the factors that enabled knowledge sharing to take place at the School:

- Good open- level of communication skills within staff members
- Interpersonal relationship skills make it possible to share knowledge

- A well-organised environment with good facilities such as learning classrooms, free WIFI and school laboratory for practical's lesson that act as an opportunity to share knowledge
- Adequate school resources, pointing out free WI-FI in particular
- Teamwork, friendliness and
- Collaboration among staff members

5.4 Conclusions

This section of the chapter shows how the study reached its objectives. The main objective of this study was to investigate the knowledge sharing practices among teachers at Khomas High School, Windhoek, Namibia. The study reached/met its objectives. This section is organized according to the study objectives:

- a) To investigate the perspectives of teachers towards knowledge sharing.
- b) To find out the barriers and enablers of knowledge sharing.
- c) To determine the communication tools for knowledge sharing and
- d) To come up with recommendations on how knowledge sharing can be enhanced.

5.4.1 To find out the perspectives of teachers towards knowledge sharing

Overall, knowledge sharing is a learning activity with which teachers not only professionalize themselves, but also contribute to the professional development of the learners and their colleagues. Different new perceptions have contributed positively to the development of teacher's teaching practices both at individual and team levels by sharing their own ideas and opinions and by doing research and studying.

5.4.2 To find out the barriers and enablers of knowledge sharing

The attitude towards knowledge sharing is not only affected by an individual's sensible self-interest, but also affected by culture and policies. The study concluded that, although knowledge sharing was considered to be vital to the school, there was a lack of knowledge sharing culture, trust and motivation. Some teachers were less interested to share their knowledge without strong motivation. The level of trust that existed between the teachers' influence whether knowledge was shared and how it was received.

5.4.3 To determine the communication tools for knowledge sharing

The study concluded that, the school's information communication tools infrastructures was unable to provide adequate and consistent access to Internet communication tools, thus teacher's interactions using emerging technologies tools was limited.

5.5 Recommendations

One of the objectives of this study was to come up with recommendations on how knowledge sharing can be enhanced. Therefore, this section provides the following recommendations:

- Teachers needs to participate in activities that will enhance knowledge sharing across teacher teams, activities such as educational forums as well as activities that will involve all teacher teams and the whole school community e.g. school assemblies.
- There is a need for more informative, consistent meetings and gatherings especially with new teachers which needs to be organized by the advisory teachers as a strategy for mentoring each other more particularly the new teachers.
- It is important for teachers to develop a knowledge-supportive culture, where knowledge sharing is appreciated.
- There is a need to increase the level of technology advancement where teachers can also influence knowledge sharing by creating IT (Information Technology) collaboration for social interaction with other teachers across the country.

5.6 Final Conclusion

The study focused on the title “An investigation of knowledge sharing practices among teachers at Khomas High School, Windhoek”. The main objective of the study was to investigate the knowledge sharing practices among teachers at Khomas High School, Windhoek, Namibia. The population of the study was teachers at Khomas High School, Windhoek. The sample size of the study was 12 teachers, however only 11 participants agreed to participate in the study. The study used a qualitative research approach to collect data. The sampling techniques used by the study were accidental sampling. The instrument used to collect data was a semi-structured interview guide. Content analysis was used to analyse data from the interviews was used.

The study found that the enablers that motivates teachers to share knowledge included learners’ performance, education standards, examination results, experiences and teamwork. Recommendations and suggestions were given in which knowledge sharing can be improved at the school. The study indicated that, there is a need for more informative meetings as well as the need to increase the level of technology advancement.

6. References

- Agyemang, F.G., Dzandu, M.D. & Boateng, H. (2016). Knowledge sharing among teachers: The role of the Big Five Personality traits. *VINE Journal of Information and Knowledge Management Systems*, 46 (1), 64-84, <https://doi.org/10.1108/VJKMS-12-2014-0066>
- Al-Gharibeh, K.M. (2011). *The knowledge enablers of knowledge transfer: An empirical study in telecommunications companies*. Retrieved from: <http://www.ibimapublishing.com/journals/IBIMABR/ibimabr.html>
- Assefa, E.D. (2012). *Communication tools for improved knowledge sharing in rainwater management: A case study of the Nile basin development challenge*. Retrieved from: https://cgspace.cgiar.org/bitstream/handle/10568/16981/elias_damtew_thesis.pdf
- Asrar-ul-Haq, M. & Anwar, S. (2016). *A systematic review of knowledge management and knowledge sharing: Trends, issues, and challenges*. Retrieved from: <http://dx.doi.org/10.1080/23311975.2015.1127744>.
- Baker, T. L. (2000). *Qualitative research studies*. 2nd ed.: London, UK: Sage publications
- Blankenship, S. S. & Ruona, W. E. A. (2008). *Exploring knowledge sharing among members of a community of practice*. Retrieved from: <https://files.eric.ed.gov/fulltext/ED501645.pdf>
- Boelens, H, (2007). *Knowledge management in secondary schools and the role of the school librarian*. Retrieved from: <https://www.questia.com/library/journal/1P3-1511379611/knowledge-management-in-secondary-schools-and-the>

Cahal, S.S & Savita, G. (2012). *Knowledge sharing among University teaching staff: A case study*. Retrieved from:

https://www.researchgate.net/profile/Savita_Gautam4/publication/230660035_KNOWLEDGE_SHARING_AMONG_UNIVERSITY_TEACHING_STAFF_A_CASE_STUDY

Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches*. London, UK: SAGE Publications Ltd.

Creswell, J.W. (2012). *Research design: Planning, implementing and evaluative approach*. USA, New Jersey: Prentice Hall.

Du, P. C. F., Davis, C., & Bezuidenhout, R.M. (2014). *Research matters*. Cape Town: South Africa: Juta & Company Ltd.

Hubert, C & Lopez, B. (2013). *Breaking the barriers to knowledge sharing*. Retrieved from: https://tees.tamu.edu/media/344949/knowledge-sharing_apqc.pdf

Hirlak, B. & Yeşil, S. (2019). *Exploring knowledge-sharing barriers and their implications*. Retrieved from:

https://www.researchgate.net/publication/326148151_Exploring_Knowledge-Sharing_Barriers_and_Their_Implications/download

IFLA. (2015). *IFLA school library guidelines*. 2nd. ed. Almere, Netherlands: International Federation of Library Associations and Institutions. Retrieved from:

<https://www.ifla.org/files/assets/school-libraries-resourcecenters/publications/ifla-school-library-guidelines.pdf>

- Jain, K. K., Sandhu, M.S. & Sidhu, K. G. (2007). *Knowledge sharing among Academic staff: A case study of business schools in Klang Valley, Malaysia*. Retrieved from: https://www.academia.edu/8601983/Knowledge_Sharing_Among_Academic_Staff_A_Case_Study_of_Business_Schools_in_Klang_Valley_Malaysia
- Kallio, H., Pietilä, A.M. Johnson, M., & Kangasniemi, M. (2016). *Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide*. Journal of Advanced Nursing. Retrieved from: DOI.ORG/10.1111/JAN.13031
- Kothari, C.R. (2004). *Research methodology: Methods & techniques*. (2nd Ed.). New Delhi , India: New Age International Ltd.
- Kumar, R. (2014). *Research methodology: A step-by-step guide for beginners*. 4th.ed. London, UK: SAGE Publications Ltd.
- Leaky, L.L. (2012). *Exploring knowledge sharing and creation practices among a selected of library staff at the university of the Western Cape*. Retrieved from: https://etd.uwc.ac.za/xmlui/bitstream/handle/11394/2920/Lekay_MBIBL_2012.pdf?sequence=1&isAllowed=y
- Lou, S. J, Yang, Y.S. Shih, R.C & Tseng, K.H. (2007). *A study on the knowledge sharing behavior of information management instructors at technological Universities in Taiwan*. Retrieved from: [http://www.wiete.com.au/journals/WTE&TE/Pages/Vol.6,%20No.1%20\(2007\)/30_Lou44.pdf](http://www.wiete.com.au/journals/WTE&TE/Pages/Vol.6,%20No.1%20(2007)/30_Lou44.pdf)

- Manamela, B.E. (2018). *A knowledge-sharing practices by legal information professionals at Hogan Lovells: Law firm in South Africa and England*. (Master Thesis, University of South Africa, Pretoria, South Africa). Retrieved from: http://uir.unisa.ac.za/bitstream/handle/10500/24389/dissertation_manamela_be.pdf?sequence=1&isAllowed=y
- Mayekiso, N. (2013). *Knowledge sharing practices in academic libraries with special reference to the Unisa Library*. Retrieved from: https://open.uct.ac.za/bitstream/handle/11427/11685/thesis_hum_2013_mayekiso_nozibele.pdf?sequence=1
- Merriam, S. B. (2002). *Qualitative research in practice: examples for discussion and analysis*. San Francisco, CA: Jossey-Bass.
- Okeke, C., & Van Wyk, M., (2015). *Educational research: An African approach*. Cape Town, South Africa: Oxford University Press Ltd.
- Mubuyaeta, M.M. (2016). *Knowledge Management Practices: a case study of the ministry of gender equality and child welfare*. (Master's thesis). Windhoek, Namibia: University of Namibia.
- Nonaka, I. & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford, United Kingdom: University Press.
- Nove , E. V. A & Puspitasari, D. (2013). *Knowledge sharing in libraries: a case study of knowledge sharing strategies in Indonesian University libraries*. Retrieved from: <http://library.ifla.org/200/1/207-anna-en.pdf>
- Paloti, R. G. (2004). *Knowledge sharing*. Retrieved from: <https://core.ac.uk/download/pdf/11887355.pdf>

- Patton, M.Q. (2015). *Qualitative research and evaluation methods*. (3rd Ed.). London, UK: Sage Publications.
- Postolache, A. (2017). *5 Benefits of knowledge sharing within an organization*. Retrieved from: <https://www.quandora.com/5-benefits-knowledge-sharing-organization/>
- Ritchie, J. & Lewis, J. (2014). *Qualitative research practice: a guide for social science students and researchers*. London, New Delhi: SAGE publications Ltd.
- Rismark, M & Sølvsberg, A.M. (2011). Knowledge sharing in schools: a key to developing professional learning communities. *World Journal of Education*, 1 (2), 150-160. Retrieved: from: <https://files.eric.ed.gov/fulltext/ED501645.pdf>
- Rusuli, M.S.C & Tasmin (2015). *Knowledge sharing practice in organization*. Retrieved from: https://www.researchgate.net/publication/277997198_Knowledge_sharing_practice_in_organization
- Sahu, P.K. (2013). *Research methodology: A guide for researchers in agricultural science, social science and other related fields*. New Delhi, India: Springer India
- Schwartz, D. G. & Te'eni, D. (2011). *Encyclopedia of knowledge management*. 2nd. Ed.1 & 2. London, UK: IGI Global
- Tao Li, Hou L. & Wei Hu. (2011). *An investigation of knowledge sharing on campus among teachers*. Retrieved: from: <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5998908&tag=1>
- Taylor D. & Procter M. (2008). *Doing a literature review*. Retrieved from: <https://www2.le.ac.uk/offices/ld/resources/study-guides-pdfs/dissertation-skills-pdfs/doing-a-literature-review-v1%200.pdf>

Welman, C., Kruger, F., Mitchell, B. (2005). *Research methodology*. 3rd.ed. Cape Town, South Africa: Oxford University Press Ltd.

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.

APPENDIX A: INFORMED CONSENT FORM

Title of Research Project: “An investigation of knowledge sharing practices among teachers at Khomas High School, Windhoek”.

Researcher: Hileni N. Nepaya

Student number- 201069733

Supervisor: Prof. C. T. Nengomasha - 061 206 3641

cnengomasha@unam.na

Information

This research investigates knowledge sharing practices among teachers at Khomas High School. It is being conducted in partial fulfillment for the BA in Library and Information Science at the University of Namibia.

All the information gathered as part of this study is confidential. No names will be published in the write up of the findings and confidentiality and anonymity will be adhered to at all times.

Participation is voluntary, and you may choose not to participate or withdraw from participation at any time. I however appeal to you to help in the success of this research through your participation.

If you voluntarily agree to participate in this study, please indicate your consent by signing this form.

Signature:

Date : _____

APPENDIX B: INTERVIEW GUIDE FOR TEACHERS

An interview guide to investigate knowledge sharing practices among teachers at Khomas High School, Windhoek.

1. General information

- 1.1 How long have you been a teacher?
- 1.2 How long have you been in this school?
- 1.3 What subject do you teach?

2. Perspectives of teachers towards knowledge sharing

- 2.1 What is your understanding of knowledge sharing as a teacher?
- 2.2 How do you gain new knowledge?
- 2.3 What knowledge do you consider to share and what not to?
- 2.4 How often do share knowledge?
- 2.5 Do you think knowledge sharing is important? Please motivate your answer.

3. Methods and communication tools for knowledge sharing

- 3.1 How do you share knowledge with your colleagues?
- 3.2 What communication tools do you use for knowledge sharing?
- 3.3 Of the tools you mentioned above which one you prefer. Please motivate your answer

4. Barriers and enablers of knowledge sharing

4.1 What motivates you to share knowledge at your school? (*NB: Probing points; the idea of acquiring knowledge, **rewards/bonus** and strengthen relationship amongst co-workers*)

4.2 Can you please describe anything about your school that makes it possible to share knowledge?

4.3 What challenges have you experienced in knowledge sharing?

5. Teachers' suggestions on improving knowledge sharing

5.1 Can you suggest ways in which knowledge sharing can be improved at your school?

APPENDIX C: RESEARCH LETTER

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340 Mandume Ndemufayo Avenue, Pioneerspark
☎ +264 61 206 3111; URL: <http://www.unam.edu.na>



30 April 2019

The Principal
Khomas High School

Re: Request for Permission to Conduct Research

We wish to introduce to you Ms Hileni Nepaya, a fourth year student conducting research in partial fulfillment of the B.A. in Library and Information Science (Hons). Her research project is titled “*An*

Investigation of Knowledge Sharing Practices Among Teachers at Khomas High School, Windhoek”.

We are requesting your assistance by granting the student permission to conduct the study at your School. We rely on the support of our stakeholders for the success of our programmes. Her contact details are 2063641 and hnepaya@unam.na

Thank you in advance for your support.

Yours Sincerely

A handwritten signature in black ink, appearing to read "C. Nengomasha".

Prof C.T. Nengomasha

Supervisor, Department of Information and Communication Studies

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