

**SHARING OF TACIT KNOWLEDGE AMONG LECTURERS IN SUPPORT OF
REMOTE TEACHING AND LEARNING AT UNIVERSITY OF LIMPOPO, SOUTH
AFRICA**

BY

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DEDICATION

This work is dedicated to me, as a token of encouragement to keep working hard in the journey of my career and attaining a better future. I would also love to dedicate this work to my mother, Constance Sekwakwa; my grandmother, Johanna Sekwakwa; my uncle, Lesiba Sekwakwa; my siblings, Valecia, Thapelo and Phethego Sekwakwa. They have all played their part and encouraged me in so many ways.

DECLARATION

I, Ramokone Mildred Sekwakwa, declare that the study titled: **SHARING OF TACIT KNOWLEDGE AMONG LECTURERS IN SUPPORT OF REMOTE TEACHING AND LEARNING AT UNIVERSITY OF LIMPOPO, SOUTH AFRICA** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.



Ramokone Mildred Sekwakwa

19 April 2022

Date

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ABSTRACT

Sharing tacit knowledge involves sharing skills and experience in the organisation, so that it may be used for the day-to-day duties. This study examined the sharing of tacit knowledge among lecturers in support of remote teaching and learning at the University of Limpopo (UL). The study investigated the importance, strategies, barriers, management and role of Information, Communication and Technology (ICT) towards sharing tacit knowledge among lecturers at UL.

The descriptive research design as well as quantitative and qualitative research approaches were used to conduct this study. The target population of the study was members of the executive management (Faculty Deans and School Directors) and lecturers at UL. The quantitative data from lecturers were collected using questionnaires, while qualitative data from the management were collected using interviews. The total population sampling technique was used to select members of the executive management whereas a stratified random sampling technique was used to select lecturers. The quantitative data were analysed through descriptive analysis, using SPSS software and qualitative data were analysed using thematic data analysis.

The key findings from the study revealed that there is little evidence of a reward system to encourage lecturers to share knowledge. The study also found that UL does not have Knowledge Management (KM) policy to guide lecturers on knowledge sharing. The study recommends the introduction of rewards to encourage lecturers to share TK. The findings further revealed that internal politics is a barrier to Tacit Knowledge Sharing (TKS) at UL. The study recommends that the management develop and implement KM policy to guide Knowledge Sharing (KS) among lecturers. .

Keywords: tacit knowledge, knowledge sharing, remote learning, remote learning, University of Limpopo.

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LIST OF ABBREVIATIONS

KS	Knowledge Sharing
TKS	Tacit Knowledge Sharing
KM	Knowledge Management
ICT	Information, Communication and Technology
NIOH	National Institute for Occupational Health
COPs	Community of Practices
VCOPs	Virtual Community of Practices
UL	University of Limpopo

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CHAPTER ONE: INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction and Background

Knowledge is the main capital for knowledge workers such as academics (Chugh, 2015). Knowledge is a combination of experience, information linked to an expert insight that presents a structure for assessing and integrating new experiences and information (Davenport & Prusak, 1997). Khatun (2018:52) avers, “knowledge is what we know, it involves the mental processes of comprehension, understanding, and learning that go on in the mind and only in the mind”. Knowledge can be divided into two types, namely, tacit knowledge and explicit knowledge (Nonaka, 1994). Tacit knowledge entails the best practices, applied skills, insights and explorations. It is a personal knowledge that is difficult to formalise or express (Mohajan, 2017:17). In universities, tacit knowledge is embedded in lecturers’ minds in the form of experience, know-how, and insight (Panahi, Watson & Partridge, 2012:1096).

The second type of knowledge is explicit knowledge, which according to Panahi, Watson and Partridge (2013:380), is expressed, documented, or published academic knowledge found in books, manuals, papers, and journals. All these types of knowledge need to be shared in a process called knowledge sharing (KS), which is defined as a process where individuals exchange information, expert knowledge and feedback relating to a certain assignment (Kim & Park, 2017). Spender (1996) created a matrix highlighting four types of an organisation’s knowledge and combined it with a tacit and explicit dimension of knowledge (individual and social knowledge) discussed by Nonaka (1995). According to Spender (1996), the first type of an organisation’s knowledge is “individual tacit knowledge (automatic knowledge)”. This knowledge is based on people’s theoretical and practical experience and learning which resides in the human brain and is difficult to express and document. Secondly, this type of knowledge is abetted by individual explicit knowledge (conscious knowledge), which is storable and retrievable from personal records and memory. Thirdly, social tacit knowledge is collective knowledge that represents all knowledge embedded in social and institutional practices, systems, workflows, and culture. Lastly, social explicit knowledge is objectified knowledge that embodies registered patents and designs or information stored on databases (Spender, 1996).

Lecturers need to share knowledge as they are expected to innovate often, routinely come up with new and better ways of doing things (Tjahjono, Muhtar & Abdullah, 2019), which includes teaching and research. Knowledge sharing is the dissemination of implicit or hidden information, ideas, suggestions, and skills or know-how among individuals (Nooshinfard & Nemati-Anaraki, 2014). Sharing tacit knowledge enables lecturers to improve their teaching skills and research knowledge (Semradova & Hubackova, 2014). Knowledge sharing, in other words, is socialisation. When lecturers socialise, they gather tacit knowledge and hold it back as tacit knowledge, only when tacit knowledge is externalised, that is when it is converted into explicit knowledge and during internalisation, explicit knowledge is converted to tacit knowledge (Khuthan, 2018:54).

There are several individual, organisational and technological factors that influence KS within organisations. Individual characteristics, such as expertise, influence individuals to share valuable knowledge with others (Nooshinfard & Nemati-Anaraki, 2014). Chipeta (2018: 226) reveals that “a sense of capability and self-assurance of staff was a requisite for staff to partake in knowledge exchange. Staff who believed in their capability to donate knowledge were motivated to contribute their knowledge to colleagues because they derived pleasure in helping others”. Awad and Ghaziri (2004) state that “personality is one of the factors that influence KS. For instance, extroverted lecturers, self-confidence and feel secure are more likely to share knowledge with others. Whilst, those who are introverted are most likely to be self-centred or security conscious and are likely not to participate KS”. Some of the essential factors that have been found to be influencing successful KS in a university include scholarly communication, collaboration skills, belief, and trustworthy relationships amongst workers (Shanshan, 2014; Nooshinfard & Nemati-Anaraki, 2014). Moreover, individuals with high self-efficacy are more willing to share their knowledge (Imeida, Lesca & Canton, 2016). Yoon and Han (2018) show that KS is higher when employees are more innovative and creative.

Knowledge sharing is voluntary; that is, it cannot be forced although it can be encouraged by top management to reduce poor KS (Zeinabadi, 2020). The management can encourage employees to learn and share knowledge (Islam & Khan, 2014). Wang and Noe (2010); Ma et al. (2014) proffer that top management’s support influences the level and quality of KS. These authors opine that, with an authoritarian

style of management, organisational leaders give their employees no chance to participate in the decision-making process and, therefore, people are less expected to share knowledge. In contrast, they argue that democratic style of management will enable employees to have their voice heard and encourage them to share knowledge with others inside the organisation.

Furthermore, organisational culture and structure (organisational factor) have also been found to influence KS in an organisation. Organisational culture includes values, team collaboration, open communication, trust, experimentation and autonomy (Zięba, 2017). Koko and Makumbe (2020:11) found that “the university under investigation had a dominant rational or clan culture orientation. A significant relationship was found between organisational culture and innovation and organisational culture and KS”. As much as there are factors encouraging KS, there are also factors that hinder KS. Individual factors such as knowledge hoarding behaviour and organisational factors such as organisational structure and culture as well as technological factors affect tacit knowledge sharing (TKS) in an organisation (Islam & Khan, 2014).

In universities, tacit knowledge is utilised to build on a knowledge base and if it is not shared, junior lecturers and newly contracted lecturers will make errors in the learning and teaching process (Keglovits, 2013). Sharing of tacit knowledge can take place through informal and formal interactions, social networking, and employee interactions such as the Community of Practice (CoP) (Ganguly, Talukdar & Chatterjee, 2019: 1106). CoP refers to a voluntary group of people with similar concerns and passion, who share and enhance their knowledge when they come together to explore their similar concerns (Mercieca, 2017).

1.2 Contextual setting

The University of Limpopo (UL) is the institution of higher learning located in the suburban setting of Mankweng Township approximately 30 km east of Polokwane, in the Limpopo Province. It is a result of a merger of the University of the North and the Medical University of South Africa (MEDUNSA). However, the UL and MEDUNSA were separated in January 2015. UL has four faculties, namely, Faculty of Health Sciences, Humanities, Science and Agriculture, and Management and Law. Each faculty in the university has schools. For instance, the Faculty of Health Sciences has two schools, namely, Health Care Science and Medicine; the Faculty of Humanities

comprises the School of Education, School of Languages and Communication Studies and the School of Social Sciences. The Faculty of Science and Agriculture is divided into four schools, namely, School of Agriculture and Environmental Sciences, School of Mathematical and Computer Sciences, School of Molecular and Life Sciences, School of Physical and Mineral Sciences. The School of Economics and Management, School of Law, School of Accountancy and the Turfloop Graduate School of Leadership are divisions of the Faculty of Management and Law. The study constituted all lecturers of the UL from the aforementioned faculties. This is because the sudden change to remote teaching and learning at UL affected all lecturers, with lecturers currently depending fully on computer hardware and software to create and share knowledge.

The University has been using the venue-based or contact mode of teaching. However, since the outbreak of Covid-19, the University shifted to remote teaching and learning, which rely on the use of ICT tools. According to Ratheeswari (2018:45), ICTs are technologies that provide access to information through telecommunications such as the Blackboard (BB) learning system. According to Douglas and Ian (2012), the BB learning system has become the dominant e-learning software; it allows students and lecturers to participate in classes delivered online.

UL started using the BB system in 2010 and currently utilises it even more during remote teaching and learning (Boshielo, 2014). Remote teaching at face to face institutions, including UL was as a result of changes brought by the Covid-19 pandemic that compelled people to maintain social distancing in teaching and learning processes in higher learning institutions (Coman, Tiru, Mesesan-Schmitz, Stanciu & Bularca, 2020). As such, lecturers at face-to-face on-campus learning institutions predictably have little or no experience or training in the delivery of online teaching and learning (Hedding, Greve, Breetzke, Nel & Jansen van Vuuren, 2020:1). Therefore, its success may depend on how well knowledge workers value tacit knowledge in universities (Chugh, 2015), and how well lecturers support each other, share experiences and knowledge on remote teaching and learning. Therefore, it was imperative to conduct a study on sharing tacit knowledge among lecturers in support of remote teaching and learning at the UL, South Africa.

1.3 Research problem statement

Lecturers are the main creators of knowledge in the institutions of higher learning. Such knowledge is stored in the lecturers' minds and various formats that include library databases, intranet, books and manuals. Such knowledge should be optimally shared among the lecturers to improve teaching and learning. There are clear benefits of sharing knowledge. Forward looking organisations have invested in KM and have taken some efforts to encourage KS. However, studies revealed various factors hindering knowledge sharing in organisations. Knowledge hoarding is a common phenomenon among lecturers and is a big challenge on the way to effective knowledge sharing among them (Chong, Yuen & Gan, 2014).

KS is influenced by knowledge hoarding culture and employees' attitudes towards KS. Goh and Sandhu (2013:44) discovered that KS intention is lower among the faculty members of private universities in Malaysia. In some organisations, top managers are a barrier to sharing tacit knowledge because they create bureaucratic and hierarchical organisational structures that are inflexible and hinder KS (Joia & Lemos, 2010). In other organisations, KS among employees is affected by substandard Information Technology (IT) infrastructure, insufficient financial resources, technical support, and lack of IT skilled employees (Komani & Chisomo, 2019). In universities, KS is affected by old-aged lecturers' inability to communicate through ICT tools as they have poor technological skills and find it difficult to adapt to new technologies (Ng & Feldam, 2013).

The situation was exacerbated by Covid-19 lockdown regulations that brought unexpected changes, which resulted in communication difficulties among the employees in many organisations (Soja & Soja, 2020). In institutions of higher learning, communication difficulties imply a low level of KS among lecturers. A low level of sharing tacit knowledge among employees has led to poor service delivery in the public sector (Dikotla, 2019). In universities, a low level of KS may affect the quality of teaching and learning. Not much is known about how UL manages and shares knowledge of the lecturers. As such, the researcher was prompted to conduct this study to investigate sharing of tacit knowledge among lecturers in support of remote teaching and learning at UL, South Africa. It is argued that the quality of teaching and learning in universities will be improved if knowledge flows freely among lecturers and other employees.

1.4. PURPOSE OF THE STUDY

1.4.1 Aim of the study

The study aimed to examine the sharing of tacit knowledge among the lecturers in support of remote teaching and learning at UL, South Africa.

1.4.2 Objectives of the study

The objectives of the study were:

- To explore the importance of tacit knowledge sharing among lecturers in support of remote teaching and learning at UL.
- To establish strategies used to share tacit knowledge among lecturers at UL.
- To analyse the role of top management support toward tacit knowledge sharing among lecturers at UL.
- To identify barriers of tacit knowledge sharing among lecturers at UL.
- To determine the role of ICT as an enabler of tacit knowledge sharing among lecturers at UL.

1.5 Significance of the study

Mligo (2016:332) defines the “significance of the study in terms of what contribution the study will make to the broad literature upon completion”. There are benefits anticipated to be gained from the study. The following are the benefits to be gained from this study:

- The study will make academic staff aware of KS and KM practices as important in the university.
- This study will assist lecturers at UL and other universities to anticipate and overcome the challenges faced when sharing tacit knowledge.
- The study will also inform the management of the importance of their support in KS activities.
- The study will recommend and aid in developing KS or KM policy that will improve KS and minimise the loss of organisational knowledge at UL.
- Lastly, this study will build on the body of knowledge in the field of KM as the researcher intends to publish an article harvested from this study in an accredited journal.

1.6 Scope of the study

According to Simon and Goes (2013), the scope of the study refers to the parameters under which the study operates. This includes defining and clearly stating what the researcher is investigating, as well as the factors that fall within the research's acceptable range (Simon & Goes, 2013). This study was carried out at UL. It was not possible to study the entire population, due to time and cost considerations (De Vos, 2012:224). As such, the target population were lecturers and management (Deans and Directors) at UL. The inclusion criteria were that they are knowledge workers who created knowledge on a daily basis.

1.7 Definition of key terms

1.7.1 Knowledge is “a fluid mix of framed experience, values, contextual information, expert insight, and grounded intuition that provides an environment and framework for evaluating and incorporating new experiences and information” (Davenport & Prusak, 2000).

1.7.2 Tacit knowledge is “implanted in employee actions, habits, and cases of personal activity” (Nonaka, 1994), and it is hard to express (Balogun & Gabriel, 2015).

1.7.3 Explicit knowledge is defined as “a technical or academic knowledge that can be expressed, codified and recorded” (Duan, Yang, Huang, Chin, Fiano, de Nuccio & Zhou, 2022:1491).

1.7.4 Knowledge management is defined as “an organised approach designed to manage the production, sharing, and harvesting; it is also how to use knowledge leverage as an organisational achievement to enhance the ability, speed, and effectiveness of an organisation to offer and deliver goods and services to customers” (Rezaei, Khalilzadeh & Soleimani, 2021:2). Knowledge management refers to facilitating and managing knowledge-related activities, such as the creation, capture, transformation, and use of knowledge (Shehab, Rahim & Daud, 2018).

1.7.5 Knowledge sharing is an act of exchanging knowledge, information, skills, ideas, goals and innovation among peers or organisations (Mohajan, 2019). Kausar, Mohsin and Saadi (2020: 280) asserts that KS is “the process where individuals share their knowledge and experience with one another, within the organisation and with other organisations”.

1.7.6 Remote teaching and learning refers to “higher education instructors providing instruction through online means and often from locations other than traditional school buildings or higher education” (Chapman, Bierbaum & Hatt, 2021).

1.7.7 Community of Practice is defined as “a persistent, sustaining social network of individuals who share and develop an overlapping knowledge base, set of beliefs, values, history and experiences focused on a common practice and enterprise” (de Carvalho-Filho, Tio & Steinert, 2019).

1.7.8 Information, Communication and Technology as applied to education, “are those technologies include computers, the Internet, broadcasting technologies and telephony that can facilitate not only delivery of instruction, but also learning processes itself. It is considered as an important means to promote new methods of teaching and learning” (Md. Shahadat, Mahbub & Che, 2012:67).

1.7.9 Coronavirus Disease 2019 (Covid-19) is “a new respiratory virus known to cause diseases ranging from common cold to extreme acute respiratory syndrome” (Chereka & Ngusie, 2022). The Covid-19 pandemic is one of the most dreadful predicaments of contemporary world, with overwhelming consequences for economies, organisations, and workers all over the globe (Choudhury, Koo & Li, 2020)

1.7.10 Knowledge hoarding is “a phenomenon of not sharing knowledge by amassing and protecting it as one might amass and protect other treasures” (Bilginoglu, 2019:62).

1.8 OUTLINE OF CHAPTERS

The dissertation comprises six chapters and the summary below outlines the way chapters are arranged in the dissertation and briefly explains the contents presented in each chapter in the following manner:

Chapter One: Introduction and background

This chapter introduces the topic and gives a brief background of the study pertaining to the research problem, aim and objectives, role of theory, scope and the significance of the study as well as definition of key terms.

Chapter Two: A literature review

This chapter covers the theoretical framework and the literature concerning sharing of tacit knowledge among lecturers in support of remote teaching and learning. It also discusses the ECI model and Knowledge Enterprise Model.

Chapter Three: Research methodology

This chapter outlines the research methodology employed to undertake the study. The chapter covers research design, population, sampling; data collection methods and data analysis.

Chapter Four: Data analysis and presentation of the findings

This chapter outlines the data analysis, the presentation and interpretation of data as well as the discussions of the data.

Chapter Five: Discussion of the findings

This chapter discusses the findings. Results are discussed and linked to existing literature, research questions and objectives of the study.

Chapter Six: Summary of the Findings, Conclusion and Recommendation

This chapter presents a summary of the findings, conclusions based on the findings, recommendations based on each finding as well as the recommendations for further study.

1.9 Summary

This chapter presented the introduction and background of the study. The research problem, purpose, significance and scope of the study were highlighted. The chapter also covered definitions of important key concepts used in the study. The next chapter discusses the literature review and theoretical framework employed in the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The previous chapter provided an orientation to the study. It introduced the study, covered the research problem, theoretical problem, purpose, significance and scope of the study as well as the definition of the key terms. This chapter provides a literature review, which is vital for constructing a research idea, combining what is already known about a subject and assisting researchers to recognise knowledge gaps in the field of study (Winchester & Salji, 2016:308). A literature review is a survey of existing research topics, which provides an overview of journal articles, books, and other sources relevant to a particular area of research (Galvan & Galvan, 2017). According to Baker (2016: 265), the purposes of a literature review are to:

- “provide a theoretical framework for a topic under study;
- define relevant or key terms and important variable used for the study;
- provide a synthesis overview of current evidence for practice to gain new perspective and support assumptions and opinion presented in manuscripts using research studies, quality improvement project, models and case;
- identify the main methodology and research techniques used; and
- demonstrate the gap (distinguishing what has been done from what needs to be done) in the literature, pointing to the significance for the quality improvement project to be conducted”.

The literature review for this study is based on previously published studies on TKS among lecturers and the study’s theoretical framework, both of which are elucidated in lieu of the objectives of the study, which are presented as subheadings. The objectives of the study were:

- To explore the importance of tacit knowledge sharing among lecturers in support of remote teaching and learning at UL.
- To establish strategies used to share tacit knowledge among lecturers at UL.
- To analyse the role of top management support toward tacit knowledge sharing among lecturers at UL.
- To identify barriers of tacit knowledge sharing among lecturers at UL.
- To determine the role of ICT as an enabler of tacit knowledge sharing among lecturers at UL.

2.2 CONCEPTUALISATION OF THEORETICAL FRAMEWORK

Swanson (2013:122) states that, “theoretical framework is a structure that summarises concepts and theories, which you develop from previously tested and published knowledge that you synthesise to help you have a theoretical background, or basis for your data analysis and interpretation of the meaning contained in your research data”. According to Kivunja (2018:47), “the theoretical framework provides a structure for what to look for in the data, for how you think of how what you see in the data fits together, and helps you to discuss your findings more clearly, in light of what existing theories say”. Therefore, the study adopted two theories, namely; the Socialisation, Externalisation Combination and Internalisation, also known as the SECI Model and the Knowledge Enterprise Model.

2.2.1 SECI Model

The SECI Model was first proposed by Nonaka (1991) and later expanded by Nonaka and Takeuchi (1995). The SECI Model seemed applicable to a study on the sharing of tacit knowledge among lecturers in support of remote teaching and learning at UL. The elements of the SECI Model converge all elements of university social interaction. Literature supports the adoption of the SECI Model in researching sharing of tacit knowledge among lecturers during remote teaching and learning. A study by Farnese, Barbieri, Chirumbolo and Patriotta (2019:7) state that “SECI model allows scholars to root knowledge management research on a measure that reflects a strong conceptualisation, both assessing knowledge generation contrast and integration”.

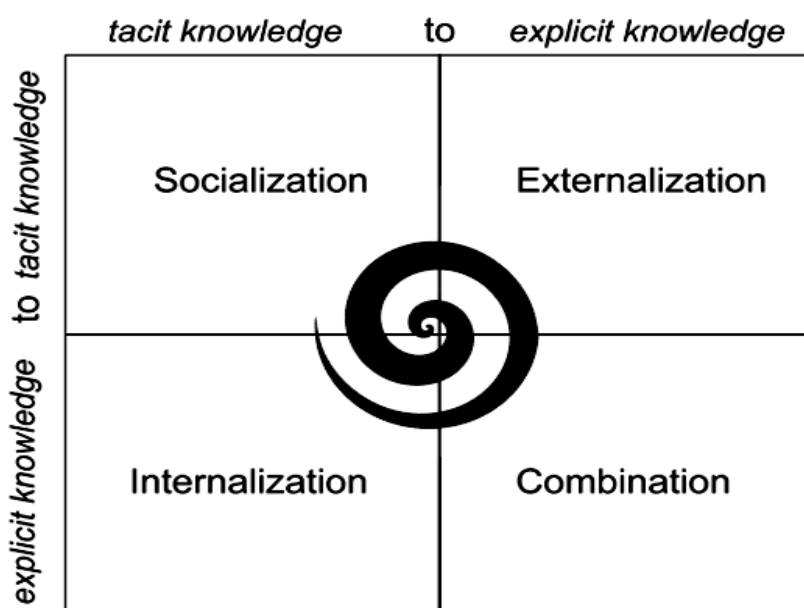


Figure 2.1: SECI Model (Source: Nonaka & Takeuchi, 1995)

The researcher used the four stages as follows:

Socialisation

The first stage of the model, socialisation (from tacit to tacit), is an interactive communication process between two or more individuals. According to Farnese et al. (2019:3), “the spiral starts at the socialisation stage, in which tacit knowledge is exchanged among individuals through shared experience in day by day social interaction”. Through this process, lecturers often interact during formal and informal gatherings to share relevant knowledge. Therefore, it requires trust and the need to achieve a common goal, which is to share tacit knowledge (Zhang & Cheng, 2015). According to Akosile and Olatokun (2020:416), “individuals will be willing to share their knowledge if they feel that an individual can be trusted”. Faith and Seeam (2018:61) used the SECI Model to determine the extent to which knowledge is shared in academia. The results showed that academics are seen to exchange knowledge daily and once a week. The reviewed literature further revealed that lecturers share their knowledge willingly when they sense there is a trusting relationship among them and others (Faith & Seeam, 2018:65).

Externalisation

The second stage is externalisation (tacit to explicit), which is a knowledge conversion process from tacit knowledge into explicit knowledge (Bratianu & Orzea, 2010:49). Externalisation is when lecturers write or document their tacit knowledge. Socialisation leads to externalisation, where all experiences and intuitive knowledge are documented and stored in accessible storage areas such as documents, database, manuals (Faith & Seeam, 2018:60). Chipeta (2018) points out that lecturers use emails, meetings and workshops to share knowledge among themselves.

Combination

The combination (from explicit to explicit) stage is a practice of establishing new explicit knowledge by combining existing explicit knowledge with new knowledge. Individuals combine their knowledge during meetings, telephone and email conversation and through documents and research (Mohajan, 2017). When lecturers meet to discuss and teach or write together a certain model, they combine their expertise. Buunk (2020:38) avers that “combination occurs when information is shared through a computerised network, or data is extracted to create a formalised report”. For instance, newsletters, information bulletins and intranet are among the most used

formal channels to share explicit knowledge from inside or outside the organisation (Nonaka, 1994).

Internalisation

The last stage of the model, internalisation (from explicit to tacit), is a process in which one absorbs (internalises) explicit knowledge into their tacit knowledge. According to Nonaka, Toyama and Byosiere (2001:497), internalisation is when an individual process of embedding explicit knowledge into new tacit knowledge. This process occurs through reading, writing, and conceptualising their experience and findings (Mohajan, 2017). The knowledge shared during socialisation, co-teaching and co-writing is now internalised by lecturers. However, according to Nonaka (1994), this knowledge may also be embodied through learning by doing. When individuals learn by doing, tacit knowledge is shared and it expands into new knowledge (Davis, 2018).

Sabri (2012:7) used the SECI model stages to investigate KS practice levels among lecturers. The results indicated that lecturers in Teknologi MARA Terengganu (UiTMT) generally reported the moderate execution of the combination and internalisation stage. In the combination stage, based on the results UiTMT had, 12.1% lecturers strongly agreed and 44.0% lecturers agreed that they attended conferences/seminar, handed out materials to colleagues, whilst in the internalisation stage, UiTMT had lecturers who generally put their knowledge into action by contributing their ideas to improving syllabus.

2.2.2 Knowledge Enterprise Model

The second theory is the Knowledge Enterprise Model. This model entails five elements, namely, culture, leadership, technology infrastructure, organisational learning and organisational structure. The Knowledge Enterprise Model appeared applicable to a study of sharing tacit knowledge in support of remote teaching and learning among lecturers at UL because the model incorporates all elements of an organisation such as a university.

Knowledge enterprise model.

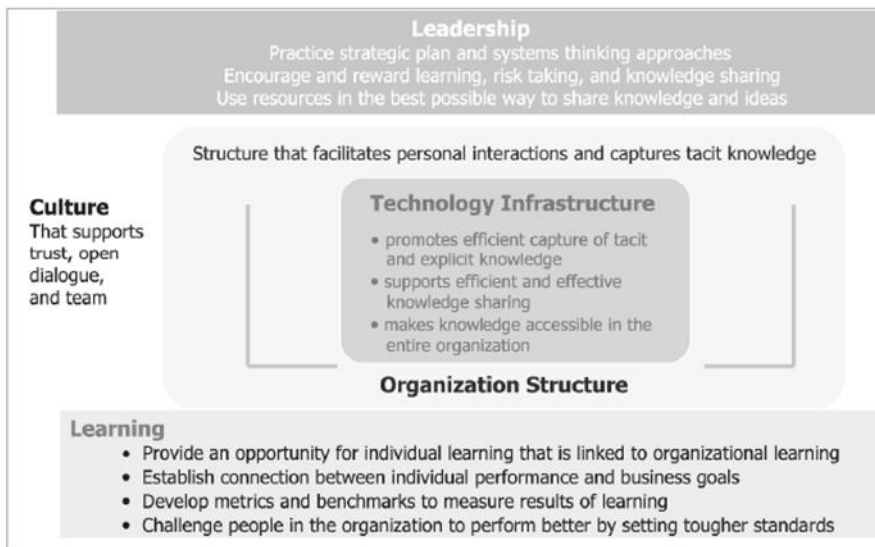


Figure 2.2: Knowledge Enterprise Model

Organisational culture

Organisational culture is “shared beliefs, behaviours, and values of the people within a company. Those norms within any organisation regulate how employees perform and serve customers, how they cooperate with each other, whether they feel motivated to meet goals, and if they are sincerely into the company’s overall mission” (Morcos, 2018). Culture was used to assess if the existing organisational culture influenced KS among lecturers at UL. Organisational culture is an intangible aspect of the organisation, but it plays a vital role in KS. Peralta and Saldanha (2014:544) investigated if knowledge-centred culture (KCC) fosters knowledge sharing equally across employees. The results showed that knowledge-centred culture only promoted KS in employees with a high level of trust and no effect of KS on employees with a low level trust. Al-Kurdi, El-Haddadeh and Eldabi (2018) in a systematic review of 73 articles in peer-reviewed journals, found that “culture played a prominent role in KS associated with the ideas and attitude”.

Anantatmula and Stankoshy (2005:174) state that for KS to take place, organisations need a culture that supports trust, open dialogue and teamwork. A weak organisational culture will have poor contributions to KS among employees while a strong organisational culture will have strong contributions to KS among employees (Kathiravelu, Mansor & Ramayah, 2014). Kanaan, Hussein and Abumatar (2019:1598) investigated knowledge management practices, including KS among

employees. The study found that organisations should realise the importance of trust among their co-workers, and in general, there is much to gain by increasing the levels of trust among co-workers, as this will also increase knowledge sharing between them.

Rezaei, Khalilzaeh and Soleimani (2021:6) examined factors such as “leadership, culture, and structure affecting empowerment and implementation of knowledge management in the organisation”. The study demonstrated the relationship between culture and knowledge management, which showed that culture directly and indirectly affects knowledge management as well as KS in the organisation.

Leadership

Leadership is the act of getting things done with and through people (Fairholm, 2015:9). Leadership was used to determine the extent to which the UL top management support knowledge management programmes at the institution and how they encourage KS. The role of top managers is important to influence the direction and effectiveness of knowledge management in the organisation (Sadeghi & Rad, 2018:152). A well-defined strategic plan and management using their resource and reward systems should encourage KS and learning. Top managers can use their leadership knowledge to find and gauge the needed tacit knowledge and adopt KS culture; they had enormous impact on KS activities (Zhang & Cheng, 2015). Koohang, Paliszkiwicz and Goluchowski’s (2017:525) findings imply that “effective leadership (leading organisation, leading people and leading self) contributes to elevated trust among people, promotes the successful implementation of knowledge management processes, and in turn enhances organisational performance”.

Technology infrastructure

This element highlights that technology infrastructure promotes efficient capture of tacit and explicit knowledge, supports efficient and effective KS and also makes knowledge accessible. Technology encapsulates computer based technologies and includes personal computers (Warner, Bell & Odom, 2018:2). However, in the context of this study, technology is ICT tools used for remote teaching and learning at UL. ICT as defined in Chapter 1 “are technologies that provide access to information through telecommunications such as a blackboard learning system”. The researcher used technology as a guide to establish the role of ICT as an enabler of KS at UL. Technology is an aid for sharing tacit knowledge. Faith and Seem (2018:57) support that “lecturers need to be provided with advanced technology to aid in their sharing

and to build new ideas". The study by Kanaan, Hussein and Abumatar (2019:1598) revealed that "ICT is a tool used to support information and knowledge gathering, processing/creating, distribution and usage".

Organisational structure

Organisational structure is the framework of the relations in an organisation's systems, processes and employees making efforts to achieve goals (Ahmady, Mehrpour & Nikooravesh, 2016:456). In the context of this study, organisational structure should lead to KS during remote teaching and learning. The researcher used organisational structure to find out how UL organisational structure influences sharing of tacit knowledge; for instance, whether the organisational structure at UL supports or compromises KS. Organisational structure should be set up in a way that provides staff with an opportunity to practice knowledge-related activities and communication. Flat organisational structures support the KS while hierarchal ones compromise it (Suppiah & Sandhu, 2011), because the flow of information and communication is from top to bottom (Adegboye, 2019). Huang (2011:5) indicates that "to facilitate KS an organisation needs a trust-based organisational culture which should be supported by an organisational structure which can result in organisation learning and fits in the trust and open cultural environment". Unfortunately, the management at institutions gives less importance to institutional structure and culture (Trehan & Kushwaha, 2012: 253).

Organisational learning

According to Senge (1990:3), learning organisations are "organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together". Organisational learning is a learning process through social interactions at social gatherings (CoP) and organisation level (Bratianu, 2015). In a university setting, mentoring enables organisations to transform individual knowledge into organisational knowledge (Basten & Haamann, 2018:1). In the context of this study, organisational learning was concerned with how learning among lecturers at UL takes place. Organisational learning was used to investigate how the UL top management provides lecturers with continuous learning and use it to improve teaching and learning. Organisational learning is the organisation's capability of learning from its previous experience, learning from the experience of others and sharing knowledge quickly and effectively within the organisation (Dewah & Mutula, 2014:363).

Top management and organisational structure should encourage individual learning that adds to organisational learning. Tougher standards devised to encourage and explore staff performance will help staff to recognise organisational goals (Anantatmula & Stankoshy, 2005). During CoP interactions, tacit knowledge is exchanged and applied, which adds to a learning organisation (Dewah & Mutula, 2014). Yang (2007:87) reported that IS notably contributed to organisational learning, which implied that after the sharing process, the integration and collection of shared knowledge into organisational capability is important to proceed to organisational learning. Chipeta and Chawinga (2017) used a survey to investigate the knowledge management capability of lecturers at Mzuzu University (Mzuni) in Malawi. Through the use of questionnaires, the study found that “41 (66.1%) of the respondents indicated that Mzuni management encouraged staff to continue their education or training by providing them with scholarships. While 37 (59.7%) of the respondents indicated that top management encourages staff local and international conferences, workshops and seminars”.

2.3.1 IMPORTANCE OF TACIT KNOWLEDGE SHARING

Knowledge sharing is the process of transferring knowledge from one source to another. For the purpose of this study, KS was defined as concurrence. Kim and Park (2017:2) define knowledge sharing as “the process of exchanging task information, expert knowledge and feedback regarding a procedure or product in order to create new knowledge or ideas, deal with issues and achieve common goals”.

2.3.1.1 Knowledge

Knowledge is attained by learning and experience (Chatterjee, 2014). Therefore, knowledge and KS are important given that an effective utilisation of knowledge develops into strategic, economic, social, and political importance (Maravilhas & Martins, 2019). In this study, emphasis is put on the importance of tacit knowledge. Tacit knowledge includes relationships, norms, values, and standard operating procedures. Because tacit knowledge is much harder to detail, copy, and distribute, it can be a sustainable source of competitive advantage (Meyer, 1998). According to Clarke (2010:22), the main reason that makes tacit knowledge so important is that it is developed over time by individuals, through experience and understanding and it is also gained from working within an environment.

2.3.1.2 Tacit knowledge and Explicit Knowledge in the organisation

The role of knowledge in organisations should be considered with a new vision. Organisational knowledge is intangible knowledge, deeply embedded in an organisation's operating practices (Vertola, 2020). This knowledge includes the ideas, skills and processes of the organisation. Moreover, tacit knowledge, also known as intellectual capital, is more important in knowledge-based organisations such as universities. This knowledge exists within the minds of lecturers in the university. On the other hand, explicit knowledge in the university is stored in books, journal articles, manuals and reports. For the university to grow and remain competitive, both tacit and explicit knowledge must be retained and shared within the university (Ehijiagbone & Olatokun, 2020).

2.3.1.3 Knowledge sharing

Knowledge sharing has already been defined and now it is necessary to discuss the importance of KS at UL. A link between KS and tacit knowledge exists (Mahlangu, 2014). Sapsed, Gann, Marshall and Salter (2005) found this link and further stated that KS was improved by co-location. Co-location means drawing knowledge from different sources and also sharing knowledge with external or with people in diverse locations. Co-location requires CoP; hence, it facilitates KS (Mahlangu, 2014). Regardless of individuals working side by side or in different locations around the globe, trust is a key determinant in the knowledge sharing process. Along the same lines, collaboration was found to enhance knowledge sharing, and is considered one of the most important factors for group work and teams. Positive relationships among team members are also a key for knowledge sharing in multinational teams (Calderón, Jiménez & Pablo, 2015).

Scholars emphasise the importance of KS, as this process is meant to fill a knowledge gap that could be known or unknown to the knowledge worker (Shehab, Eladwiah, Rahim & Daud, 2018). It can be time consuming and financially costly or even impossible for organisations to fill the knowledge gap (Leonard, 2014). For instance critical tacit knowledge is lost when a lecturer leaves the university without passing knowledge onto others. KS, regarded as a strategic method for gaining competitive advantages, increases the level of service quality within organisations (Shehab et al. 2018).

2.3.1.4 Importance of sharing tacit knowledge

Tacit knowledge sharing is important among lecturers because they work with knowledge in their daily duties (Trehan & Kushwaha, 2012). Sharing tacit knowledge is essential among lecturers as it enhances research output in universities. In universities, it would be challenging for lecturers to conduct research and publish journal articles without peer review or expert opinion. According to Trehan and Kushwaha (2012:254), the main reason for sharing tacit knowledge in universities is that, “the academic environment promotes knowledge publishing”. In this case, sharing of tacit knowledge is used to enhance research productivity (Ibrahim, Ghabban & Selamat, 2018:92), when the number of research production is low.

When lecturers participate in research and publish scientific articles in accredited journals, write books, and participate in public debate, it is called research productivity (Bamigboye, Bamidele, Nihinolawa & Abimbola, 2018). For instance, descriptive findings by Bamigboye et al. (2018:12) show that KS among lecturers and research productivity is high, which means that KS contributed to research productivity. Knowledge has to be shared by lecturers to produce high quality research (Fauri, Tan & Ramayah, 2015). Yu and Zhou (2015:216) aver that when lecturers share knowledge, they also enhance competency, build a happy environment and gain peer respect, social value, status and reputation.

The education sector realised the importance of tacit knowledge sharing and receiving knowledge to keep up with and compete in a knowledge based community (Kausar, Mohsin & Saadi, 2020). The value of sharing tacit knowledge, which suggests sharing personal existing knowledge in the university, is its contribution to creating new knowledge (Mohajan, 2017). The central effect of sharing tacit knowledge must be an alliance between organisational innovation and performance, considering that TKS initiates creation of new knowledge (Lee, 2018:3). This new knowledge cultivates new and innovative foundations that improve organisational practices and enriches decision making abilities (Omotayo, 2015). It also influences knowledge usage among lecturers in support of remote teaching and learning. The new knowledge created can be used in the following ways: “mentorship and coaching, undertaking daily duties and activities at the workplace/work processes; decision making; and for developing new research and innovations” (Kwanya, Maina & Wangamati, 2020: 138).

When lecturers trust each other, they will open-up, interact and share their tacit knowledge without the fear of losing their own unique value (Käser & Miles, 2002). The relationship and collaboration among lecturers will lead to team performance. Obrenovic, Obrenovic and Hudaykulov (2015:37) concur that “building of a strong team identity and positive team characteristics that can lead to a superior team performance and in turn generate positive outcomes, such as innovation or financial performance, either in the context of projects or organisational context”. It is important for lecturers to share the knowledge embedded in their minds in order for others to tap onto that knowledge. This is because “both tacit and explicit knowledge are significant for team performance. Teams that share knowledge freely and openly tend to be more effective” (Obrenovic, Obrenovic & Hudaykulov, 2015:49).

Additionally, sharing tacit knowledge is effective in decision making, service delivery and task performance (Mohajan, 2017). Findings by Chibuzor (2019:11) reveal that organisations use knowledge in problem solving. The task information and knowledge gathered during KS are used to facilitate collaboration and solve problems (Kausar, Mohsin & Saadi, 2020). This is mainly because when knowledge is being shared, the collective memory of the organisation is being enhanced, which leads to better organisational performance (Obrenovic, Obrenovic & Hudaykulo, 2015:34).

2.3.2 KNOWLEDGE SHARING STRATEGIES

Knowledge sharing strategies are implemented to encourage KS. Bloodgood and Salisbury in Fernandes (2017:1090) state that organisations need to identify where knowledge resides in an organisation because this is very important in the design of strategies to ensure that the knowledge being created will be transferred and protected the right way, by the right people. In this study, the knowledge that is being shared or supposed to be shared among lecturers is called tacit knowledge. This type of knowledge may be shared “through personal contact between persons such as sharing a series of events, brainstorming, communities of practice, training, workshops, seminars, telephone calls, face to face meetings, mentoring, documentation of existing knowledge, across departmental information sessions, and library newsletters” (Jasimuddin & Zhang, 2009; Jain, 2014; Abbas, 2015; Tan, 2016). Muchaonyerwa (2015) studied KS strategies in university libraries at the KwaZulu-Natal Province of South Africa. The study proposed developing strategies to

promote knowledge sharing, which can be promoted by arranging seminars, webinars and research conferences that promote interaction with professionals and the learning of new competencies and skills. The following are the common strategies used in practice:

2.3.2.1 Meetings

Meetings in the organisation are held with a different agenda in mind. There are cases where meetings are held to initiate TKS, 'meetings for information exchange' as discussed by Lichtarski (2009:5). They are treated as a basic and easy-to-use tool for tacit knowledge sharing and tacit knowledge management, which emphasises that KS is crucial for learning organisations, and even when official lines of communication are effective, frequent informal interactions are still necessary. Lichtarski (2009:5) further proffers that 'meetings for consulting decisions' "are more complex problems that organisations encounter can be solved by making group decisions". Techniques like brainstorming or discussion panels are used, as well as temporary problem-solving teams that are formed in such cases. Ghafoor and Zhang (2017) investigated effective knowledge sharing among team members as a case perspective of performance climate in project-based organisations. The authors found that the organisation understood the importance of sharing knowledge among team project members, and as a result, the organisation used morning meetings to facilitate KS. One of the best ways to implement KS is through formal meetings, where participants can discuss issues, initiatives, experiences, opinions, and make choices. People share their knowledge, expertise, and opinions during these collaborations (Gehrke, 2020). For instance, Webinars are one type of online meetings that take place in real time, it often includes a presentation as its main focus as well as an interactive discussion and question-and-answer opportunities. Typically, participants use their laptops to watch the presenter and the presentation slides, as well as to listen to the audio stream (Janus, 2016). Meetings are effective for organisational KS, as they allow an adequate flow of knowledge, and during interactions, participants may be able to receive immediate feedback (Rathmel, 2019). On the other hand, meeting as a strategy of sharing tacit knowledge maybe ineffective, especially when the meeting has no agenda and when not all members of the organisation are not involved in the discussion.

2.3.2.2 Conferences

As remote teaching and learning expand, new strategies replace traditional strategies for TKS in universities. Academic conferences are common practices of sharing tacit knowledge among lecturers, where most lecturers prefer to converse through intercontinental or countrywide academic conferences to gain other lecturers' new vision and insights (Yu & Zhou, 2015). However, since Covid-19, things drastically changed from face to face to virtual academic conferences. Falk and Hagste (2021) investigated the extent to which international academic conferences switched to virtual platforms when faced by a sudden Covid-19 related immobility. The findings reveal that "on average, 28% of the conferences change format to virtual, fully or partially, and this proportion is increasing to 78% towards the end of the sample period (March to August 2020)". Virtual academic conferences offer opportunities for collaboration, communication and knowledge creation (Black, Crimmins, Dwyer & Lister, 2020). Tacit knowledge sharing in the form of feedback, ideas and insights on a particular topic, theory or idea and socialisation among lecturers as well as training are generated from academic conferences (Etzion, Gehman & Davis, 2021). Virtual academic conferences are accessible to whoever can log in, with new technologies enabling engagement and KS with no need of face to face contact. For instance, 'Teams' and 'Google meets' allow participants to access links to relevant websites, articles and ask relevant questions (Etzion, Gehman & Davis, 2021).

2.3.2.3 Mentoring

Mentoring is a strategy used to share tacit knowledge in universities. According to the University of Belgrade in Dei and van der Walt (2020:6), mentoring is the most effective way to transfer skills, the know-how, experience and knowledge quickly and inspire loyalty in new or less experienced employees to cooperate in an organisation. Mentoring can occur face to face and online, with the latter also known as e-mentoring, and it allows lecturers to connect and interact from different settings (Marshall, Karvonen, Yell, Lowrey, Drasgow & Seaman, 2013). E-mentoring is carried out through online interaction over a sustained period between a mentor (one with expert knowledge) and a mentee (one who is perceived as less knowledgeable) (Masehela & Madika, 2017:169). An imperial review by Ingersoll and Strong (2012) revealed that, "most of the studies reviewed showed that beginning teachers who participated in some kind of induction performed better at various aspects of teaching, such as

keeping students on task, developing workable lesson plans, using effective student questioning practices, adjusting classroom activities to meet students' interests, maintaining a positive classroom atmosphere, and demonstrating successful classroom management”.

A study by Bencsik, Juhasz and Machova (2014:110) concluded that the estimation of mentor programmes is very positive, from the perspective of the participants. 93.8% of the respondents answered that this type of KS is very useful. Moreover, Miller (2020:6) defines a mentor teacher as a teacher who has achieved a master teacher status and aids a new teacher in acclimating to the school climate during an induction period. The study further revealed that reviewed studies suggest that the best practices for effective mentoring include collaboration, team mentoring and co-teaching. During collaboration, team mentoring and co-teaching lecturers can send e-mail or WhatsApp messages to participants to keep contact during the mentoring period (Kang, Yoo & Park, 2021). Tacit knowledge can be shared by developing mentoring programmes or different workshops that will foster shared mental models that will simplify coordination and collaboration, resulting in better knowledge utilisation and improved team performance (Obrenovic, Obrenovic & Hudaykulov, 2015:37).

2.3.2.4 Community of Practice (CoP)

Community of Practice is a voluntary group of people with similar concern and passion, who share and enhance their knowledge when they come together to explore their similar concerns (Mercieca, 2017). A CoP virtual meeting is referred to as a virtual community (VC) (Razzaque & Eldabi, 2014; Razzaque, 2020). According to Agostini and Mechant (2019:6), a VC is an aggregate of individuals and/or business patterns (in connection with one or more organic communities), that interacts on a shared (complementary) interest in which the interaction is implemented by a common language and eventually a possible common paralanguage, led by some protocols or shared norms. This is realised at least partially in a digitally common space and is supposed and/or mediated by the internet or ICT system (which can be synchronous, asynchronous or hybrid).

Through CoPs, lecturers can meet once in a week or one day monthly through emails, Zoom, Google meet and other ICT tools to share their own experience and tacit knowledge (Holgersson, 2013). Koh and Kim (2004:163) established that knowledge posting or viewing activity is an accurate indicator of a positive perception of community members and loyalty to the community portal. This indicates that positive VC stimulates KS in the organisation, therefore, the university needs an organisational culture that could help in implementing an operational virtual CoP or VC. Duane and Corcoran (2018:12) found that a number of VCoPs have both faculty and staff membership, and both groups seem quite happy to freely share knowledge and collaborate within VCoP.

The right culture will help to supervise and assess KS as well as encourage lecturers to be involved in CoP and share their knowledge willingly (Venktraman & Venktraman, 2018). Farahian and Parhamnia's (2020) study which was based on content analysis, shows that workgroup support had a positive effect on lecturers' knowledge sharing. The lecturers reported that they were usually encouraged to form informal gatherings, research groups, and discussion forums to share knowledge. Workgroup support has a significant impact on the intention of sharing knowledge (Mooghali, 2012). Such support may be manifested in different forms. As Denhardt (1984) suggests, in a collaborative culture, employees make collective efforts to create teamwork and try to be helpful, sensitive, open, and fair.

2.3.3 ROLE OF TOP MANAGEMENT SUPPORT TOWARDS SHARING OF TACIT KNOWLEDGE

Management plays an important role in tacit knowledge sharing during remote teaching and learning as it is responsible for providing technical support, promoting learning, KS culture and establishing policies to guide tacit knowledge sharing among lecturers. Top management has a positive impact on affiliation and trust as well as KS among lecturers in an academic environment (Lo, Tian & Ng, 2021).

2.3.3.1 Technological support

Top management in terms of the current study includes deans and directors. According to Hargitai, Pinzaru and Veres (2021:6), KS in universities depends on the direct support and involvement from top management. Top management can influence lecturers to share knowledge. In a remote teaching and learning institution, top

management firstly needs to provide adequate technical support for implementing a knowledge management system (KMS) that will make it easier and faster to share knowledge (Hecht, Maier, Seeber & Waldhart, 2011). The direct support and involvement from top management is significant for endorsing successful TKS in the university (Tan, 2015). However, the lack of IT skills and experience may be the basis for poor usage of KMSs in remote teaching and learning. Therefore, IT training will help lecturers to adapt to new IT systems and software that they will use to share knowledge (Afrianty, Artatanaya & Burgess, 2021). Muchaonyerwa (2015) recommends that library leadership should encourage staff to share knowledge through formal and informal networks at the workplace.

2.3.3.2 Organisational learning

Organisational learning is the process of creating and retaining knowledge within an organisation. According to Elnaga and Imran (2013:138), managers are involved in developing effective training programmes for employees to equip them with the desired knowledge, skills, and abilities of the employees. This means that it is the role of the management to equip lecturers with the necessary skills and experience. Nezafati, Razaghi, Moradi, Shokouhyar and Jarafi (2021:19) show that education and experience in the use of KMS positively affect knowledge sharing behaviour.

Lichtarski (2009:4) states that training courses are “fundamental tools for collecting information and for improving individuals’ knowledge, especially for those organisations which try to manage personalised knowledge”. When universities sustain and nurture lecturers, they will consider training as an investment in human resources. An university’s primary structure for learning opportunities should be largely interactive and involve its lecturers in a variety of action-oriented activities. The activities should be tailored to the individual requirements of the lecturers (Janus, 2016:15). Amua-Sekyi and Asare (2016) conducted a survey on ICT literacy among lecturers. The study found that lecturers have internet accessing skills, word processing skills, email sending skills, presentation skills; database searching skills, among other skills.

This means that, with appropriate training and education, new ICTs will assist the organisation to acquire, store, and share knowledge (Soto-Acosta & Cegarra-Navarro,

2016:7). Amua-Sekyi and Asare (2016) found that surfing the internet for information will make the lecturer's job effortless and encourage the establishment of connections with global education and word processing skills. Moreover, an ability to communicate through emails gives lecturers the capability to easily create and produce articles relevant to their teaching requirements. The study further revealed that ICT skills have an immense effect on the lecturers as they enable them to save time in creating or modifying materials used in teaching and creating documents that are more appealing to students, among other numerous benefits. This could be achieved by conducting training and workshops that focus on knowledge sharing activities, such as teaching and researching skills training, internal sharing of research work and the use of knowledge cafés. Academics will get more task skills through these workshops and training, which will boost their confidence in their ability to impart their knowledge. Additionally, by providing a forum for academics to share their expertise, these trainings or workshops will increase the likelihood that they will exhibit knowledge-sharing behaviours (Goh & Sandoh, 2013:46).

Top management is also responsible for developing a positive learning climate by promoting professional development (Hallinger, Hosseingholization, Hashemi & Kauhsari, 2018). For instance, this could be attained by developing a mastery climate where employees are given opportunities to explore their expertise without competing with their colleagues (Pereira & Mohiya, 2021). The management can also enforce positive learning by encouraging participation in decision making, training or allocating some lecturers to train others to achieve continued learning and putting knowledge into practice as well as breaking down organisational and personal barriers to KS (Saifi, Dillon & McQueen, 2016). Humans can apply their senses and experience in a decision-making process, and thus gain personal (tacit) knowledge. If companies can extract and exploit the tacit knowledge they have, it could improve their decision-making processes significantly (Viertola, 2020).

2.3.3.3 Organisational culture

Organisational culture is the collection of values and expectations. When it is left to the lecturers' discretion to share their knowledge, TKS may not take place among lecturers. Top management should promote an organisational culture that facilitates

TKS in the organisation (Durmusoglu, Jacobs, Nayir, Khilji & Wang, 2013:22). Ehijagbone and Olatokun (2020) studied TKS among lecturers in the University of Ibadan, Oyo State, Nigeria. The results showed that there is a KS culture, where lecturers interact, discuss and attend seminars to share their tacit knowledge. Culture can be considered as the most significant organisational factor affecting KS (Lee, Shiue & Chen, 2016). Farahian and Parhamnia (2021:126) state that “a positive organisational culture was found to exist among the ESP teachers”. A strict organisational structure and cultural attributes of the organisation affect the efficiency of KS (Wiewiora, Trigunaryah, Murphy & Coffey, 2013).

2.3.3.4 Organisational structure

The role of management is to cultivate an organisational structure that supports the sharing of tacit knowledge in the organisation. Mazorodze and Buckley (2019) studied KM in knowledge intensive organisation: understanding its benefits, process, infrastructure and barriers. The study found that 100% of the participants concurred that a flat organisational structure supports TKS.

2.3.3.5 Policy development

Top management have the authority to influence KS in organisations and can directly and indirectly impact TKS activities among lecturers (Zeinabadi, 2020). A KS policy for a university setting that will ensure and provide guidelines on how lecturers should share knowledge should be developed (Grunfelder & Hartner, 2013). Akosile and Olatokun (2020: 421) mentions that there should be a university policy on KS to serve as a reminder for academics to share their knowledge. Their findings also showed that a university policy influenced KS among lecturers. Such top management support should be anchored on knowledge strategy and policy. Top management is also responsible for the formulation of KM and KS policies to guide KM activities. This policy should guide and safeguard all activities related to KS (Dewah & Mutula, 2016). Top management support in the creation, sharing and use of knowledge was found critical in promoting KS within organisations (Maiga, 2017:2). It is the role of the management to ensure that there is a written policy in the organisation that is concise and in a simple language that addresses what the rule is rather than how to implement it. Accordingly, an effective policy is one that is able to address the problem in question (Peters, Capano, Howlett, Mukherjee, Chou & Ravinet 2018). Consequently, a policy should

clarify the roles and responsibilities of managers and personnel in sharing knowledge, identifying, capturing, and implementing best practices and lessons learned. Farahian and Parhamnia (2021:127) conducted interviews with heads of departments on how they contributed to the teachers' sharing of knowledge.

2.3.3.6 Rewards

Hamid, Mahmood and Khalaf (2021: 7) recommend that universities should provide proper support to skilled lecturers with reward programmes matching their efforts. Chen and Hsieh (2015) found that "altruistic motivation; such as public service motivation (PSM) play a pivotal role in knowledge sharing in public sector organizations". A qualitative research by Pereira and Mohiya (2021:376) revealed that the lack of reward and recognition led to knowledge hoarding. Hence, it is essential for the management to reward and recognise mentors for sharing knowledge (Zeinabadi, 2020). For instance, financial and non-financial rewards should be used to motivate employees to perform. Financial rewards include a salary raise, bonus and gifts whilst non-financial rewards include promotion, job security and recognition of employee's efforts (Chen & Cheng, 2012). Brčić and Mihelič (2015) investigated how selected individual factors (willingness, motivation, communication, collaboration) impact upon the sharing of one's own knowledge with co-workers. The study found that willingness and motivation are crucial in predicting the actual KS among employees. However, Amayah (2013:455) states that effective KS is challenging because employees cannot be compelled to do it.

2.3.4 BARRIERS TO TACIT KNOWLEDGE SHARING

Knowledge sharing is a crucial part of every organisation and its KM practices. However, studies have shown that employees give it little attention, while other studies concluded that employees do not know what tacit knowledge means (Susan, 2015: 116). Moreover, poor network infrastructure, restrictions on staff training, and a lack of ICT talent over the years were all caused by insufficient financing (Chaputula 2012; Mapulanga, 2014).

2.3.4.1 Knowledge hoarding

When employees do not attempt to share knowledge or are uninformed of the importance of KS, they hoard knowledge. Knowledge hoarding is an individual's deliberate and strategic concealment of knowledge (Evans, 2015:495). Holten,

Hancock, Persson, Hansen and Hogh (2016) aver that knowledge hoarding is a less intentional form of concealment. Lavanya (2012) studied antecedents of KS and found that “516 respondents showed not intrinsic motivation but attitude, trust, organisational knowledge ownership, culture, knowledge management initiative, absorptive capacity, and perceived time pressure, had the most considerable influence on the intention to share knowledge”. Holten et al. (2016) investigated knowledge hoarding antecedents. They found that knowledge hoarding is caused by negative acts mediated by trust and justice. In addition, Schaap (2018) concluded that an interpersonal and informational injustice of employees is positively correlated to distrust among employees. Mutage and Dewah (2021) examined knowledge hoarding at the State University Library in Zimbabwe and found that both junior and senior library staff hoard knowledge. Their reasons for withholding knowledge were “unfair treatment, fear of losing power and status, distrust and lack of KM policy. Furthermore, the vital findings revealed that “lack of recognition, rejection of knowledge contribution, criticism and poor grading systems were major factors that motivate knowledge hoarding behaviour in their juniors to balance social exchange” (Mutage & Dewah, 2021: 13). In addition, Gerbin and Drnovsek (2020) researched KS restrictions in Life Sciences, personal and context specific factors in academia. The results show that when competition is high, KS restrictions become higher as well. This shows that knowledge hoarding is sometimes intentional and unintentional. However, Connelly, Zweig, Webster and Trougakos (2012: 69) perceive knowledge hoarding behaviour as one of the factors that hinder KS, which occurs when an employee intentionally refuses to give knowledge when it is asked for. Tacit knowledge is seen as a personal asset for lecturers as well as a resource for teaching and learning. Consequently, staff views knowledge as power and because they lack motivation and compete with their colleagues, they tend to hoard knowledge (Karim & Majid, 2019). For instance, staff who are more focused on personal accomplishment instead of focusing on achieving organisational goals (Al-kurdi, El-haddadeh & Eldabi, 2018) will hoard their knowledge to save their time, from putting effort on tasks that will not benefit them (Labafi, 2017).

Findings by Olaniran (2017:49) show that many staff members in organisations had the tendency to personalise knowledge for competitive advantage. Therefore, there is a need for top management to encourage staff to form relationships that build trust and a sense of job security. Riege cited in Olaniran (2017:46) noted potential obstacles

for sharing tacit knowledge that include distrust, fear of losing power and poor leadership. For instance, in a study of 207 academic, economic and business schools from both private and public sectors in Croatia, it was revealed that scholars partially hide knowledge and are more inclined to conceal tacit knowledge from their colleagues (Olaniran, 2017). Moreover, the study shows that distrust among colleagues and personality traits are the main determining factors of knowledge hiding behaviour.

2.3.4.2 Perception of staff towards KS

In this study, perception refers to the way lecturers view and feel about sharing tacit knowledge. Perceived behavioural control was identified as the factor having the strongest influence on KS (Goh & Sandhu, 2013:45). Maiga (2017) revealed that lecturers had a positive perception towards KS. This means that there will be sharing of tacit knowledge among lecturers if they perceive KS positively, but if lecturers perceive KS negatively, knowledge will not be shared.

Maiga (2017) argues that perceiving “knowledge is power” instead of “knowledge sharing is power” may appear as a serious inhibitor of KS among academics in universities (Buckely, 2012). Moreover, it was noted that affective commitment, along with affect-based trust, attitude, subjective norms and perceived behavioural control, carried significant influence in predicting one’s intention to share knowledge among academics.

2.3.4.3 Insufficient management support

The role of management is critical in achieving organisational goals. Becoming a knowledge-sharing organisation demands the kind of leadership that promotes the necessary cultural shifts, offers helpful governance structures and funding, as well as external relationships (Janus, 2016). However, a research by McAdam, Moffett and Peng (2012:141) shows that the lack of leadership was displayed in inadequate incorporation of KS within teams. Nazim and Mukherjee (2013), in their study on ‘Librarians’ perceptions of knowledge management in developing countries: a case with Indian academic libraries’, found a paucity of policies on knowledge management enforcement; absence of incentives; limited top leadership support; and an absence of knowledge sharing culture. Dewah and Mutula (2016) found that limited commitment and support from top management, lack of incentives and rewards, hindered KS in public sector organisations. Akgün, Keskin, Ayar and Okunakol (2017)

studied KS barriers in software development teams in Turkey. The study found that “knowledge-sharing barriers could be remedied through the establishment of project leadership within a knowledge sharing culture and with a strong emphasis on monitoring the emotion of team members”. Top management is aware that they should engage with employees through social media and other digital channels (Duane & Corcoran, 2018). These activities include focusing on employee concerns, appreciating their contributions, and providing public acknowledgment for their efforts, especially pertaining to knowledge sharing. Apart from this, administrators of public universities should place heavier emphasis on developing academics’ confidence in participating in knowledge sharing activities (Goh & Sandoh, 2013:46).

2.3.4.4 Organisational structures

Organisational structure comprises layers of boxes that are influenced by the position and level of responsibility in the organisation. The structure of the organisation defines organisational culture and values (Suppiah & Sandhu, 2011). The organisational structure should facilitate knowledge sharing and allow for the management of tacit knowledge. Nonetheless, certain types of organisational structures are obstacles to the information flow and make sharing knowledge a challenge (Burton & Kortelainen, 2020). In a study by Fullwood, Rowley and Delbridge (2013), KS among academics in the United Kingdom universities was found to face physical and psychological barriers, most of which emanated from the university’s functional organisational structure, individualism, working in isolation, opposing ideologies and values of different departments or disciplines may appear as important barriers to KS.

2.3.4.5 Organisational culture

Organisational culture in the organisations sets out a platform for lecturers to trust each other and collaborate. Organisational culture has a significant impact on knowledge management processes in organisations (Zieba, 2017). However, a hierarchy culture hampers KS as it has several levels of position and working in inaccessible work units (Suppiah & Sandhu, 2011). Another culture hindering tacit KS is market culture, which emphasises on productivity and competitiveness (Zieba, 2017). Through KS, research universities are able to support their academic staff in sharing their knowledge, thus helping them in their research work by allowing them to

create new theories and ideas and establish new research principles (Afrianty, Artatanaya & Burgess, 2021).

2.3.4.5 Technology

Technology is a tool in a set of processes that governs the creation, sharing, and application of knowledge to achieve organisational goals. Covid-19 lockdown led to remote teaching and learning in universities. Therefore, technology is a barrier when lecturers lack training on technical support and IT support staff, which has a negative impact on lecturers' behaviour in sharing knowledge (Yesil & Hirklak, 2019). Tan's (2016) study found that universities did not have an ICT infrastructure that could promote knowledge management initiatives such as knowledge creation, access, share and usage of knowledge. Moreover, technology is viewed as a barrier to KS, if it is unfriendly to the user (Dewah & Mutula, 2014).

2.3.5 ROLE OF ICT AS ENABLER OF KNOWLEDGE SHARING

ICT has can facilitate remote teaching and learning; in fact, it is the key tool for universities to share knowledge (Martin & Gonzalez, 2017). Online data storage, collaborative networks, systems of interconnected computer networks, restricted private communications network, groupware, a conference with participants at different sites, e-learning, online group discussions, online chat, and e-mail are examples of ICTs tools that enable knowledge management-related activities (Tan, 2016). Sharing tacit knowledge using ICT tools may only be effective when the knowledge is exchanged in a dialogue. Furthermore, social media can be used to share both tacit and explicit knowledge, online forums and chat rooms facilitate TKS (Castaneda & Toulson, 2021).

2.3.5.1 ICT enable knowledge sharing and knowledge management

Knowledge sharing is one of the most imperative parts of knowledge management (Srinivas, 2016). Oktari, Munadi, Idroes and Sofyan (2020:2) state that KM means gaining the correct knowledge at the appropriate time and place. It aims to facilitate the process of creating, sharing and making use of knowledge. For universities to implement efficient KM and enable KS, they need ICT tools in place. In Takeuchi (1995), the management of knowledge, for instance, of tacit-to-tacit knowledge situations requires "face to face meetings and shared experiences; groupware-application software, applications that support real-time online meetings, such as

video and text-based conferencing and chat; community of practice software; the tacit knowledge systems, knowledge mail product” (Davidavičienė & Raudeliūnienė, 2010:825). ICT tools in KM are used for various reasons, including knowledge retrieval, knowledge storage and KS. ICT is an enabler of TKS and it can assist in capturing, sharing and applying tacit knowledge (Chugh, 2017). A relevant KMS with abilities to identify, capture and share tacit knowledge is a mediator for KS among lecturers (Tan, 2015).

2.3.5.1 Interaction

Remote teaching and learning provided a place for ICT in the knowledge base of lecturers and ICT empowered interactive and collaborative teaching and learning (Rahman, 2014). Technology facilitates TKS, allows individuals to share their personal thoughts, ideas and perspectives about work-related issues and in effect, enable people to arrive at new interpretations and ideas that are used for innovation (Panahi, Watson & Partridge, 2012). For instance, in the context of this study, ICT tools such as Teams, WhatsApp, Emails, Google meet and Zoom are used to share tacit knowledge amongst lecturers. The use of audios and video allows lecturers to share tacit knowledge. These ICT tools have been successful in enhancing human capabilities (Msoffe & Lwoga, 2020). Castaneda and Toulson (2021:679) found that ICT tools, such as text messaging and video conferencing, could allow participants to share tacit knowledge. Similarly, social media allow instant interaction; therefore, lecturers should be encouraged to use social media to share their tacit knowledge in universities. Ou, Leung and Davison (2011:144) affirm that a well-connected social network can produce an organisation’s collective knowledge and improve its capability to act on what people know at the time. According to Yonah and Ziemba (2020:2), the use of social media at academic conferences can promote an atmosphere of excitement by amplifying and communicating content to people who were unable to attend and further providing them with a platform for a continuous discussion of ideas presented at the meeting. The usage of social media contributed to building personal relationships because individuals could share their knowledge from anywhere without physical contact (Akosile & Olatokun, 2020:416). The main motive behind lecturers using ICT in remote teaching and learning was to make sure that every individual has access to significant knowledge, to support a conducive culture, to create new

knowledge and to share their knowledge across all borders (Kauppila, Rajala & Jyrama, 2011).

Vuori and Okkonen (2012) investigated factors motivating and impeding employees to share knowledge through an intra-organisational social media platform and found social media to be beneficial to both the individual and the organisation where knowledge was being shared. Mahlangu (2014) explored the role of social media and knowledge transfer in mentorship. The results revealed that social media capabilities such as networking, learning, data sharing and peer to peer communication capabilities benefit e-mentoring in that it reaches an audience worldwide and it is educational. Buun's (2020:182) findings confirmed that social media technologies increase tacit knowledge visibility. In addition, it is a norm for any organisation to use the intranet to share knowledge internally among the staff. Moreover, Haque, Ahlam and Razi (2015:18205) aver that interaction (communication) has become easier through emails, WhatsApp and the intranet. Therefore, an email is utilised by staff to share their ideas during the knowledge externalisation process and thus new knowledge is created (Shu, Pang & Chen, 2020). Knowledge will be shared among staff who are involved in the email trail (Wedgeworth, 2008). WhatsApp is now used as an educational tool, where lecturers use its functional benefits to improve academic performance (Igbafe & Anyanwu, 2018: 182). WhatsApp is a mobile instant messaging platform which can be accessed on smartphones and computers. Creating WhatsApp groups for KS among staff in organisations has become the norm (Adomi & Uwakwe 2019).

Panahi et al. (2013) argue that social media can facilitate the sharing of tacit knowledge. Jalonen (2014) argues that social media can help employees to become involved in informal discussions within their organisation. Furthermore, a quantitative study by Khoro (2019:66) revealed that the intranet is the most commonly used ICT platform in organisations. Sangam (2015) states that "intranet is a corporate Local Area Network (LAN) or Wide Area Network (WAN) that is protected behind a company's firewalls and it uses Internet technologies. This can be accessed by internal staff with the passwords and access codes they were given". Colladon, Saint-Charles and Mongeau (2020:10) add that the intranet social network is created by the company to support communication and KS among geographically dispersed individuals. The

intranet is user friendly for KS activities because knowledge can be easily accessible and this should encourage the management to update it regularly. Averweg (2012:5) recommend that organisations should not only prioritise intranets for information sharing, but also for sharing knowledge, which will result in professional growth and an increase in work performance.

2.3.5.2 Knowledge creation

Lopez-Nicolas and Soto-Acosta (2010) found that ICT tools such as Zoom and Google meet enable online real time meetings and chat, which can influence all knowledge creation processes identified in the SECI Model. Their study shows that IT can affect the socialisation of knowledge by facilitating interactions among individuals; externalisation process by developing community based electronic discussions and chat rooms; combination process by supporting sorting, adding, combining, and categorising existing information; and finally, the internalisation process by facilitating informal conversations and discussions, and making the information more available. ICTs facilitate collaboration between people and teams that are geographically dispersed. ICTs also facilitate KM activities through the codification of knowledge as well as rich and interactive forms of communication through the internet (Baloh, Desouza & Paquette 2011).

2.3.5.3 Knowledge Storage

Knowledge can be stored electronically, in electronic repositories, or manually in books, manuals, documents, reports; minutes from meetings, policies and plans (Shongwe, 2016:146). Knowledge storage involves activities aimed at maintaining and managing knowledge continuously in organisational repositories and knowledge databases (Izo, 2020). Al-Qdah and Salim (2013:1192) studied a conceptual framework for managing tacit knowledge from an ICT perspective. The study concluded that tacit knowledge could be captured, stored, and transferred by using a special type of technology. This enhances the sharing and management of tacit knowledge in an organisation.

2.4 Summary

This chapter provided a literature review on TKS. The study reviewed literature based on the study's objectives, namely; the importance of TKS at UL, the strategies used to share tacit knowledge at UL, the role of management support toward TKS at UL, barriers of TKS among lecturers at UL and lastly, the role of ICT as an enabler to TKS

at UL. The two theoretical frameworks guiding this study were the SECI Model and the Knowledge Enterprise Model. The chapter showed how the SECI Model and Knowledge Enterprise Model are appropriate for this study by explaining how these two theories can be applied in an organisation such as UL to facilitate TKS. The next chapter discusses the research methodology of this study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The previous chapter provided a literature review of the study. This chapter discusses the research methodology, which includes the research approach and design used in the study. Remenyi and Williams (1995) in Ibrahim (2017:114) define research methodology as a procedural framework within which research is conducted and thus provides guidelines on how research should be conducted. Awan and Hussain (2019:299) confirms research methodology as a science to conduct research, a procedure that researchers follow to carry out their work, including description, explanation and estimation. In the context of multiple studies on the same topic, the quality and strength of the findings may differ depending on the research methodology used. This indicates that the quality of research results depends greatly on the research methodology employed in the study (Ngulube, 2005; Fielden, 2008). Ugwuwo (2016:5) says that one of the advantages of employing a research methodology is that it yields an enrichment of the research process and provision of chance for in-depth study and understanding of the subject.

3.2 Research paradigm

A research paradigm is essential in a study as it forms the philosophical basis of research study. Johnson and Christensen (2012:31) emphasise that a research paradigm is simply a perspective about research held by a community of researchers that is based on a set of shared assumptions, concepts, values and practices. The word 'paradigm' was first introduced by John Kuhn, who described it as "an essential collection of beliefs shared by scientists, a set of agreements about how problems are to be understood" (Kuhn, 1962:186). Research paradigms are characterised by ontology, epistemology, axiology and methodology (Brink, Walt & Van Rensburg, 2012:24).

Creswell and Poth (2018:20) refer to ontology as "nature of reality and epistemology as the theory of knowledge and how knowledge claims are justified". Axiology refers to the ethical issues that need to be considered when planning a research proposal (Kivunja & Kuyini, 2017: 27). Methodology is a broad term encompassing research design, methods, approaches used and procedures followed in a study (Keeves, 1997). Creswell and Poth (2018:21) support that, methodology involves strategies that

researchers use to investigate the research problem. Therefore, methodology is the process a study follows to investigate a phenomenon. The methodology chosen to underpin a research problem depends on the three major paradigms commonly used in social sciences research, namely; positivism, interpretivism and post positivism.

3.2.1.1 Positivism paradigm

Positivism is an epistemological guideline that postulates that physical and social reality is independent of those who observe the reality (Gall, Gall & Borg, 2007:16). According to Comte (1856), positivism is “experimentation, observation, and reason based on experience to be the basis for understanding human behaviour and therefore the only legitimate means of extending knowledge and human understanding”. The positivist paradigm generates objective knowledge that is ‘out there’ and considers human behaviour as passive, regulated and influenced by its surroundings (Ngulube, 2015). The study explored the details about positivism to put the research approaches used in context. However, the study did not employ this paradigm to accomplish its objectives.

3.2.1.2 Interpretivism paradigm

The shortcomings of positivism led to the emergence of interpretivism (Uduma & Sylva, 2015:49). The interpretive paradigm seeks to expose understandings of human behaviour, actions and attitudes that the researcher needs to understand to maximise the potential of the research approach (Mayoh & Onwuegbuzie, 2015). Interpretivism endeavours to comprehend the world from the perspective of its participants and it is supported by the interpretative effort of the researcher (Bonache & Festing, 2020: 104). The study adopted the interpretivist paradigm because it allowed the researcher to explore multiple views that characterise knowledge creation.

3.2.1.3 Post positivism

The post positivist paradigm combines both positivist and interpretive paradigms; it accepts that all discoveries require the researcher to demonstrate objectivity during each discovery process (Pickard, 2013). Maree (2017:56) states that post-positivism derived from positivism which refers to the approach of natural science and is applied within natural science. Post-positivism (or postmodernism) ascended from disapprobation with the strict nature of positivism. Post-positivism considers reality “as probabilistic, not certain and that one can make logical inferences about a reality by

considering scientific observations with philosophical reasoning” (Bhattacharjee, 2012:18). Post-positivist suggests that social reality can be discovered by identifying and assessing the factors that affect results that are found in experimentations (Chipeta, 2018).

3.2.1.4 Pragmatic paradigm

The pragmatic paradigm was considered appropriate for the study as it accorded the researcher a platform to examine and evaluate object realism that exists in the universe. Johnson and Christensen (2014:80) state that pragmatism is “a philosophical stance that subscribes to a belief that what is ultimately important and justified or “valid” is what works in particular situations in practice and what promotes social justice. The pragmatic worldview emerges out of deeds, circumstances, and outcomes instead of anticipated circumstances as is the case in scientific methods (Creswell, 2014).

3.3 Research approach

Research approaches are strategies and procedures used in a research study (Creswell & Creswell, 2018:3). There are three basic research approaches, namely; quantitative, qualitative, and mixed methods (Creswell & Creswell, 2018:3; Creswell, 2014:3; Leedy & Ormrod, 2013:90-98; Leedy & Ormrod, 2020:28-29).

3.3.1 Quantitative approach

Tracy and Schutt (2012:4) define quantitative approach as “research method that uses measurement and statistics to transform empirical data into numbers and to develop mathematical models that quantify behaviour”. According to Pietkiewics and Smith (2014:7), “quantitative studies are more preoccupied with counting occurrences, volumes to carry out statistical analysis”. The researcher adopted a quantitative approach because the researcher sought to explore the situation and KS based on numerical data such as the frequency of participants who defended or did not defend certain items or statements and analyse the results (Fidel, 2008). The quantitative approach was used to collect quantitative data to assess TKS behaviours among lecturers at the University of Limpopo, for the researcher to go deep into the barriers of TKS among lecturers, the role of management, the role of ICT in sharing tacit knowledge and learning as well as strategies used to share tacit knowledge in remote teaching and learning.

3.3.2 Qualitative approach

Creswell (2014:4) says the qualitative approach is used in exploring and understanding the meaning individuals attribute to a human problem. Qualitative research is a method used to see the sights and understand the importance that an individual, or groups ascribe to a social or human issue (Stephen, 2016). Vanderstoep and Johnston (2009:166) state that in a qualitative study, knowledge is not “out there”, knowledge is constructed through communication and interaction within the perceptions and interpretations of people. Sutton and Zubin (2015:226) aver that “qualitative research can help researchers to access the thoughts and feelings of research participants, which can enable development of an understanding of the meaning that people ascribe to their experiences”. Therefore, the qualitative approach was employed to investigate the practices and experiences of lecturers concerning TKS.

3.2.4 Mixed research method

A mixed research method is defined as “a research methodology that focuses on collecting, analysing and mixing both quantitative and qualitative data collection methods in a single series of studies” (Creswell & Plano-Clark, 2011:5). In a mixed methods research, the researcher builds knowledge about real-world issues based on practicality, which places more emphasis on finding answers to research questions than the methods used (Maree, 2016). “Its dominant foundation and principle is based on the fact that the combination of quantitative and qualitative approaches in a single study unleashes a better understanding of research problems than a single research approach” (Azorin & Cameron, 2010). A mixed method research is applicable in this study as the study used both quantitative and qualitative data collection tools to gather data from respondents.

3.2.5 Justification of research methodology

This study used mixed method research to solicit information about the nature and strategies of sharing tacit knowledge among lecturers and discover the role of management towards KS or KM programmes at UL. A combination of both qualitative and quantitative research methods afforded the study the possibilities of addressing problems from a large number of perspectives, which in turn enriched and enhanced the research findings (Ngulube, Mokwatlo & Ndwandwe, 2009). Mixed-methods research is more expensive in terms of time, money, and energy than a single method

approach; however, it improves the validity and reliability of the resulting data and strengthens causal inferences by allowing for data convergence or divergence in hypothesis testing (Abowitz & Toole, 2010). Quantitative and qualitative research approaches were used for different purposes in the study. The quantitative research approach was used to measure the frequencies and practices TKS at UL whereas the qualitative research approach was utilised to establish the nature and manner of TKS.

3.4 Research design

Akhtar (2016:14) defines research design as a “strategy, arrangement and plan and examination intended so as to attain guaranteed to search problem and regulator alteration”. Grey (2014) confirms that it sets out the procedure on the required data, the method to be applied to collect and analyse data. There are different types of research designs, as discussed below.

3.4.1 Descriptive research design

Descriptive research is a process of collecting, scrutinising, arranging, and presenting data in tables, charts, and graphs about underlying conditions, practices, beliefs and processes and then making accurate interpretations about the data collected and with a statistical method (Rillo & Alieto, 2019).

3.4.2 Exploratory research design

According to Akhtar (2016:73), the exploratory research design is the primary stage of research and its purpose is to provide new insights into a phenomenon. It looks for causes and reasons and provides evidence to support or refute an explanation or prediction. It is conducted to discover and report some relationships among different aspects of the phenomenon under study. It builds on descriptive research and goes on to identify actual reasons why a phenomenon occurs (Boru, 2018).

3.4.3 Explanatory research design

Explanatory studies seek to ask ‘why’ and ‘how’ questions (Grey, 2014). On the other hand, descriptive research is used to obtain information concerning the current status of the phenomena and to describe ‘what exists’ with respect to variables or conditions in a situation (Anastas, 1999; McNabb, 2008). The researcher adopted the descriptive design to describe the frequencies of sharing tacit knowledge among lecturers at UL.

3.4.4 Justification of research design

Siedlecki (2020:8) avers that the purpose of descriptive research design is to describe individuals, events and conditions by studying them as they are in nature. In line with the purpose of the descriptive design, the researcher collected data from lecturers, arranged them according to the objectives of the study, presented the data in tables and figures and also interpreted them in a descriptive manner. Descriptive research designs helped the researcher to provide answers to the questions of who, what, when, where, and how associated with a particular research problem; a descriptive study cannot conclusively ascertain answers to why.

3.5 Population of the study

Population is a collective term for people or objects that are the focus of the research's questions (Walliman, 2018). The population of this study were all UL lecturers, Deans of Faculties and School Directors. In this regard, lecturers refer to all academic positions at all levels, which include junior, senior lecturers, and professors. Lecturers were relevant because they are knowledge workers who rely on knowledge on a daily basis for teaching and conducting research. Deans of Faculties and School Directors were relevant to this study because they play managerial roles, which are a critical factor in TKS. The total number of lecturers at UL is 709 and the total number of top management population is 17 (UL HR Information System, 2021).

3.6 Sampling

Sampling is a procedure of choosing elements (people, institutions) from a population of focus (William, 2020). When it is not feasible to investigate the entire population, a sample is usually established (Ledwaba, 2016). Generally speaking, there are two basic groups of testing out the processes, especially the probability and non-probability sampling. There are two types of sampling techniques used in research: probability sampling and non-probability sampling (Leedy & Ormrod 2020:200). With probability sampling, all intended study subjects have an equal chance of being included in the sample size (Leedy & Ormrod, 2020:200; Patten & Newhart, 2018:90). In contrast, the nonprobability sampling technique involves an uncertain and uneven chance that the intended research participants will be included in the sample size (Patten & Newhart, 2018:100).

The University of Limpopo stipulated that research projects like this must be completed within a period of two years. Therefore, it would have been time-consuming and not feasible to engage with all the lecturers (Walliman, 2006). According to Leedy and Omrod (2010:184), “if a population size is around 500, 50% of the entire population should be sampled, if a population size is around 1500, 20% of the entire population should be sampled”. The researcher sampled the population using a probability sampling technique called stratified random sampling. Stratified random sampling involved segregating a total population of a study into similar groups called strata (Taherdoost, 2016:21). In this regard, the researcher divided or sampled the population according to 4 faculties (UL website, (2021), namely; Faculty of Health Sciences, Humanities, Science and Agriculture, and Management and Law. The number of the sample was guided by the representation of each category out of a total of 709 lecturers employed at UL (UL HR Information System, 2021).

The sample size is essential for data analysis and the reliability of the study, where a sample size has a variant category and a minimum sample size should represent each category (du-Plooy-Cilliers, Davis & Bezuidenhout, 2018). The researcher applied mathematical calculation (see below, Table 1) to arrive at the sample size for the entire population. Alreck and Settle (cited in Ankrah, 2014) suggest that “a sample ratio of 30% is adequate for a population smaller than 1000; a sampling ratio of 20% is adequate for a population between 1000 and 10,000, and a sampling ratio of 10% is adequate for a population greater than 10,000”. In consideration of this, the researcher selected 30% of the entire population since the total was 709, which was smaller than 1000.

Table 3.6.3.1: Equation of sampling (Alreck & Settle in Ankrah, 2014):

$$\text{The sample size of lecturers} = \frac{30}{100} \times 709 = 212,7 = 213.$$

Therefore, the sample size for the study was 213.

A proportionate sample size was used as a baseline to select samples from UL’s four faculties. Thus; P.S = Proportionate Sample for each faculty.

$$P.S = \frac{\text{total number of lecturers}}{\text{Total number lecturers of all the faculties}} \times 213.$$

$$\text{Faculty of Health Sciences, } P.S = \frac{139}{709} \times 213 = 42.$$

$$\text{Faculty of Humanities, } P.S = \frac{197}{709} \times 213 = 59.$$

Faculty of Science and Agriculture, $P.S = \frac{257}{709} \times 213 = 77$.

Faculty of Management and Law, $P.S = \frac{116}{709} \times 213 = 35$.

To sum up: Proportionate sample size = 213.

Therefore, given the formula above, a proportionate sample size of 30% (213) was chosen from the total population (see Table 1 for the sampling proportion). Straits and Singleton (2010:183) indicate that one of the strong points of the proportionate sample is its ability to provide the representativeness of a fragment of the population. Therefore, the researcher selected participants randomly from each strata in a number proportional to the strata's size when compared to the population. The samples were summed to form the total sample after determining each strata. Overall, a total of 213 established the study population.

Table: 3.1 Population and proportionate sample size Faculties	Population	Proportionate Size
Faculty of Health Sciences	139	42
Faculty of Humanities	197	59
Faculty of Science and Agriculture	257	77
Faculty of Management and Law	116	35
Grand Total	709	213

Furthermore, the researcher used the purposive sampling method, referred to as total population sampling, to select all 17 academic management i.e. Faculty Deans and School Directors. According to Etikan, Musa and Alkassim (2016:3), "total population sampling is defined as a type of sampling where the total population of interest is studied". Total population sampling was used based on the total number of 4 deans and 13 directors (UL HR Information System, 2021), a number which was relatively small and manageable to be included in a study. Scholars such as Adwork (2015:96); Leedy and Omrod (2005:145) assert that "there is no point in sampling a population less than 100". To conduct purposive sampling, the researcher used her knowledge

gained over five years as a student at UL to select all 17 Faculty Deans and School Directors.

3.7 Data collection

Data collection methods are the set of procedures used to collect data on the researcher's subject of interest (De Vos, 2014:114). Bertram and Christiansen (2015:71) state that data collection method is "a process of gathering and measuring information on variables of interest, in an established systematic manner that gives answers to research questions, evaluate the outcomes and test hypotheses". Moreover, Burns and Grove (2005:572) say data collection is "a systematic method which is applied by the researcher to collect relevant information for the study in order to achieve the aim or goal of the study". This research used primary data, which are the data "collected afresh and for the first time, and thus happen to be original in character" (Kothari, 2004:95). The data collection tools are explained below.

3.7.1 Data collection tools

There are various data collection methods, such as observation, questionnaires, interviews, and document analysis (Kawulich, 2005). Babbie (2012:267) and Neuman (2014:195) mentioned questionnaires, observations, interviews, and records for content analysis as the major data collection methods used when gathering data during research. In this study, questionnaire and interviews were used.

3.7.1.1 Questionnaire

A questionnaire is a data collection instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents (Karim, 2013). According to Roop and Rani (2012:273), "questionnaire can be quite inexpensive to design and administer and time is an important resource which a questionnaire consumes to its maximum extent". Specifically, a structured questionnaire was chosen in the study to ensure that every respondent who participated received the same questionnaire (Khoru, 2019). The questionnaire was accompanied by a cover letter (see Appendix A), which De Vos, Strydom, Fouche and Delport (2011) regard as an integral part of the questionnaire.

3.7.1. 2 Interviews

An interview is an organised and purposeful dialogue between the researcher and the respondent (Bertram & Christiansen, 2014). The researcher used questionnaires in the qualitative research approach. The study was supposed to interview respondents face to face to gather data from management; however, due to Covid-19 regulations, the researcher sent the interview questions via email. The questions remained open-ended for the collection of qualitative data. Some member of UL management that were interviewed were Faculty Deans and School Directors. With regard to open-ended inquiries, the respondent is required to offer their own response (Babbie & Mouton, 2001:233). The best and most unexpected answers came from open-ended questions because they gave respondents the freedom to express themselves and use words of their own choosing.

3.7.1.2 Questionnaire layout and design

A questionnaire should be organised and presentable; so, the researcher created a visually appealing technical questionnaire with enough space between the boxes to entice the respondents to fill it out (Babbie, 2010). The researcher avoided asking ambiguous questions. The questionnaire had guidelines and each question was followed by the instruction on how to answer it. The questionnaire was used to collect data from the respondents, comprised closed-ended and open-ended questions. Through closed-ended questions, “the respondent was asked to select an answer from among a list provided by the researcher” (Babbie & Mouton, 2001:233). The questionnaire consisted of “scaled questions and statements were followed by a rating scale (Likert scale) in which the respondent indicated the degree to which they agreed or disagreed with the item” (Terre Blanche & Durrheim, 1999:296). The study used a Likert scale rating scale such as agree and disagree. In this regard, the researcher used a self-administered questionnaire to collect data.

3.7.2 Self-administered questionnaire

Self-administered questionnaires (SAQs) are forms that are intended to be filled out by respondents on their own, without the assistance of the researchers gathering the data (such as an interviewer) (Lavrakas, 2011). The researcher employed self-administered questionnaires to gather data from the respondents. Since the respondents completed SAQs on their own without receiving regular feedback from

trained interviewers, extra care was taken in how the questions were phrased and how the questionnaire was formatted to prevent measurement error. Originally, the researcher emailed the respondents, but SAQs are now widely used for Web surveys (Lavrakas, 2011). The researcher used self-administered questionnaires to collect data from both lecturers and Deans of Faculties. The questionnaire was constructed by the researcher based on the literature review, objectives and the theory of the study. Due to Covid-19 regulations, questionnaires were distributed to participants via Google Form.

Google Form enabled the researcher to easily distribute the questionnaire to all staff members. Respondents were able to access the questionnaire from any computer with an internet connection and a full-featured web browser which also maximised response rate. The self-administered questionnaires were inexpensive for the researcher to gather data, and the participants answered questions by themselves. The respondents remained anonymous, the researcher was not present when they completed the questionnaires, which probably made more comfortable to provide socially undesirable answers. It was possible that some respondents could leave some questions unanswered and that errors could occur when the respondents answered the questionnaires unattended by the researcher (de Jong, 2016).

3.8 Data analysis

Mertler and Henriksen (2018:38) avers that data analysis is “an interactive process of manipulating and interpreting numbers to extract meaning from them, to answer objectives, or to explore meanings that can be derived inductively from the data”. Data analysis involved statistics of organising and interpreting numerical information (Khoru, 2019: 38). For the quantitative data collected from the respondents, the researcher used a computer program to analyse the numerical findings collected from questionnaires (Jupp & Jupp, 2012: 38). For data management and analysis, various computer programs were available, including the Statistical Package for the Social Sciences (SPSS) and Excel. To analyse quantitative data, the researcher used SPSS. Tables, bar graphs, and pie charts were used to present the findings.

For qualitative data collected from open-ended questions, the thematic analysis technique was used. Thematic analysis is a method of systematically determining,

sorting out, and presenting the meaning of patterns (themes) with data. The steps the researcher followed in thematic analysis adopted from Braun and Clarke (2012) were:

- Familiarisation, which is the initial step in which the researcher familiarises herself or himself with the data by reading and making notes of textual data from open-ended questions in the analysis process.
- Generating initial codes, where the researcher generated codes that will try to make meaning of what was said in textual data.
- Searching themes after generating codes and constructing themes.
- Reviewing potential themes, where the researcher checked if themes would be used for the categorisation of the data by rereading the data to discover if the themes captured the meaning of the raw data.
- Defining and naming themes, where the researcher defined themes by stating the differences and specifics of each theme.
- Producing the report was the final step which entailed writing the analysis of the data collated. The researcher wrote the final report and produced a report as a thesis.

3.9 Pilot study

Doody and Doody (2015:1076) explain that a “pilot study is often performed to test the feasibility of techniques, methods, questionnaires, and interviews and how they function together in a particular context, and it can also reveal ethical and practical issues that could hamper the main study”. The main goal of a pilot study is not to provide answers to specific research questions, rather it is to deter researchers from beginning a large-scale investigation before they are sufficiently familiar with the suggested methodologies (Polit & Beck, 2017). The researcher pre-tested the questionnaire on a small size population of 5 lecturers to confirm the validity and reliability of the questionnaire. The feedback from the participants helped the researcher to improve the structure of the questions and wording. The format for clustered questions was changed to a multiple choice grid and duplicated questions were deleted. For instance, question 10 “which strategies do you use to share knowledge? You may select multiple answers”, required multiple answers, although it

was indicated in the pre-tested questionnaire that the Google Form (questionnaire) allowed the respondents to select one answer. Nevertheless, the researcher changed the question format type from multiple choice to checkbox. The questions were asked in a language that could be understood by any of the participants (Saunders & Lewis, 2012).

3.10 QUALITY CRITERIA

The quality criteria assisted the researcher to ensure that the measurement tools were appropriate for the study's subject and problem. Creswell (2016:252) refers to quality criteria as "internal quality standards used as procedures during data collection analysis, and external quality standards serving as strategies ensuring the quality of research". The quantitative criteria considered were objectivity, validity, and reliability and qualitative quality criteria included credibility, transferability, dependability and confirmability:

3.10.1 Objectivity

Frambach van der Vleuten and Durning (2013:552) refer to objectivity as "the extent to which personal biases are removed and value free information is gathered". Objectivity emphasises on the provision of accurate, reliable, and non-discriminating information (Percival & Schroeder, 2017). To ensure objectivity, the researcher represented the data collected without personal prejudice and bias.

3.10. Reliability and Validity

3.10.2.1 Validity

Validity explains how well the collected data cover the actual area of investigation (Ghuri & Gronhaug, 2005). According to Brynard, Hanekom and Brynard (2014: 50), "validity refers to the potential of a design or an instrument to achieve or measure what it is supposed to achieve or measure". Mohajan (2017:14) contends that "validity is all about measuring what one intends to measure and manage to eliminate any other possible causal relationships". Thus, face validity, content validity; concurrent validity and construct validity measures were taken into consideration in the study:

3.10.2.2 Face validity

Face validity is how data collection tools appear to the participants (Brynard, Hanekom & Brynard, 2014). Taherdoost (2016: 29) points out that face validity "evaluates the

appearance of the questionnaire in terms of feasibility, readability, consistency of style and formatting, and the clarity of the language used". The researcher designed a questionnaire in such a way that the participants perceived as pleasant and only composed questions relevant to the study.

3.10.2.3 Content validity

Brynard, Hanekom and Brynard (2014:50) asserts that, "content validity is the correctness and appropriateness of the questions included in a questionnaire". This means that each question is relevant to the objectives of the study. The researcher, together with the supervisor and external expert in the field, closely examined the questions on the data collection instruments to ensure that they measured the desired variables. The correctness, relevance and eloquence of the questions were tested through a pilot study that involved distributing a pilot questionnaire to the lecturers. This helped the researcher to determine whether or not the questions included were relevant to the research problem.

3.10.2.4 Construct validity

Brynard, Hanekom and Brynard (2014: 50) define construct validity "as the degree to which an instrument uncovers the information which it was designed to uncover". To ensure construct validity, the researcher designed a questionnaire that largely entailed closed-ended questions. The researcher standardised the data collection instruments which were compared and contrasted with the existing literature review. The validity of the study depends on the accuracy of the questionnaire (Mohajan, 2017).

3.10.3 Reliability

Koonin (2014: 254) avers that reliability refers "to whether the same results will be produced if a different researcher repeats the same study on the same population at a different time using the same instrument or method". In this case, a similar measurement technique or an instrument is given to the same participants to test its reliability. Kubai (2019:3) asserts that "it is basically the repeatability or replication of research findings. When a study is conducted by a researcher under some conditions and then the same study is done again for the second time and yields the same results then the data is said to be reliable". Thus, the researcher pre-tested the questionnaire on a small size population of 5 lecturers who did not form part of the study. A statistical comparison was made between participants' test scores for each of the times they

completed it. Relevant questions were asked since the data gathered from the respondents were factual and relevant to the answers the researcher intended to acquire.

3.10.4 Confirmability

Confirmability is undertaken to maintain the true findings of the study. Maree (2017:125) “says confirmability is the extent to which biases participants are not influenced by any other consideration”. The current study ensured confirmability by gathering information that was consistent with the research objectives. Confirmability is a term used to describe how the researcher shows how the conclusions and findings are connected in a way that is understandable and even possible to repeat (Moon, Brewer, Januchowski-Hartley, Adams & Blackman, 2016). An external examiner studied and reviewed the research documents. This was done to ensure that the study elements were properly handled as per the guidelines provided by the UL.

3.10.5 Credibility

Creswell and Poth (2018:258) refer to credibility as an accurate interpretation of the participants’ meaning. Credibility, which in quantitative research is similar to validity, refers to the accuracy of the study findings and the degree of trust that can be placed in them (Leedy & Ormrod, 2016:313). By using credibility measures, such as peer review and numerous debriefing meetings with the supervisors, the researcher established the rigour of the investigation.

3.10.6 Transferability

Transferability, according to Bhattacharjee (2012:111), is “the extent to which the findings in one study can be generalised to other situations”. Transferability was achieved by choosing an acceptable sample for this study since the findings may be applied to universities in South Africa. To make the study transferrable and add to the body of knowledge, the researcher included all relevant paperwork, such as research document reports (Marre, 2017).

3.11 ETHICAL CONSIDERATIONS

3.11.1 Permission to conduct the study

Before any data are collected for research in an organisation, permission for such research should be sought (Alemu, 2010:119). After the research proposal was

approved by the Faculty of Humanities Higher Degrees Committee, the researcher requested an ethical clearance certificate from the Turfloop Research Ethics Committee (TREC). The certificate of ethical clearance was issued (see Appendix A) and then the researcher used the ethical clearance certificate and requested permission from the Office of the Registrar to conduct research at UL (see Appendix B).

3.11.2 Informed consent and voluntary participation

According to Furseth and Everett (2013:10), it is important to inform the participants about the study before data collection. Since the questionnaire was distributed via Google Docs, the questionnaire was preceded by a covering letter informing the participants about the intent of the research. After being informed about the purpose of the study, the respondents had the option to select a Yes/No to give consent to partake in the study or not.

3.11.3 Anonymity and confidentiality

The identity of the participants must be kept anonymous and confidential (Fleming & Zegwaard, 2018). Thus, the researcher did not ask the respondents to write their names or employee numbers on the questionnaires. To maintain confidentiality, raw data were disclosed to authorised people only, namely; the researcher, supervisor, and statistician (Vallabhaneni, 2017). The researcher did not disclose the raw data from questionnaires for any reason other than research.

3.11.4 Respect and risk of harm

In research, harm can range from loss of time, emotional hurt, and reputation defamation, among others. Therefore, the researcher should eliminate and minimise potential risks during the study (Fleming & Zegwaard, 2018). In this regard, the researcher did not ask upsetting or derogatory questions as a way of showing respect to the participants and protecting them from psychological harm.

3.11.5 Integrity and plagiarism

Integrity is an active adherence to ethical principles and professional standards essential for responsible practice of research (Carling, 2019). To ensure integrity, the researcher presented raw data collected as they were, without fabrication. Plagiarism is as an act of presenting someone else's previously published work as one's own work (Brynard et al., 2014). To avoid plagiarism, the researcher acknowledged

sources through in-text referencing and listing all the sources consulted in the bibliography section of this study. Furthermore, a plagiarism software detector called Turnitin was used to determine if the similarity index is not above 15% as stipulated by the UL plagiarism policy.

3.12 Summary

In this chapter, the study discussed research methodology, the study's research design, population, sampling, data collection, methods and data analysis. Moreover, this chapter covered quality criteria and ethical considerations. The next chapter presents the data, their analysis and interpretation.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The previous chapter discussed the research methodology that was used to undertake this study. This chapter covers the analysis of the data collected from lecturers and management (Deans and School Directors). The data were collected using mainly closed-ended questions, which were supplemented by closed-ended questions. The questionnaires were distributed through emails to the respondents as links (Google Form questionnaire). Statistical Package for the Social Sciences (SPSS) was used to analyse the data. The presentation of data and data analysis yielding the meaning and understanding of the raw data, meaning the research problem can be studied and conclusions can be drawn from data analysis (De Vos, Strydom, Fouche & Delpont, 2011).

4.2 Response rate

The researcher distributed questionnaires to lecturers in all the four faculties of UL to Faculty Deans and School Directors at UL.

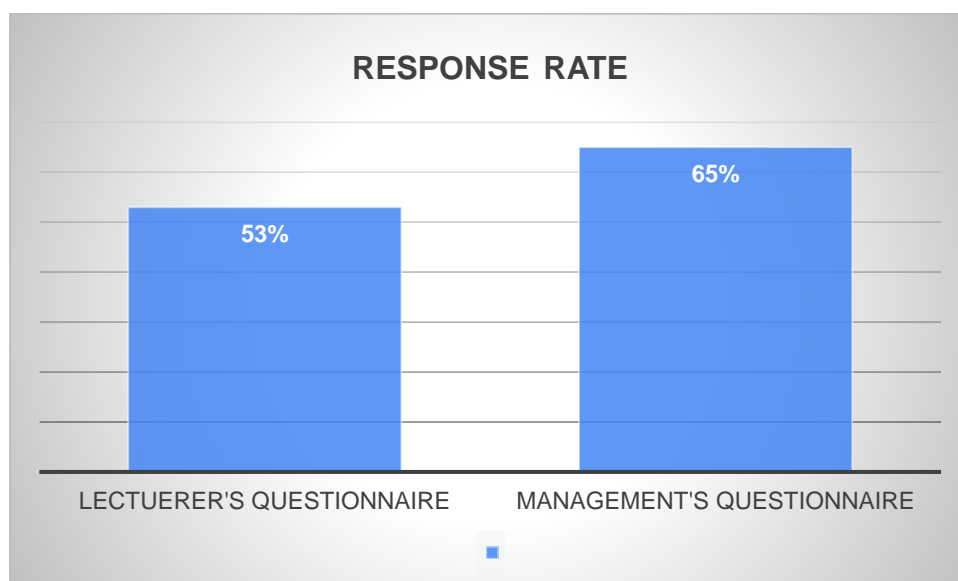


Figure 4.1: Response rate

Figure 4.1 illustrates that 213 questionnaires were sent to 213 sampled lecturers and questionnaires were completed and 113 questionnaires were returned, thus making the response rate 53%, as shown in figure 4.1. This response rate is acceptable considering the constraints the researcher encountered due to the Covid-19

regulations. According to Babbie (1989:242), a response rate of 50% is adequate for analysis and reporting. The researcher also sent a total number of 17 questionnaires to Directors of Schools and Deans of Faculties. 11 questionnaires were completed and returned, making a response rate of 65%, which was considered good. A response rate of 50% is adequate, 60% is good and 70% is very good (Leedy & Amrod, 2013). Therefore, the response rate of this nature was good enough for the researcher to draw valid conclusions from the results.

QUANTITATIVE DATA ANALYSIS (LECTURERS' QUESTIONNAIRE)

4.3 Respondents' demographic information

The respondents were asked to indicate their demographic data, which included gender, age, occupation (current position), years of experience in the position, the faculty and departments in which they are based. This part of the questionnaire intended to determine the background information of the respondents. Although Abili, *et al.* (2011) argue that demographic characteristics do not have any effect on knowledge sharing, the questionnaire included respondents' profile because the researcher believed that demographic characteristics had a moderating effect on knowledge sharing (Lin, 2008).

4.2. Gender of respondents

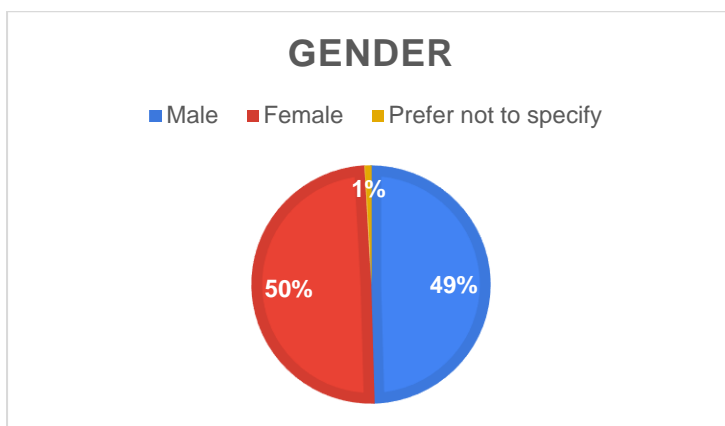


Figure 4.2: Gender (N=113)

Respondents were asked to indicate their gender, to find out which participants were female or male. The gender of the respondents is shown on figure 4.2, where 56(49%)

of the respondents are males and 56(50%) are females. One (1%) respondent preferred not to specify his/her gender.

4.3.2 Age range of respondents

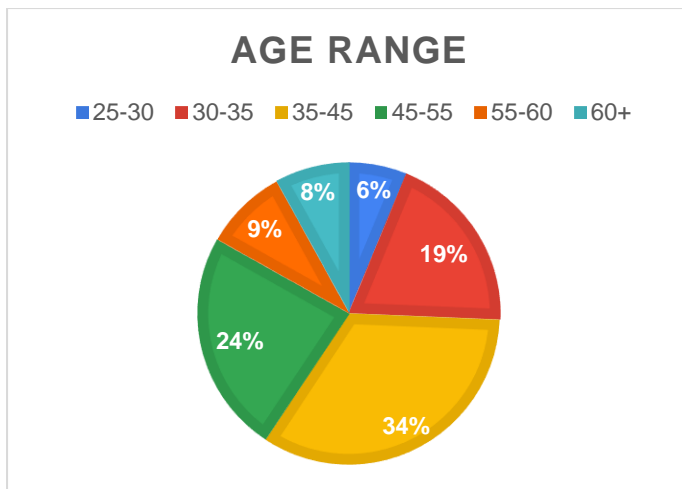


Figure 4.3: Age range (N=113)

The respondents were asked to indicate their age range by selecting a suitable age range. The results revealed that 7(6%) respondents were between the age range of 25-30 years, 22(19%) respondents were aged between 30-35 years, 38(34%) respondents were between the age range of 35-45 years. The results show that 27(24%) respondents were between the age range of 45-55 years, 10(9%) respondents were between the category of 55-60 years and only 9(8%) respondents were above 60 years of age.

4.3.3 Faculties at UL

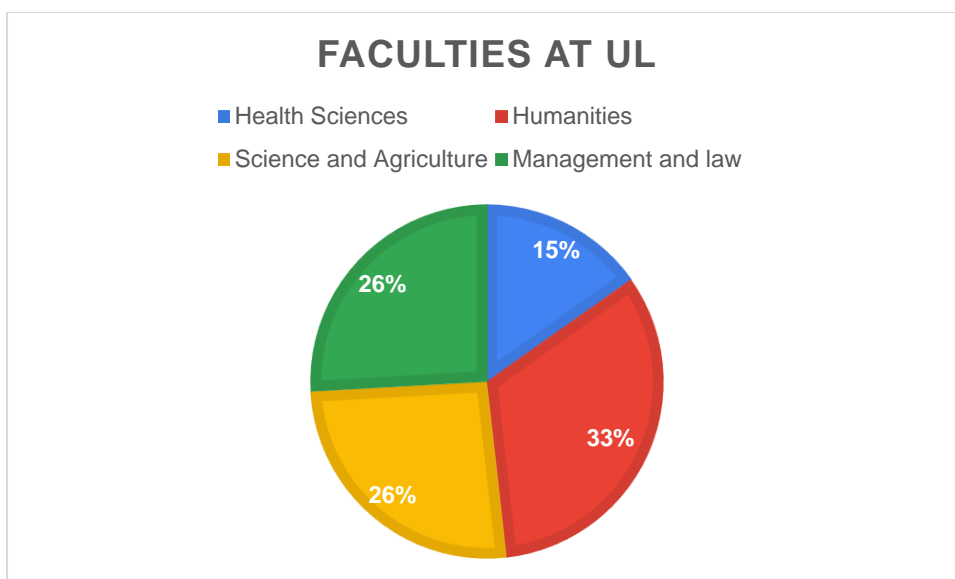


Figure 4.4: Faculties at UL (N=113)

The respondents were asked to indicate the faculty in which they were based. Seventeen (15%) respondents indicated that they were from the Faculty of Health Sciences, 37(33%) were from the Faculty of Humanities; 29(26%) were from the Faculty of Science and Agriculture and 29(26%) were from the Faculty of Management and Law.

4.3.4 Departments in which lecturers were based

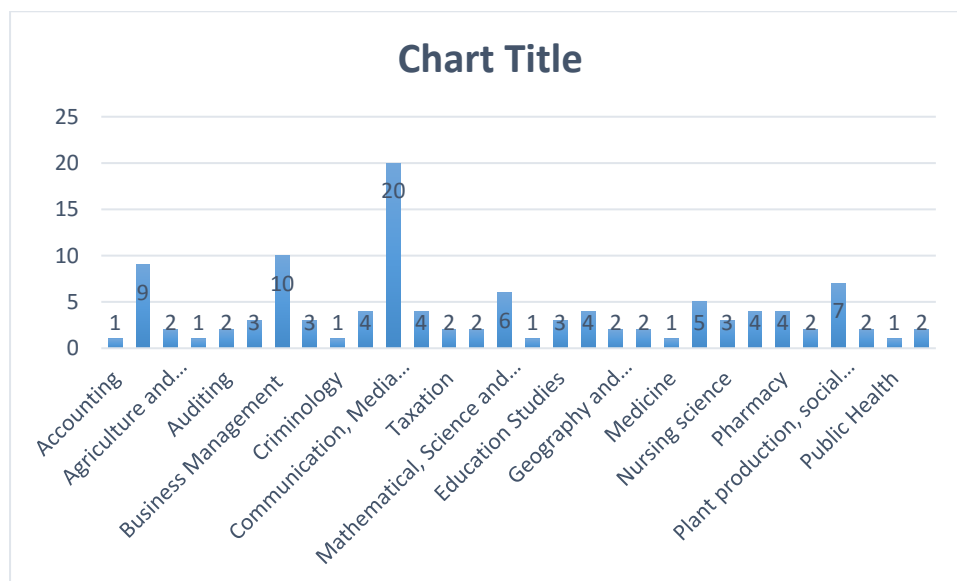


Figure 4.5 Departments at UL (N=113)

Using an open-ended question, the researcher asked the respondents to specify the name of the department in which they were based. The findings in figure 4.4 reveal that 1(0,8%%) respondent was from the Department of Accounting Science, 9 (7,9%) respondents were from Agriculture, Economics and Animal Production, 2(1,7%) were from Agriculture and Environmental Sciences, 1(0,8%) respondents was from Animal Production, 2(1,7%) were from the Department of Auditing. Three 3(2,6%) respondents were based in the Department of Biochemistry, Microbiology and Biotechnology, 10(9%) respondents were from the Department of Business Management, 3(2,6%) respondents were from the Department of Computer Sciences and only 1(0,8%) respondent was from the Department of Criminology. The findings also revealed that 4(3,5%) respondents were based in the Department of Cultural and Political Studies, 20(18%) respondents were from the Department of Communication, Media and Information Studies, 3(2,6%) respondents were from the Department of

Education Studies respondents, 4(3,5%) respondents were from the Department of Financial Management and 2(1,7%) respondents were from the Department of Geography and Environmental studies. The findings further revealed that only 2(1,%) respondents were from the Department of Human Nutrition and Dietetics, 4(3,5%) respondents were from the Department of Linguistics, 2(1,7%) respondents were from the Department of Legal Pluralism, Jurisprudence, Criminal Law and Procedure, 6(5,3%) respondents were from the Department of Mathematical, Science and Technology Education, 1(1,7%) respondent was from the Department of Medicine, 5(4%) respondents were from the Department of Mercantile Labour Law, 3(2,6%) respondents were from the Department of Nursing Science.

Lastly, the findings revealed that 4(3,5%) respondents were based in the Department of Optometry, 4(3,5%) respondents were from the Department of Pharmacy, 2(1,7%) respondents were from the Department of Public Administration, 7(6,1%) were from the Department of Plant Production, from the Department of Psychology, the respondents were 2(1,7%), in the Department of Public Health, there was 1(0,8%) respondent, from the Department of Water and Sanitation, the respondents were 2(1,7%) and there was 1(0,8%) respondent from the Social Sciences, Education and Economic Management Education, 2(17%) respondents were from the Department of Taxation. Therefore, the results show that a majority of 20(18%) respondents were from the Department of Communication, Media and Information Studies.

4.3.5 Highest educational qualification

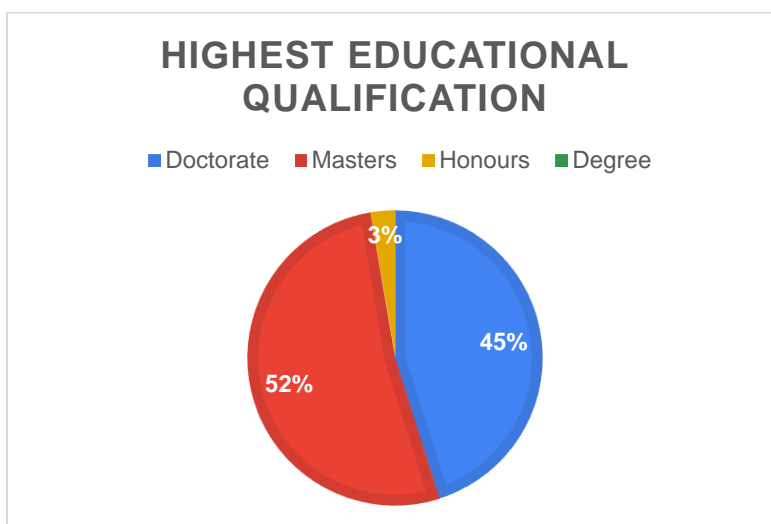


Figure 4.6: Highest educational qualification (N=113)

The respondents were asked to select their highest educational level. Figure 4.5 indicates that most respondents, 59(52%) held a Master's degree, followed by 51 (45%) respondents with a doctoral degree. Only 3(3%) respondents had an Honours degree and 0(0%) respondents held a degree as their highest educational qualification.

4.3.6 Job position at UL

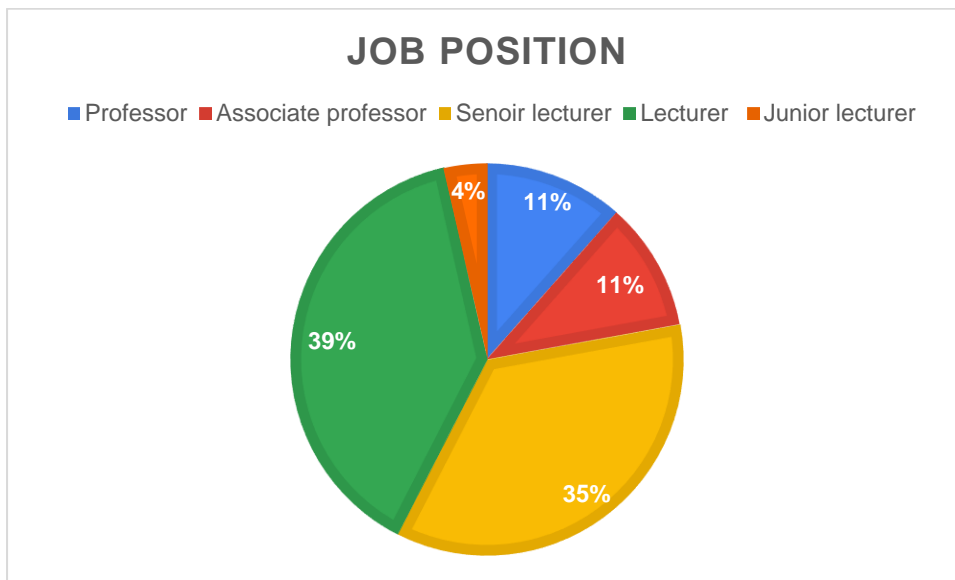


Figure 4.7: Job position (N=113)

The researcher asked the respondents to specify their current job position. Thirteen (11%) respondents were Professors, 12(11%) respondents were Associate Professors, 40(35%) respondents were senior lecturers, 44(39%) respondents were lecturers and 4(4%) respondents were junior lecturers.

4.3.6 Respondents' years of experience

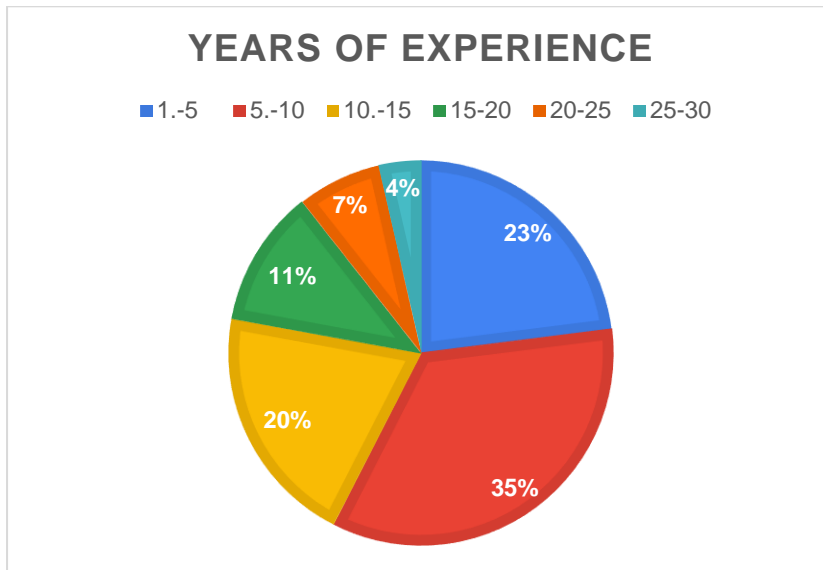


Figure 4.8: Years of experience (N=113)

Respondents were requested to indicate the years of experience in their current position. Results shown in figure 4.7 indicate that 26(23%) respondents had 1 to 5 years of experience, 39(35%) had 5 to 10 years of experience, and 23(20%) respondents had 10 to 15 years of experience in their current position. Only 4(4%) respondents had 25 to 30 years of experience in their current position, 8(7%) respondents had 20 to 25 years of experience and 13(11%) had worked in their current position for 15 to 20 years.

4.4 KS among lecturers

Table: 4.1: KS among lecturers (N=113)

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
I share knowledge with my colleagues after I have attended workshop or training	51(45%)	52(46%)	9(8%)	1(1%)	0(0%)
Knowledge sharing helps me to cope with online teaching	37(33%)	62(55%)	13(11%)	1(1%)	0(0%)
Knowledge sharing helps me solve academic challenges	40(35%)	64(57%)	8(7%)	1(1%)	0(0%)

Knowledge sharing helps me make informed decisions	43(39%)	61(53%)	7 (6%)	2 (2%)	0 (0%)
Knowledge sharing enhances my academic performance	40(35%)	56(50%)	16(14%)	1(1%)	0(0%)
I reach out to senior staff members whenever I need assistance relating to my work	43(41%)	52(46%)	15(15%)	3(3%)	0(0%)
I reach out to junior staff members whenever I need assistance relating to my work	43(38%)	52(46%)	15(14%)	3(3%)	0(0%)
There are training programmes to keep lecturers abreast of developments in their field	45(39%)	53(46%)	12(11%)	4(4%)	0(0%)

The respondents were asked to indicate their level of agreement or disagreement with the statements provided above. Table 4.1 shows that 51(45%) strongly agreed, 52(46%) agreed, 9(8%) were neutral, 1(1%) disagreed and 0(0%) strongly disagreed with the statement, 'I share knowledge with my colleagues after I have attended a workshop or training'. On the other hand, 37(33%) strongly agreed, 62(55%) agreed, whereas 13(11%) were neutral, 1(1%) disagreed and 0(0%) strongly disagreed that 'KS helps them to cope with online teaching'. The results further revealed that, 40(35%) strongly agreed, 64(57%) agreed with the statement that 'KS helps them to solve academic challenges' whilst the other 8(7%) respondents indicated that they were neutral that 'KS helps in solving academic problems'. 1(1%) disagreed and 0(0%) strongly disagreed that 'KS helps them to solve academic challenges'.

With regard to the statement that 'KS helps me make informed decisions', 43(39%) strongly agreed, 61(53%) agreed whereas 7(6%) were neutral, 2(2%) disagreed and 0(0%) strongly disagreed. On 'KS and academic performance', 40(35%) strongly agreed, 56(50%) agreed that KS should enhance their academic performance while 16(14%) were neutral to the statement that 'KS enhances my academic performance', 1(1%) disagreed and 0(0%) strongly disagreed.

Respondents were asked if they reached out to their junior or senior staff members to determine whether knowledge flows from top to bottom or vice versa. 43(41%) strongly agreed, and 52(46%) agreed that they reached out to senior staff members whenever they needed assistance relating to their work. However, some of the respondents, 15(15%), indicated a neutral response to the statement. Fewer respondents 3(3%) disagreed and 0(0%) strongly disagreed with the statement that, 'I reach out to senior staff members whenever I need assistance relating to my work'. A majority of the respondents, 43(38%), agreed, 52(46%) strongly agreed and 15(14%) neither agreed nor disagreed (neutral) with the statement that, 'I reach out to junior staff members whenever I need assistance relating to my work' whereas 3(3%) disagreed to reaching out to senior staff and 0(0%) strongly disagreed.

The researcher asked the respondents about training programmes to discover if the university management encourages continued learning at UL. 45(39%) strongly agreed, 53(46%) agreed, 12(11%) neutral, 4(4%) disagreed and 0(0%) strongly disagreed that there are training programmes to keep lecturers abreast of developments in their field.

4.5 Strategies used to share tacit knowledge

The researcher wanted to discover the strategies used by lecturers to share knowledge. To this end, the respondents were required to select multiple answers to the strategies provided. The responses of the respondents are presented in figure 4.8 below.

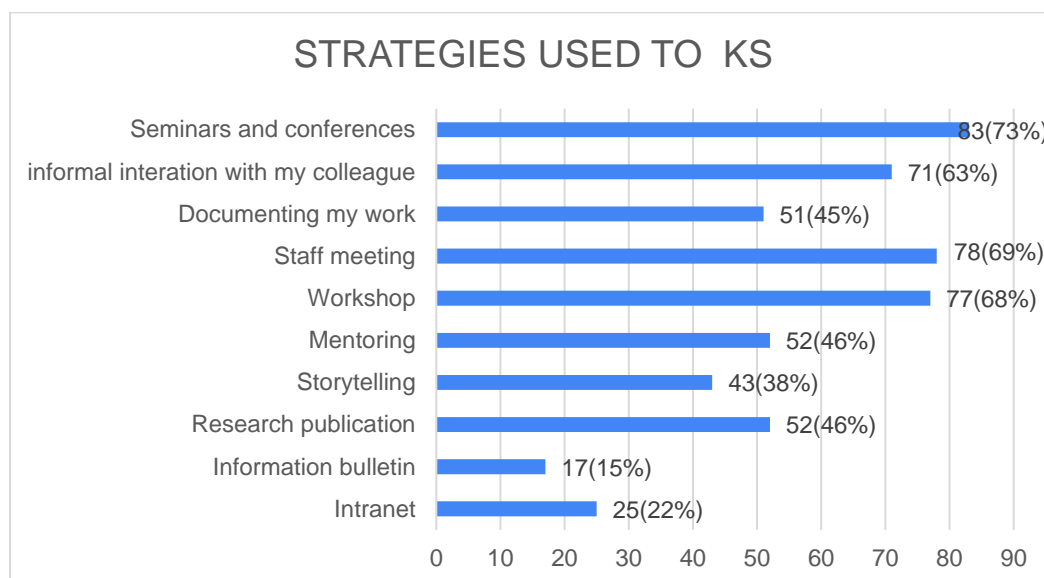


Figure 4.9: KS strategies (N=113)

The results in figure 4.1.7 reveal that 25(22%) of the respondents used the intranet, 17(15%) information bulletins, 52(46%) research publications, 43(38%) use storytelling whereas 52(46%) utilise mentoring to share their knowledge. Moreover, 77(68%) indicated that they shared their knowledge at workshops, 78(69%) during staff meetings, 51(45%) respondents shared their knowledge by documenting or writing, 71(63%) informally interacted with their colleagues and lastly, 83(73%) shared their knowledge during seminars and conferences.

4.6 Role of management in KS

Table: 4.2: Role of management in KS (N=113)

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Management offers lecturers some incentives to encourage them to share knowledge amongst themselves	6(5%)	27(24%)	40(35%)	26(23%)	14(12%)
Management support knowledge sharing activities among lecturers	11(10%)	44(39%)	37(33%)	19(16%)	2(2%)
Management has developed a policy that guides knowledge management activities among lecturers	2(2%)	8(7%)	64(57%)	32(28%)	7(6%)
Lack of management support makes it difficult for lecturers to share knowledge	18(16%)	33(29%)	42(37%)	15(13%)	5(5%)
The existing culture supports trust, and teamwork among the lecturers	15(13%)	51(45%)	32(28%)	12(11%)	3(3%)

The respondents were required to use the Likert scale to rate the role of management in TKS during remote teaching and learning among lecturers regarding the statements given in Table 4.3 above. The results illustrated in Table 4.3 reveal that 6(5%) respondents strongly agreed, 27(24%) agreed, 40(35%) indicated neutral to the statement that, the 'management offers lecturers some incentives to encourage lecturers to share knowledge amongst themselves'. 26(23%) respondents disagreed and 14(12%) strongly disagreed that management offers incentives that could encourage KS among lecturers. The respondents were asked to indicate the level of their agreement or disagreement with the statement that the management supports KS activities among lecturers. 11 (10%) respondents strongly agreed, followed by the majority of 44(39%), who agreed that the management supported KS activities. 37(33%) respondents were neutral, 19(16%) disagreed and a minority of 2(2%) respondents strongly disagreed that the management supported KS activities among lecturers.

On the statement that the 'management has developed a policy that guides knowledge management activities among lecturers', 2(2%) strongly agreed, 8(7%) agreed, followed by a majority of 64(57%) respondents who were neutral while 32(28%) disagreed and 7(6%) strongly agreed that the management has developed a policy that guides lecturers on how to participate in KS activities. The respondents were further asked to agree or disagree with the statement, 'lack of management support makes it difficult for lecturers to share knowledge'. The results revealed that 18(16%) respondents strongly agreed, 33(29%) agreed, 42(37%) were neutral, 13(12%) disagreed and 5(4%) strongly disagreed that the management supported KS activities.

It was a prerequisite for the researcher to ask the respondents about the existing culture at UL. The respondents were asked to agree or disagree if the existing culture supports trust, and teamwork among the lecturers. The results reveal that 14(13%) respondents strongly agreed, 47(45%) agreed, 29(28%) were neutral, 12(12%) disagreed and 2(2%) strongly disagreed that the existing culture at UL supports trust and teamwork among lecturers.

4.7 Tacit knowledge sharing barriers

Table 4.3: KS barriers (N=113)

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
I perceive knowledge as a powerful resource, which I cannot share easily	10(9%)	20(18%)	11(10%)	49(43%)	23(20%)
Competition among lecturers makes it difficult to share knowledge	7(6%)	25(22%)	28(25%)	43(38%)	10(9%)
COVID-19 regulations make it difficult to share knowledge	15(13%)	5(4%)	22(19%)	31(27%)	18(16%)
Internal politics make it difficult for lecturers to share knowledge	8(7%)	28(25%)	37(33%)	32(28%)	8 (7%)

The respondents were asked to indicate their level of agreement or disagreement with the statements provided in Table 4.2. The results reveal that 10(9%) respondents strongly agreed, 20(18%) agreed, 11(10%) were neutral, 49(43%) disagreed, and

23(20%) respondents perceived knowledge as a powerful resource, which they could not share easily.

On competition as a barrier towards sharing knowledge among lecturers, the results revealed that, 5(5%) respondents strongly agreed, 23(22%) agreed, 23(22%) were neutral, whereas 43(41%) disagreed and 10(10%) strongly disagreed. The results further revealed that on the statement, ‘COVID-19 regulations make it difficult to share knowledge’, 12(12%) respondents strongly agreed, 24(23%) agreed, 20(19%) respondents were neutral, 30(29%) disagreed and 18(17%) strongly disagreed that Covid-19 regulations make it difficult to share knowledge. Lastly, 8(7%) respondents strongly agreed and 28(27%) agreed with the statement that ‘internal politics makes it difficult for lecturers to share knowledge’, whereas 32(31%) were neutral while other 28(27%) respondents disagreed and 8(8%) strongly disagreed.

4.8 The ICT infrastructure and ICT skills for KS

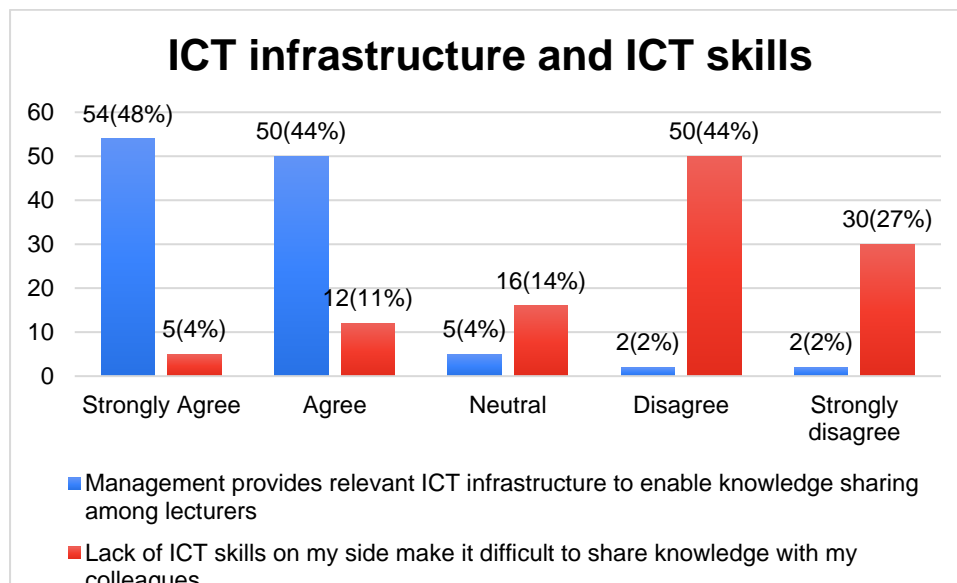


Figure 4.10: ICT infrastructure and ICT skills (N=113)

The respondents were asked to rate their level of agreement or disagreement on the statement, the ‘management provides relevant ICT infrastructure that enable KS among lecturers’. The results in figure 4.6 reveal that a majority of 54(48%) respondents strongly agreed, followed by 50(44%) who agreed and 5(4%) who were neutral. However, 2(2%) respondents agreed and the other 2(2%) strongly disagreed with the statement.

The respondents were requested to indicate their level of agreement or disagreement with whether their lack of ICT skills made it difficult for them to share knowledge during remote teaching and learning. The results show that, 5(4%) strongly agreed, 12(11%) agreed whilst 16(14%) were neutral, 50(44%) disagreed and 30(27%) strongly disagreed with the statement.

4.9 The role of ICT in sharing knowledge among lecturers at UL

The researcher sought to establish how ICT tools are used to share knowledge among lecturers. This was an open-ended question worded thus: '*Comment on how ICT tools are used to share knowledge among lecturers*'. The results were thematically analysed and presented in themes. The results from participants were presented thus:

Theme 1: E-video conference platforms

Participation 1: *"ICT tools such as Zoom, and Google meet can be used."*

Participation 2: *"We have been introduced to google meets so that we should hold workshops and meetings for sharing knowledge."*

Participant 3: *"Email, google meets, report from multimodal committee meetings etc."*

This suggests that ICT tools are used mostly for interactions that require immediate feedback. In other words, ICT tools facilitate a dialogue which results in sharing of tacit knowledge among lecturers.

4.10 Suggested strategies to enhance TKS

The researcher realised the importance of asking the respondents to suggest any strategies that may be used to enhance KS among lecturers. Using an open-ended question, the researcher asked the respondents to suggest strategies that may be used to enhance knowledge sharing among the lecturers at UL. The results from participants were thematically analysed and the following themes emerged from some of the verbatim quotes below:

Theme 1: Online seminars and workshops

The results show that the respondents held the view that online seminars and workshops may be used to enhance KS, as evidenced by the following quotation:

Participation 1: *"Online seminars can be used to enhance knowledge sharing."*

Participation 2: *“Encouraging the setup of informal discussion and presentation platforms like - brown bag lunch could be helpful. The use of the online platforms can even make it easier to conduct such”.*

Participant 3: *The University can organise quarterly seminars where lecturers meet and share their experiences on teaching and learning”.*

QUALITATIVE DATA ANALYSIS (MANAGEMENT QUESTIONNAIRE)

4.2 Respondents' demographic information

As stated in section A (demographic section of quantitative data analysis), demographic characteristics can influence KS. Therefore, this section of the questionnaire intended to determine the background information of the respondents.

4.2.1 Gender of respondents

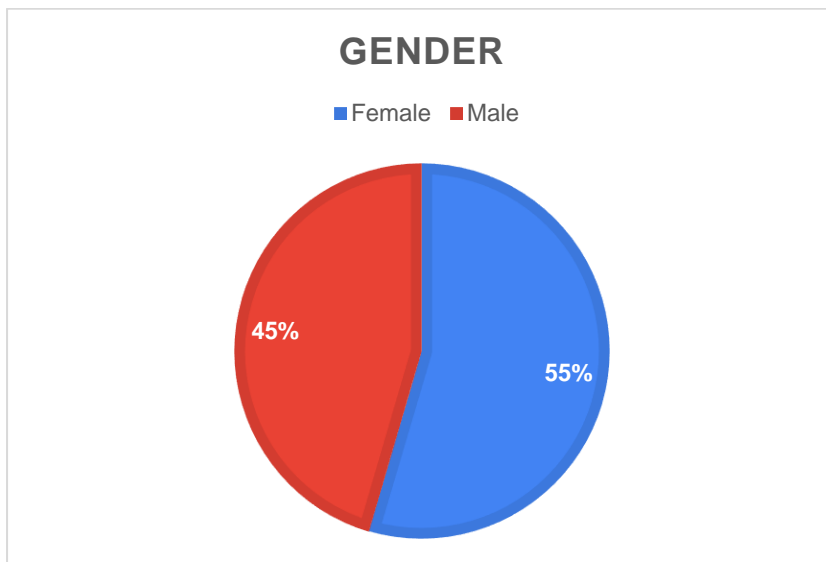


Figure 4.11: Gender of respondents (N=11)

The respondents were asked to indicate their gender to find out which participants were female or male. The gender of the respondents is shown on figure 4.1, revealing that 4(44%) respondents are males and 5(56%) are females. This means that the majority of respondents, 56%, are females.

4.2.2 Age range of respondents

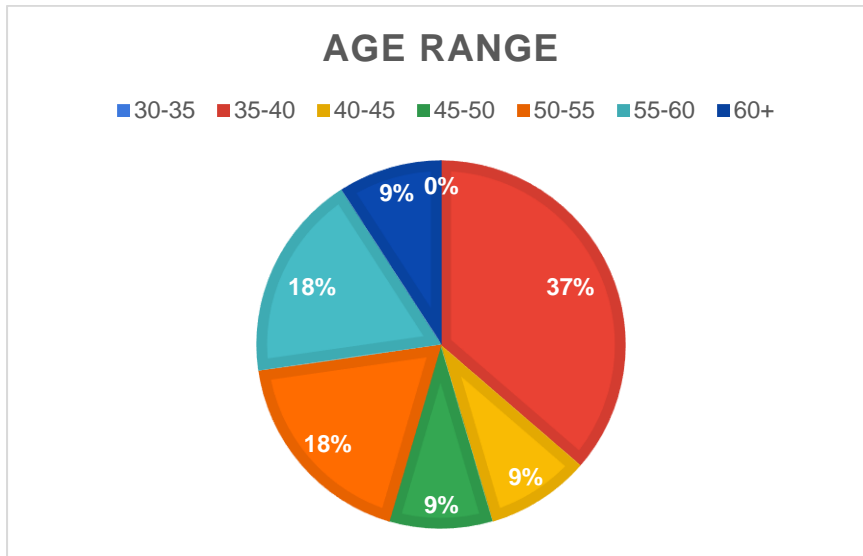


Figure 4.12: Age range of respondents (N=11)

The respondents were asked to indicate their age range to discover age differences among lecturers. Figure 4.2.2 shows that 0(0%) of the respondents were aged from 30-35, 4(37%) were aged from 35-40, 1(9%) respondent was aged from 40-45, 1(9%) was aged from 45-50, 2(18%) respondents were aged from 50-55 years, 2(18%) respondents were aged from 55-60 and 1(9%) respondents was aged 60+.

4. 2.3 Years of experience in the current position

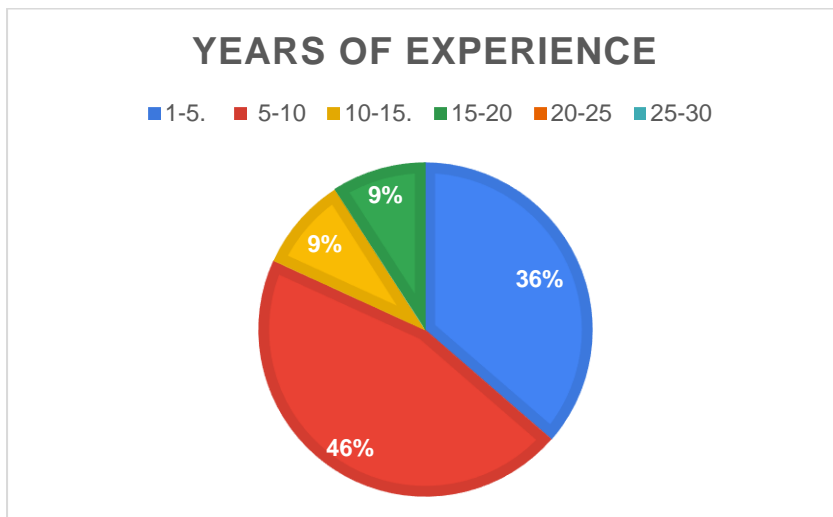


Figure 4.13: Years of experience (N=11)

The respondents were asked to indicate the years of experience in their current position. The years of experience varied from 1 year and 30 years. The results in figure 4.2.3 show that 5(45%) respondents had 1-5 years of experience in their current position, 4(36%) respondents had 5-10 years, the minority, 1(9%), had 10-15 years and 1(9%) had 15-20 years of experience.

4.2.4 Highest educational qualification

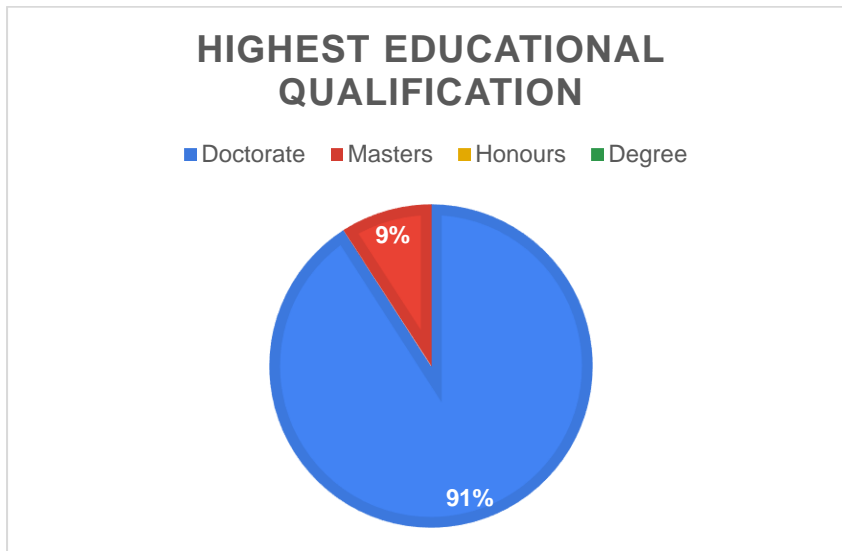


Figure 4.14: Highest educational qualification (N=11)

The respondents were asked to indicate their highest educational qualification. Figure 4.2.4 shows that 10(91%) respondents held a Doctoral degree while 1(9%) respondent held a Masters' degree, 0(0%) held an Honours and 0(0%) held a degree as their highest educational qualification.

4.2.5 Faculty of respondents

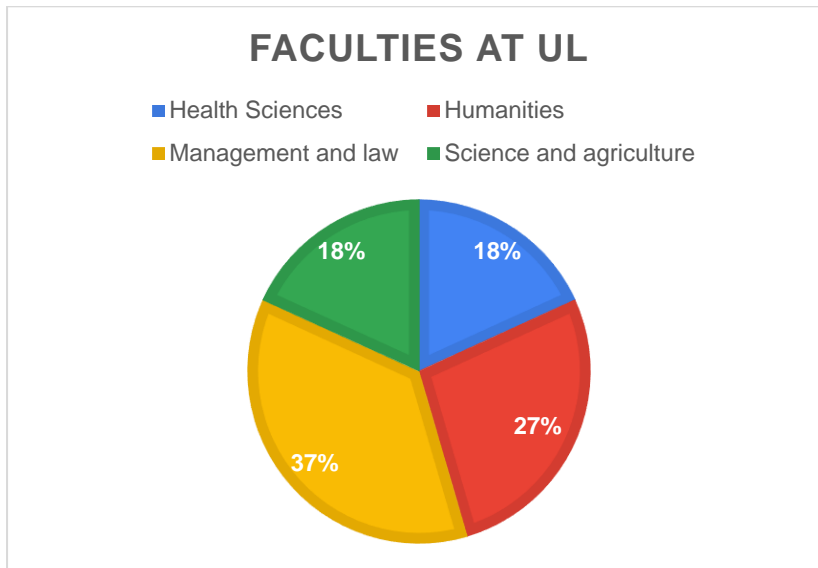


Figure 4.15: Faculties at UL (N=11)

Respondents were asked to select the name of the Faculty in which they were based. Figure 4.2.5 shows that 2(18%) respondents were from the Faculty of Health Sciences, 3(27%) were from the Faculty of Humanities, 2(18%) were from the Faculty of Sciences and Agriculture and 4(37%) were from the Faculty of Management and Law.

4.3 Knowledge sharing

Table 4.4 : The role of management in KS (N=11)

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
My performance contract entail a key result area relating to knowledge management activities	2(18%)	3(27%)	3(27%)	3(27%)	0(0%)
In my faculty lectures are rewarded for sharing their knowledge	1(9%)	4(36%)	5 (45%)	0(0%)	1(9%)
There is a policy for knowledge management in my faculty	0(0%)	0(0%)	11(65%)	0(0%)	0 (0%)
There is a sufficient budget to support knowledge management activities	3(27%)	6(55%)	2(18%)	0 (0%)	0 (0%)

There is sufficient ICT infrastructure to support knowledge sharing among lecturers	8(73%)	2(18%)	0 (0%)	1(9%)	0 (0%)
There are cases where lecturers neglect their key responsibilities trying to assist one another	0(0%)	0(0%)	2 (18%)	5 (45%)	4(36%)
I understand and support knowledge sharing among the lecturers	7(64%)	4(36%)	0 (0%)	0 (0%)	0 (0%)

The respondents were asked to indicate their level of agreement or disagreement with the statements provided on Table 4.1. The results show that 2(18%) respondents strongly agreed, 3(27%) agreed and 3(27%) were neutral to the statement, 'my performance contract entails a key result area relating to knowledge management activities', whereas 3(27%) respondents disagreed and 0(0%) strongly disagreed that performance contract entails a key result area relating to knowledge management activities. 1(9%) respondent strongly agreed, 4(6%) respondents agreed, 5(45%) are neutral, 0(0%) disagreed and 1(9%) strongly disagreed that lecturers were rewarded for sharing their knowledge. A total 11(65%) respondents were neutral to the statement that, 'there is a policy for knowledge management in my faculty' while none of the respondents 0(0%) strongly agreed, agreed, disagreed and strongly disagreed. 3(27%) respondents strongly agreed that there is a sufficient budget to support knowledge management activities, followed by the majority of 6(55%) respondents who agreed while only 2(18%) respondents were neutral, 0(0%) disagreed and 0(0%) strongly agreed.

None of the respondents strongly disagreed 0(0%), only 1(9%) respondent disagreed that there is sufficient ICT infrastructure to support knowledge sharing among lecturers, the majority of 8(73%) respondents strongly agreed, followed by 2(18%) respondents who agreed that there is sufficient ICT infrastructures for KS. 0(0%) respondents strongly agreed, 0(0%) respondents agreed, 2(18%) were neutral, 5(45%) disagreed and 4(36%) strongly disagreed that there were cases where lecturers neglected their key responsibility to interact and assist each other. Lastly, the results show that 7(64%) strongly agreed, 4(36%) agreed, 0(0%) disagreed and 0(0%) strongly disagreed that they understood and supported KM activities. None (0 %) of

the respondents were neutral on whether they understood and supported KM activities.

4.4 Teamwork spirit among lecturers

The researcher sought to fathom the teamwork spirit among lecturers. Using an open-ended question, which was analysed using thematic analysis, the respondents were asked to *'Describe the teamwork spirit among the lecturers in your faculty'*. The themes that emerged were the following:

Theme 1: Productive teamwork

Participant A: *"They support one another"*.

Participant B: *"Lecturers of the same field normally share knowledge before lecturing"*.

Participant C: *"Lecturers in the same disciplines work together"*.

Participant D: *"Satisfactory"*.

Participant E: *"Teamwork spirit is positive as lecturers work in teams"*.

Participant F: *"Lecturers work together"*.

Participant G: *"Is good"*.

Participant H: *"Excellent"*.

Participant I: *"Excellent"*.

Participant J: *"Friendly and productive teams"*.

Participant K: *"Very good"*.

4.5 Programmes encouraging TKS

The researcher sought to uncover the programmes that the UL management uses to encourage KS among lecturers. Using an open ended question, the researcher asked the respondents if, *'There are programmes designed to encourage continued learning and sharing of knowledge, experiences, and expertise among lecturers....'* The emergent themes were:

Theme 1: Workshops

Participant A: *“Yes, Diploma in Higher Education”*.

Participant B: *“This is done through workshops”*.

Participant C: *“Not in all settings, but some do”*.

Participant D: *“Yes. Postgraduate studies and workshops”*.

Participant E: *“Yes. Bursaries”*.

Participant F: *“Workshops, seminars and short courses”*.

Participant G: *“Yes. Workshops, conferences, training and induction”*.

Participant H: *“Seminars and conferences”*.

Participant I: *“Postgraduate studies, workshops”*.

Participant J: *“Seminars”*.

Participant K: *“Workshops”*.

4.6 Knowledge retention strategies

The researcher sought to uncover how the UL management retain the knowledge of the lecturer leaving employment at the University. The researcher asked, *‘How do you retain the knowledge of the lecturer leaving the employ of the University’*. The results were thematically analysed and the following theme was developed:

Theme 3: Mentoring

Results show that mentorships are a way of retaining knowledge. This is evidenced by the verbatim quotes below:

Participant A: *“Teaching and Learning material developed”*.

Participant B: *“All lecturers are required to share their lecturing material and they are filed at departmental and school level”*.

Participant C: *“Creation of Subject Files, saved in soft format on USB or computer”*

Participant D: *“Not sure”*.

Participant E: *“Reach out”*.

Participant F: *“They serve a certain period before they leave and they are required to mentor the persons who will take over”.*

Participant G: *“A leaving employee mentor others”.*

Participant H: *“Keep in touch”.*

Participant I: *“Lecturers mentor junior staff”.*

Participant J: *“Exit interview”.*

Participant K: *“Observation. Through experience of working with the leaving employee. We observe on their way of doing things”*

4.7 Channels of KS

Theme 4: Electronic communication

Using an open-ended question, the participants were asked to state *“How Covid-19 affected KS among the lecturers”*. The study uncovered that Covid-19 has migrated the mode of communication from face to face to electronic channels of communication. Some of the respondents remarked as follows:

Participant A: *“Because working remotely was difficult for some people and they had a void.”*

Participant B: *“It affected it positively in that online communication allows one to share more knowledge than if the knowledge was shared physically.”*

Participant C: *“Lecturers were highly affected in a negative way.”*

Participant D: *“Affected face to face communication.”*

Participant E: *“Lecturers are now communicating through the use of ICT.”*

Participant F: *“Bad.”*

Participant G: *“Transition from face to face to virtual interaction.”*

Participant H: *“Negatively.”*

Participant I: *“Interactions were switched to online.”*

Participant J *“Faster communication through the use of ICT.”*

Participant K *“Covid-19 led to digital communication.”*

4.8 KS strategies

Theme 5: Colloquium

The study sought to find strategies that can be applied to improve KS among the lecturers in the Faculty. The results show the seminars and conferences that emerged as suggested strategies that may be used to improve KS among lecturers at UL. This is evidenced by the verbatim quotes below:

Participant A: *“Conferences, workshops.”*

Participant B: *“Seminars and conferences presentations.”*

Participant C: *“Round table discussions.”*

Participant D: *“Never to go back to physical knowledge sharing, to continue sharing and discussing online.”*

Participant E: *“Ensure that creation of subjection files is a mandatory requirement.”*

Participant F: *“Create a continuous interactive environment.”*

Participant G: *“Encourage sharing of duties in modules (co-lecturing where desirable).”*

Participant H: *“Encourage and foster social cohesion.”*

Participant I: *“Form social contact groups through platforms such as WhatsApp.”*

Participant J: *“Have regular contact sessions for colleagues to share ideas”.*

Participant K: *“Offices in cubic and workshops.”*

4.9 Summary

In this chapter, quantitative data as responses to open-ended questions were analysed. The findings of the study were discussed in two sections. The first section covered questionnaire for lecturers and the last section covered questionnaire distributed to management. The next chapter discusses the summary of the findings, recommendation and conclusion of the study.

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.1 Introduction

The previous chapters presented the results collected through the questionnaire. This chapter discusses the results based on the research objectives and the two theories that undergirded the study, namely; the SECI Model and the Knowledge Enterprise Model. The study aimed to examine sharing of tacit knowledge among lecturers in support of remote teaching and learning at UL, South Africa. The objectives of the study were:

- To explore the importance of TKS among lecturers in support of remote teaching and learning at UL.
- To establish strategies used to share tacit knowledge among lecturers at UL.
- To analyse the role of management support toward TKS among lecturers at UL.
- To identify barriers of TKS among lecturers at UL.
- To determine the role of ICT as an enabler of TKS among lecturers at UL.

5.2 Discussion of data for each objective

This section discusses the findings in line with each objective of the study. The preliminary discussion uncovered and discussed the findings for Part A, followed by Part B on the data collected and analysed.

QUANTITATIVE DATA (LECTURERS' QUESTIONNAIRE)

5.2.1 Biographical information of the respondents

The biographical information of the respondents was not part of the objectives of the study. Nonetheless, the researcher obtained biographical information of the respondents to support the findings of the study. The researcher sought to uncover the respondents' biographic information such as gender, age, the faculty and departments to which they belong at UL, their years of experience and highest educational qualification.

The findings from the questionnaire revealed that there was an almost equal number of males 56(50%) and females 56(49%) who participated in the study. Research shows that gender has a significant relationship with KS, as it is indicated that male

lecturers share knowledge more than female lecturers (Akosile & Olatokun, 2019:421). Contrarily, the findings from the interview (figure 4.2) revealed that 6(55%) of respondents are females. This could mean that gender equality is practised at the level of UL management, as both females and males are involved in managerial positions. In contrast, Carlson's (2015:13) findings indicate that females experience greater bias and uneven paths to management in universities. With regards to the age range of respondents, the questionnaire findings in figure 4.2 revealed that a majority, 38(34%), of the lecturers were aged from 35-40. These findings are similar to the findings from the interviews in figure 4.2, which revealed that the majority 4(37%) of members of management (Deans and Directors) at UL were aged from 35-40. This means that Deans and Directors at UL are no longer youths; they are mid-aged managers who may bring modern management styles. Moreover, scholars specified that the youngest (30 years or younger) and oldest (over 50 years) age groups had a more positive perception towards KS than the middle groups and that, most managers are aged from 30-50.

Larsson and Bjorklund (2020:669); Marouf (2015:110); Ellwart, Bundgens and Rack (2013:951) found that the age range at organisational and individual levels decreased KS in organisations. Younger lecturers may want to learn from older lecturers, whereas older lecturers may not be willing to share their knowledge (Bratianu & Orzea, 2011). However, work functions are evolving in age, as nowadays some older employees report to younger managers (Cogin, 2012). In other words, less emphasis is put on age and more on who possesses more experience (Eby, Rhodes & Allen, 2007). Lecturers who share and receive knowledge amongst themselves can reduce organisational knowledge loss (Harvey, 2012). Lastly, Tonnessen and Flaten (2021:8) found that females and older staff are more involved in digital KS.

On the other hand, the findings from the questionnaire revealed that the majority, 37(33%), of lecturers are from the Faculty of Humanities and a majority, 20(18%), of the respondents were from Department of Communication, Media and Information Studies, which is under the Faculty of Humanities. This is consistent with Akosile and Olatokun's (2019:420) findings that, 97% of lecturers in universities come from the Faculty of Humanities and are willing to share knowledge. A large number of lecturers from Humanities implies that KS among lecturers in support of remote teaching and learning is likely to be effective. It was also found that a higher number, 4(37%) of

managers were from the Faculty of Management and Law. This suggests that the management at the Faculty support KS among lecturers.

Lecturers with the highest educational qualifications were involved in KS in efforts to share their expertise. This is supported by the results in figure 4.1.4, which revealed that a majority, 59(52%), of lecturers employed at UL were in possession of a Master's degree. Maiga's (2017:170) findings at the University of KwaZulu-Natal also revealed that most of the lecturers were Master's degree holders. In addition to the educational qualification, the results in figure 4.2.4 revealed that, a majority, 10(91%), of the respondents held doctoral degrees. These findings are consistent with Maiga's (2017:158) findings, which revealed that a majority, 13(72%), of deans possessed doctoral degrees. Therefore, this implies that a majority of UL management members are highly qualified for their positions. According to Alvesson (1995), the highest educational qualifications of employees in universities enable universities to be competitive in a knowledge economy (Annansigh, 2018:1002).

The findings show that UL employed more lecturer positions by 44(39%), followed by 40(35%) in senior lecturer positions. Knowledge sharing means sharing a lecturer's knowledge, skills and experience (Nazim & Mukherjee, 2016). Tacit knowledge is deeply rooted in actions and experience. This study found that 39(35%) of the lecturers had 5-10 years of experience in their current positions. This suggests that UL has the highest number, 39(35%), of experienced lecturers who can share knowledge with less experienced lecturers, mainly junior lecturers. The study found that, in addition to the years of experience in the respondents' current position, 5(46%) had 1-5 years of experience in managerial positions of being a Dean or a Director whilst 4(36%) had 5-10 years of experience. According to Connelly and Kelloway (2003), experienced employees may simply be more able to share their knowledge because they know more of the right people in the organisation.

5.2.2 Importance of sharing tacit knowledge

The findings from the questionnaire revealed that KS improves lecturers' decision-making processes. Evidently, 61(53%) of the lecturers acknowledged that KS helps them to make informed decisions. Arduin, Grundstein and Rosenthal-Sabroux (2013:14) aver that when individuals externalise, combine and internalise tacit knowledge, they increase collaborative decision-making. When lecturers are involved in high-quality decision-making practices, they enhance the organisation's job performance (Yu, Shang, Wang, & Ma 2019:11).

Lecturers at UL know the Importance of sharing tacit knowledge, as evidenced by the majority, 52(46%), of lecturers who shared knowledge with their colleagues after attending a workshop or training. This is supported by Nkuna's (2021:81) findings, where a majority of the respondents, 58(96.7%), indicated that NIOH staff share knowledge with colleagues within the organisation. According to the SECI Model, KS occurs in the socialisation stage. These findings are similar to those of Eiriemiokhale and Idiedo (2020:41), who conducted a study on KS practices among lecturers in Nigerian universities and found that when lecturers have positive perceptions towards KS, they share tacit knowledge (Eiriemiokhale & Idiedo, 2020:41). In contrast, Ehijagbone and Olatokun (2020) concluded that, "even though it might be an unconscious behaviour, lecturers at the University of Ibadan rarely share tacit knowledge with one another".

Kuruppuge and Gregar (2017:18) found that KS behaviour contributed significantly to employee performance. High-performance employees tend to have excellent performance and strive continuously to achieve individual goals by utilising, learning, and sharing knowledge (Zimmermann & Ravishankar, 2014). Similarly, this study found that half, 56(50%), of the lecturers agreed that KS enhances their academic performance. Yu et al. (2019:12) also showed that KS has a favourable impact on job performance. The findings also revealed that a majority, 52(46%), of lecturers reach out to their seniors when they are in need of assistance. This confirms that there is a good relationship between the superiors and the subordinates, and this may encourage KS among lecturers. Thuan (2020) studied the role of supervisor in KS behaviour towards stimulating subordinate creativity and found that KS between seniors and subordinates positively affected juniors' creative performance.

Naziz (2021:93) studied sharing of tacit knowledge in public sectors and found that 76% of the respondents mentioned that their senior officers in the hierarchy have been their key source of tacit knowledge. 30% of the respondents stated that they offered support to their juniors in the hierarchy when necessary and help them in solving problems. In addition, Seckyoung (2021:12) revealed that KS between senior and junior employees is strengthened when there is a low level of learning goal orientation. This means that when lecturers are eager to increase their knowledge, it is easier to forge a mutual relationship of sharing knowledge.

Lecturers can interact and assist one another through the socialisation process and this requires lecturers to have time, which may lead to the dereliction of duties by some lecturers (Ehijagbone & Olatokun, 2020). The current study found that it rarely happens that lecturers neglect their key responsibilities trying to assist one another. This could be because lecturers tend to share tacit knowledge due to the ease of accessing technology (Aksoy, Ayranci & Gozukara, 2016:348). This may also suggest that lectures are able to balance their work and the process of knowledge sharing at the same time. According to Tong, Tak and Wong (2013:26), there is a positive relationship between KS and job satisfaction.

On the statement, *'The existing culture supports trust, and teamwork among the lecturers'*, the findings from the questionnaires revealed that a majority, 51(45%), of the respondents agreed and 15(13%) strongly agreed that the UL has a culture that supports trust and teamwork among lecturers. Mathrani and Edwards (2020:12) noted that KS depends highly on the culture harnessed within the organisation. Castaneda and Toulson (2013:89) highlight that there are four reasons why culture is the base of KS:

culture shapes assumptions about what knowledge is important, culture determines what knowledge belongs to the organisation or to the individual, it creates a context for social interaction about knowledge and also culture shapes the creation and adoption of new knowledge. Therefore the existing culture at UL supports and encourages KS among the lecturers. The organisational structure and management style play an important role for both external and internal sharing of knowledge.

The study further found that lecturers have a satisfactory and productive teamwork spirit. Using an open-ended question, the researcher asked members of the management to *“Describe the team work spirit among the lecturers in your faculty”* to understand the teamwork spirit among lecturers. The data were thematically analysed and the following themes emerged from the data collected:

Theme 1: Productive Teamwork

The findings from the interviews show that teamwork among lecturers is satisfactory and productive. Lecturers have a good teamwork spirit, work together and share knowledge. This evidenced by the following verbatim quotes:

Participant A: *“They support one another”*.

Participant B: *“Lecturers of the same field normally share knowledge before lecturing”*.

Participant C: *“Lecturers in the same disciplines work together”*.

These findings suggest that they are group discussions, also known as COPs, among lecturers at UL. Thus, different departments can work together on KS activities to increase the academic performance of lecturers (Kuruppuge & Gregar, 2017:19).

5. 2.3 Strategies of sharing tacit knowledge

Averweg (2011:5) says “an intranet is seen as a tool for more efficient sharing and creation of knowledge within an organisation, using both ‘push’ and ‘pull’ technologies”. The questionnaire results of this study uncovered that 25(22%) respondents used the intranet as a strategy to share tacit knowledge. Balubaid (2013) found that the intranet is one of the technologically enhanced applications that allowed universities to augment KS. Studies confirm that knowledge is shared through the internet, intranet and ICT (Chatterjee, 2014). Additionally, intranets allow internal communication among staff members rather than one-way communication, thus proliferating the sharing of knowledge. This openness of communication encourages conversation and makes it simple for subject matter experts to contribute their knowledge and views. With regards to information bulletin, the results indicated that 15% of lecturers used it to share tacit knowledge. This percentage denotes a very low

usage of the information bulletin, which could mean that lecturers at UL rarely use the information bulletin to share their knowledge.

Research publication as a strategy to share tacit knowledge was used by 52(46%) lecturers at UL. This could mean that co-writing and co-publishing may elicit TKS among lecturers at UL. Kawalilak and Warrell (2013) confirm that co-publishing encourages lecturers to interact and share knowledge with each other. In contrast, Gerbin and Drnovsek (2020:1549) found that lecturers omit relevant knowledge from their peers (lecturers) in co-publishing.

43% of lecturers stated that they used storytelling as a KS strategy. These findings are consistent with Naziz (2021:93), who also found that, about 62% of the respondents shared knowledge in the form of experience and stories with their co-workers, within the same department and in other departments. Muchaonyerwa (2015) investigated strategies available for KS strategies in university libraries in the KwaZulu-Natal Province of South Africa and found a rareness of insight and unawareness with the notion of storytelling as a KS channel among library staff in the universities studied. It was clear from the findings that storytelling was perceived as an unofficial tool for knowledge sharing and that it was non-existent in university libraries. Moreover, a recent study by Chipeta (2018) highlighted that storytelling as a strategy for KS in an unofficial environment amongst lecturers in institutions investigated remains undefined.

Regarding mentoring as a strategy to share tacit knowledge, 52(46%) lecturers revealed that they use mentorship to share their tacit knowledge. Mahlangu (2014) explored the role of social media and knowledge transfer in mentorship. The study found that mentees and mentors concur that mentoring cultivates KS. In addition, based on the Knowledge Enterprise Model, as an organisational learning element, mentoring enables organisations to transform individual knowledge into organisational knowledge (Basten & Haamann, 2018:1). Universities generate knowledge that is shared using different strategies such as workshops (Tan, 2017). This was supported by 77 (68%) lecturers who indicated that they utilised the workshop as a TKS strategy. This is consistent with the results of the study conducted by Ehijagbone and Olatokun (2020), which established that lecturers at the University of Ibadan used workshops to share tacit knowledge. Lecturers interact during workshops and gain new knowledge.

According to the SECI Model, lecturers gain new knowledge during the internalisation stage. In addition, the Knowledge Enterprise Model points out that organisational learning is encouraged through workshops.

In the context of this study, lecturers also shared knowledge during staff meetings. Mathrani and Edwards (2020:10) who studied KS strategies in distributed collaborative product development found that respondents shared knowledge in staff meetings, which would take place monthly or weekly. These findings align with the findings of this study, which revealed that 78(69%) respondents shared their knowledge during staff meetings. The study also found that 51(45%) lecturers indicated that they wrote to share their knowledge. Through documentation, there is evidence of externalisation. When the 'knower' writes or documents, they convert their tacit knowledge into explicit knowledge (Davies, 2015). Nonaka and Konno (1998) and Kaufman (2011) confirm that writing (articulation of tacit knowledge) is one of the primary ways to externalise thoughts.

The study further found that a majority, 71(63%), of lecturers indicated that they shared tacit knowledge during informal interaction. As highlighted in this study, informal interactions refer to CoP, where they share and exchange knowledge, norms, values, attitudes, beliefs, ideas and expertise (best practices) (Ramohlale, 2014:151). Mkhize (2015:6) found that CoP occurs when participants informally share ideas, using social media platforms such as blogs and group tweets. In addition, the findings by Nkomo (2021:7) also highlighted that when it comes to sharing tacit knowledge, there were regular informal discussions supported by the management. Moreover, seminars and conferences are joint projects that encourage knowledge creation and KS (Peterson, 2012). 83 (73%) of lecturers at UL used seminars and conferences as a platform for knowledge sharing. This finding is consistent with Chipeta's (2018:118) findings, who indicated that lecturers attended seminars and conferences for capacity building (learning). Tacit knowledge exists within the minds of lecturers at UL. In line with the SECI Model, during seminars and conferences, lecturers cognise and absorb explicit knowledge into tacit knowledge. Still through the SECI Model, lecturers share tacit knowledge during presentations (for example, when a presenter speaks and the audience listens and conversely, when the audience speaks and the presenter listens). This allows internalisation to take place. Internalisation is the process of

converting explicit knowledge into tacit knowledge and is closely related to learning by doing (Nonaka & Takeuchi, 1995).

5.2.3.1 Strategies Suggested for TKS

Using an open-ended question, the members of management and lecturers were asked to suggest strategies that may be used to enhance the sharing of tacit knowledge among lecturers. The findings revealed that workshops and conferences were the strategies that could improve the sharing of tacit knowledge among lecturers. The thematic analysis technique was used and the following themes emerged from the analysis of these verbatim quotes:

Participant A: *“Online seminars can be used to enhance knowledge sharing.”*

Participation B: *“Encouraging the setup of informal discussion and presentation platforms like - brown bag lunch could be helpful. The use of the online platforms can even make it easier to conduct such”.*

Participant C: *“The University can organise quarterly seminars where lecturers meet and share their experiences on teaching and learning.”*

Theme 1: Online seminars and workshops

The results from the lecturers' questionnaire revealed that seminars and conferences are the strategies that may help to improve KS. The findings are consistent with those of the members of the management who suggested that seminars and conferences may be used to encourage the sharing of tacit knowledge among lecturers at UL. Similarly, Mvula (2018) studied KM practices in the University of Zambia and revealed that lecturers use seminars and conferences to share knowledge. Furthermore, Onuoha, Akidi and Chukwueke (2019:29) found that the strategies used to share knowledge among lecturers at the University of Agriculture in Nigeria were seminars and conferences. Based on the verbatim quotes from management's response, colloquia emerged as another strategy that may improve TKS:

Participant A: *“Conferences, workshops.”*

Participant B: *“Seminars and conferences presentations.”*

Participant K: *“Offices in cubic and workshops.”*

Theme 2: Colloquium

In this context, ICT was suggested as a useful tool to hold seminars and conferences. The use of video and telephonic conferences, and emails could allow individuals to share knowledge in online workshops and conferences (Inkinen, 2016). Anasi, Akpan and Adedokun (2014:1) confirm that KS among lecturers has been greatly enhanced in recent times by ICTs. ICT is one of the factors that can help to increase and support KS practices among lecturers, especially in Institutions of Higher Learning (IHLs) (Muda & Yusof, 2015:76).

5.2.3.1 Programmes encouraging TKS

The management was required to suggest any programmes that may be used to encourage lecturers to share tacit knowledge among themselves. The verbatim quotes from the interview revealed the following:

Participant A: *“Yes. Postgraduate studies and workshops”*.

Participant B: *“This is done through workshops”*.

Participant K: *“Workshops”*.

Theme 1: Workshops

The data were analysed thematically and the above-mentioned themes emerged. Based on the findings, many managers suggested that workshops are programmes that may be used to encourage sharing of tacit knowledge among lecturers. Maiga (2017:45) avers that the management is responsible for supporting lecturers by organising trainings, seminars and workshops on knowledge sharing.

5.2.3.2 Knowledge retention strategies

The respondents were asked to state the strategies they used to retain knowledge. This was an open-ended question which required the respondents to express their thoughts. The responses were:

Participant F: *“They serve a certain period before they leave and they are required to mentor the persons who will take over.”*

Participant G: *“A leaving employee mentor others.”*

Participant I: *“Lecturers mentor junior staff”*.

The collected data were thematically analysed and a theme emerged as:

Theme 1: Mentoring

The findings reveal that the management at UL uses mentoring as a strategy to retain the knowledge of lecturers leaving the employ of the University. Ehijiagbone and Olatokun's (2020) findings showed that the University of Ibadan supports sharing tacit knowledge among lecturers by organising orientation programmes to mentor newly employed lecturers, where older lecturers use workshops, seminars and conferences to give directions to newly employed lecturers.

5.2.6 Knowledge sharing channels

The researcher sought to discover how Covid-19 regulations affected communication among lecturers. Using an open-ended question, the researcher asked, *"In your view, how did Covid-19 affect knowledge sharing among the lecturers?"* The verbatim quotes from interviews were captured thus:

Participant B: *"It affected it positively in that online communication allows one to share more knowledge than if the knowledge was shared physically"*.

Participant E: *"Lecturers are now communicating through the use of ICT"*.

Participant G: *"Transition from face to face to virtual interaction"*.

The data collected were thematically analysed and the theme that emerged from the findings was:

Theme 1: Electronic communication

The results reveal that Covid-19 affected the way the respondents shared knowledge. The respondents stated that they shifted from face to face communication to electronic or remote communication. ICT plays an important role in supporting and implementing knowledge management, as there is a significant relation between knowledge management and ICT (Safarzadeh, Soloukdar & Khosravi, 2011). ICT has great potential for KS, supporting education and communication (Shahadat, Mahbub & Che, 2012:63). Therefore, face-to-face interactions and physical proximity are no longer a barrier to TKS (Bartolacci, Cristalli, Isidori & Niccolini, 2016). ICT enabled TKS through the use of VCoP (Buunk, 2020:55).

5.2.4 Role of management in TKS

Management plays a critical role in facilitation of KS. In the context of this study, the management is highly involved in KS activities and promotes sharing of tacit knowledge. 7(64%) managers indicated that they understood and supported KS among lecturers. The findings are supported by the findings from the lecturers, 44(39%), who agreed that the management supports KS activities among lecturers. Management support is one of the critical factors in the implementation of KS. Management in local government organisations can play an important role by ensuring that KS is successfully implemented. Managers should demonstrate a willingness to offer and freely share their knowledge with other employees, and search for and learn new knowledge and ideas (Wong, 2005:267). Therefore, it is the responsibility of the top managers to support KS activities and projects by ensuring that sufficient resources are allocated in terms of money to acquire IT infrastructure, skilled labour, and time for using KS platforms (Ansari, Youshanlouei & Mood, 2012:217; Yassin, Salim & Sahari, 2013:278). There is strong indication that the management at UL supports KS activities among lecturers. This is evinced by a higher number of 44(39%) respondents who agreed and 11(10%) respondents who strongly agreed with the said statement. This is inconsistent with many scholars who found that the element of management support is missing in many organisations, which often results in KM initiatives/activities being unsuccessful. Dikotla (2016) explored KS as a means of improving municipal governance in selected Limpopo municipalities and found that the highest number, 146(48%), of respondents stated that their municipalities did not optimally encourage them to share knowledge. This implies that the management personnel in public sectors did not support sharing of tacit knowledge. Although the management has a positive impact on KS, Lo, Tian and Ng (2021) point out that there is an insignificant linkage between top management support and knowledge sharing. Management support affects the level and quality of knowledge sharing by influencing employees' commitment towards sharing their knowledge (Wang & Noe, 2010). However, Muchaonyerwa (2015:195) says that there is insufficient management support in university libraries.

It is not clear if KS is rewarded at UL, as evidenced by a higher number, 40(35%), of lecturers who were uncertain about it, and 27(24%) and 26(23%) lecturers who agreed and disagreed, respectively, with the statement that the management offers incentives

or rewards to lecturers who engage in KS. In the absence of a reward system, KS among lecturers may not be successful at UL. This is because Ling, Sandhu and Jain (2009) found that the most effective method to promote KS is to link it to rewards and performance appraisal. Tan (2016:540) noted that if organisational rewards increase, KS among lecturers at institutions of higher learning would increase positively. However, universities should note that employees are not motivated by extrinsic rewards, but intrinsic rewards (Chipeta, 2018:229). Examples of intrinsic rewards include a sense of accomplishment, pride, and satisfaction derived from completing a challenging task or from the pursuit of learning (Janus, 2016).

In terms of budget for KM or KS practices, Maiga (2017:110) found 18 (100%) faculty deans stated that universities' budgets are inadequate to meet the academic staff's requirements for the creation and sharing of knowledge in the universities. Unlike other institutions that struggle with budget (Makhaya, 2018; Dikotla 2016:7), the current study established that 6(55%) members of the management agree that there is a sufficient budget to support KM activities during remote teaching and learning. As a result, rewarding and recognising information exchange is necessary (O'Dell & Hubert, 2011). This study found that 5(45%) managers at UL were neutral that in their faculty KS is rewarded whilst only 1(9%) strongly disagreed and 4(36%) agreed. These findings contradict questionnaire results in table 4.2, which demonstrated that 27(24%) lecturers agreed with the statement that, the "*Management offers lecturers some incentives to encourage lecturers to share knowledge amongst themselves*" and that a majority of 40(35%) respondents were neutral to this statement. Therefore, these findings clearly confirm that KS is not rewarded at UL.

In a similar study, Chikomo (2018:58) found that there is a lack of a reward system that encourages KS in Zimbabwe Open University. Researchers (Cheng et al., 2009; Onuoha, Akidi & Chukwueke (2019:26) say that lecturers can only be motivated to share knowledge when they realise that the rewards provided will benefit them. As such, lack of rewards can be a barrier to KS (Titi, 2013: 564). However, Andreeva and Sergeeva (2016:165) state that rewards for KS do not have an impact on knowledge-sharing attitudes and behaviour. Jahani, Effendi and Ramanyah (2013) found that there is a significant relationship between a reward system and knowledge sharing in organisations.

Management support is significant in KS as they are involved in developing and implementing KM policy, which establishes guidelines for the sharing of existing knowledge and promotes continuous learning. This study found that all 11(100%) of the managers were neutral to the statement, *'There is a policy for KM in my faculty'*. Due to the lack of KM policy, many European countries introduced reforms and policy initiatives to encourage and improve university technology and KS (Messeni, 2011). Therefore, Deans of Faculties were involved in policy initiatives and policy making in their institutions (Rhodes, 2014).

5.2.6 Barriers to tacit knowledge sharing

As discussed in Chapter 1, since the outbreak of Covid-19, the University shifted to remote teaching and learning, which rely on the use of ICT tools. The findings from lecturers' questionnaire revealed that 31(27%) lecturers disagreed that Covid-19 regulations made it difficult to share knowledge. Baradziej and Gkikas (2021) studied the impact of the Covid-19 pandemic on knowledge sharing, IT infrastructure flexibility and IT project success and found that the Covid-19 regulations had no negative influence on KS, as lecturers were sharing knowledge through ICT tools. These findings are consistent with current study, which established that Covid-19 regulations did not hinder KS among lecturers at UL. Moreover, in this study, barriers to knowledge sharing were categorised into individual, technological and organisational barriers (Patel, 2015:428; Sandhu et al., 2011:219).

5.2.6.1 Individual barriers

In this study, individual barriers include competition among lecturers and their perception of KS. Some employees believed that sharing their knowledge will make it become obsolete (Dikotla, 2016:239) and consequently make them lose their competitive advantage (Mohajan, 2019). On the other hand, some lecturers perceived knowledge as a powerful tool that cannot be easily shared. For instance, Eirimiokhale and Idiedo (2020:42); Dei and Walt (2020) found that lecturers do not share knowledge because they believed that keeping knowledge to themselves portrays them as powerful. Contrary to this popular belief, UL lecturers had positive perceptions towards knowledge sharing. They did not believe in knowledge hoarding, as evinced by a majority of respondents, 49(43%), who disagreed and 23(20%) strongly disagreed that

they perceived knowledge as a powerful resource which they could not share easily. This explains why the results on table 4.1 revealed that 51(45%) lecturers shared their knowledge after they had attended a workshop or training.

When lecturers are in competition, they are likely to hesitate to share knowledge with their colleagues because once individuals share knowledge, they may lose the ownership of the knowledge and the benefits thereof (Hsu & Chang, 2014). Annansingh (2018:1008) highlights that the political and bureaucratic organisational climate promotes competition among lecturers. Based on the findings, 7(6%) lecturers strongly agreed and 43(38%) lecturers disagreed that competition among lecturers makes it difficult to share knowledge. Consequently, lecturers are likely to be receptive to KS. This is evident in the study carried out by Isa, Jemal and Nordin (2016:219), which reported that library staff members engaged in knowledge sharing due to their trust for one another, their individual personalities, and awareness of the importance of knowledge sharing.

5.2.6.2 Technological barriers

Izo (2020:189) states that the greatest barriers to KS in the library is the lack of ICT capabilities, which include infrastructures and skills. The current study found that UL management provided relevant ICT infrastructure. In this study, 48% of lecturers strongly agreed and 44% agreed that the management provides relevant ICT infrastructures that can be utilised to promote KS during remote teaching and learning. The findings reveal that lecturers at UL are provided with ICT infrastructure, which they use to share knowledge. This could mean that the UL management prioritised ICT infrastructure used for remote teaching and learning. Muda and Yasof's (2015:75) findings showed that ICT infrastructure has significantly influenced KS practices, which in turn influenced the performance of teaching and learning. In terms of the formal processes, the inadequacy of ICT infrastructure and lack of management's recognition may also impede KS in the university (Denner & Blackman, 2013). The Knowledge Enterprise Model stipulates that technology infrastructure promotes an efficient capture of tacit and explicit knowledge, supports efficient and effective KS and makes knowledge accessible. This aligns with the current study which established that ICT aided and facilitated sharing of tacit knowledge by enabling lecturers to manipulate data, store and share knowledge amongst themselves.

The barriers to sharing tacit knowledge among lecturers during remote teaching and learning may be attributed to the lack of understanding on how to adequately share knowledge, which entails ICT capabilities like the use of modern technologies to share knowledge, and social networking skills (Awodoyin, Osisanwo, Adetoro, & Adeyemo, 2016). Provisions of ICT infrastructure facilities as a whole play an important role in improving the frequency of knowledge creation in the process of KM. For instance, physical facilities such as networking, software, and hardware, and internet facilities are the ICT infrastructure that supports KS activities (Noorazah, 2013). The findings from interviews reveal that 8(73%) respondents indicated that there is sufficient ICT infrastructure to support KS activities. These findings support the findings in figure 4.6, which revealed that 48% of the lecturers strongly agreed that the management provides relevant ICT infrastructure that enables KS among lecturers. Jameel and Ahmad (2020:144) emphasise that as long as ICT infrastructure improves KS among lecturers, it will help lecturers to generate ideas and share knowledge learning and teaching techniques during Covid-19. On the contrary, Awodoyin et al. (2016:16) revealed that the lack of ICT tools and ICT infrastructures are not significant barriers to knowledge sharing among academic library staff members.

In the context of this study, lecturers possessed adequate ICT skills. This is supported by the results that indicate that 50(44%) lecturers disagreed with the statement that *“lack of ICT skills on my side makes it difficult to share knowledge with my colleagues”*. This means that lecturers have the necessary skills to use ICT tools to share their knowledge. For instance, they use their skills to make presentations as a way of sharing their knowledge at seminars and conferences or staff meetings. In contrast, Dewah and Mutula (2016) found that through the use of ICT, KS was hindered by the lack of ICT skills among users. Moreover, Muchaonyerwa’s (2015:172) findings established that 39(38.2%) older staff had phobias towards ICTs. KS is commonly considered as an important element of self-learning and helps the development of professional skills (Tong, Tak & Wong, 2013).

5.2.6.3 Organisational barriers

Organisational barriers include lack of management support, poor organisation culture support and lack of a KM policy. Management support is a crucial organisational factor to the sharing of tacit knowledge (Chipeta, 2018:132), and it is also identified as a barrier to KS (Ayodele, 2016:228). The findings from a questionnaire revealed that

42(37%) lecturers were neutral to the statement that the lack of management support makes it difficult for lecturers to share knowledge. Moreover, the findings also reveal that 18(16%) respondents strongly agreed, 33(29%) respondents agreed and 45% of lecturers agreed that the lack of management support makes it difficult for lecturers to share knowledge. These findings are in contrast with those of Corcoran and Duane (2016), which indicated that non-management respondents viewed management support as being a critical advocate of the development of KS initiatives. Furthermore, Olatokun's (2020) findings correspond with this study's findings, which revealed that 33 (29%) respondents agreed that the lack of management support made it difficult for lecturers to share knowledge.

Well managed politics will positively influence TKS among lecturers. Internal politics are organisational politics, behaviours that maximise self-interest and conflict with goals of the organisation (Bashir, Abrar, Yousaf, Saqib & Shabbir, 2019). Another form of internal politics is deception. In the context of this study, deception would be when one lecturer knowingly shares false information. According to Evans and Qureshi (2013:35), deception is regarded as knowledge hoarding, because knowledge hoarding is not only the absence of KS, it is also an intentional attempt to withhold knowledge that has been requested by another person. However, the findings of this study revealed that an unclear evidence of internal politics could hinder KS. This was supported by many lecturers, 32(31%), who were neutral to the statement that "*internal politics make it difficult for lecturers to share knowledge*".

There is no KM or KS policy to guide KS activities/initiatives at UL. This is evidenced by 32(28%) lecturers who disagreed, 7(6%) who strongly disagreed and 64(57%) lecturers who were neutral on whether or not the management developed a policy that encourages KS among lecturers at UL. This may lead to knowledge knowledge spill-over at UL. Ramohlale (2014:151) underscores that the lack of a KS policy makes the institutionalising of knowledge sharing impossible and non-existent. Ehijiagbone and Olatokun (2020) concur that the absence of a policy for KS in the university makes it difficult to share tacit knowledge. Ngulube (2003) asserts that written policies serve as binding contracts between individuals, the organisation and stakeholders. The researcher asked management if their existing performance contract entails KM and found that 3(27%) members of the management agreed, 3(27%) were neutral and

3(27%) respondents disagreed that their performance contract entailed a key result relating to KM activities. Hulsmann, Makoe and Zawada (2016:56) state that every year, lecturers are expected to sign a performance contract based on their activities in the key performance area of lecturers. This is because the performance contract puts emphasis on the KS behaviours of the management and lecturers (Swaab, 2014).

5.2.7 Role of ICT in sharing of tacit knowledge

ICT permits the management or sharing of tacit knowledge (Sefollahi, 2018). ICT tools can support real-time synchronous communication in the forms of chatting, video, and text-based conferencing (Panahi et al., 2013). This facilitating factor of ICT is useful in the socialisation stage. ICT tools such as intranets, emails, groupware and data warehousing, video conferencing facilitates capture, storage, facilitate the sharing of knowledge (Sefollahi, 2018). Furthermore, ICT tools support the combination of knowledge. According to Nonaka, Toyama and Konno (2000), it is beneficial to use ICT tools while acquiring new explicit knowledge within an organisation. The study sought to determine the role of ICT in sharing tacit knowledge. In the questionnaire, the researcher asked, *“Comment on how ICT tools are used to share knowledge among lecturers”*. The following are the verbatim quotes from the lecturers’ questionnaire:

Participant A: *“ICT tools such as Zoom, and Google meet can be used.”*

Participant B: *“We have been introduced to Google meets so that we should hold workshops and meetings for sharing knowledge.”*

Participant C: *“Email, google meets, report from multimodal committee meetings, etc.”*

The results were analysed thematically and the following themes emerged:

Theme 1: Electronic-video conference platforms

The findings revealed that lecturers use ICT tools such as E-video platforms to collaborate, communicate and share tacit knowledge during remote teaching and learning. This means that ICT provides a platform for lecturers to meet and interact virtually. One respondent was said: *“We have been introduced to google meets so that we should hold workshops and meetings for sharing knowledge”*. Therefore, ICT provides a harbour for sharing tacit knowledge, where individuals can freely share their

thought, ideas and perspective (Nkomo, 2021). ICT tools are useful for KS and collaboration because they enable remote teams and individuals to communicate without being constrained by physical distance (Nasimi, Nasimi, Kasmaei, Kasmaei, Basirian & Musapour, 2013). Castaneda and Toulson (2021:678) confirm that ICT tools such as videoconferencing facilitate TKS as they allow dialogue among participants.

5.3 Summary

This chapter discussed the findings of the study, with the discussion aligned with the research objectives and the theoretical framework of this study, namely; the SECI Model and the Knowledge Enterprise Model. The study's main aim was to examine sharing of tacit knowledge among the lecturers in support of remote teaching and learning at UL, South Africa. The study found that lecturers at UL share knowledge to improve their decision-making and academic performance. Furthermore, the study found that lecturers use seminars and conferences as a strategy to share tacit knowledge. It explored the role of management in ensuring that lecturers share tacit knowledge during remote teaching and learning. It was found that the management play a significant role in KS practices, such as moral support, recognition and rewards and provision of resources such as ICT infrastructure. The UL management understood and supported KS as well as provided lecturers with access to ICT infrastructure, including technical support and ICT tools. It was found that there was a lack of a reward system and policy guiding the practices, norms and standards of KS. The study also uncovered barriers to TKS among lecturers at UL, such as lecturers perceiving knowledge as power, competition among lecturers, Covid-19 regulations, internal politics, lack of rewards and lack of a KM policy. The biggest challenge experienced among lecturers during TKS was internal politics. The study further determine the role of ICT as an enabler of TKS among lecturers at UL. The study found that ICT enhances lecturers' capabilities to create, share and store knowledge. The researcher also uncovered that ICT allowed lecturers to use ICT features such as E-video conferencing, which provided a platform for sharing tacit knowledge during remote teaching and learning at UL. The subsequent chapter will present a summary, conclusions, and recommendations of the study.

CHAPTER SIX: SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the summary of the findings, conclusion, recommendations based on the key findings of the study presented in Chapter 4. This is done in line with the objectives. The study examined the sharing of tacit knowledge among lecturers in support of remote teaching and learning at UL, South Africa. The objectives of the study were:

- To explore the importance of TKS among lecturers in support of remote teaching and learning at UL.
- To establish strategies used to share tacit knowledge among lecturers at UL.
- To analyse the role of management support toward TKS among lecturers at UL.
- To identify barriers of TKS among lecturers at UL.
- To determine the role of ICT as an enabler of Tacit Knowledge Sharing among lecturers at UL.

6.2 Summary of the findings

6.2.1 Findings on importance of TKS among lecturers in support of remote teaching and learning at UL

The findings revealed that lecturers at UL share tacit knowledge. This is evidenced by the majority of 61(53%) lecturers who indicated that they shared tacit knowledge and that it helped them in making informed decisions. When lecturers externalise knowledge amongst themselves, they combine their expertise and create new knowledge, which enables them to make informed decisions.

6.2.2 Findings on strategies used to share tacit knowledge among lecturers at UL

The study established that the strategies used to share tacit knowledge among lecturers at UL are online seminars and conferences, as 83(73%) lecturers indicated that they used online seminars and conferences to share tacit knowledge among themselves.

6.2.3 Findings on the role of management towards TKS among lecturers at UL

With regard to the role of management in TKS among lecturers at UL, the study established that the role of management at UL is largely to support and provide relevant ICT infrastructure for TKS. This was evidenced by a majority of 54(48%) respondents who strongly agreed that the “*management provides relevant ICT infrastructure that enables KS among lecturers*”.

6.2.4 Findings on barriers of TKS among lecturers at UL

The study findings established an equivocal evidence of internal politics that could hinder TKS. This was supported by 32(31%) lecturers who were neutral when asked if “internal politics make it difficult for lecturers to share knowledge”. However, 32(28%) lecturers disagreed with the statement.

6.2.5 Findings on the role of ICT as an enabler for TKS among lecturers at UL

The findings revealed that lecturers use e-communication tools such as E-video and conferencing platforms such as Zoom, Google meet, and Teams to hold workshops and meetings to share tacit knowledge in real time. This means that ICT tools are used to increase the capabilities of lecturers to communicate as it facilitates access to knowledge and sharing of tacit knowledge among lecturers.

6.3 Conclusions

The conclusions are provided based on the research findings and are presented according to the research objectives:

6.3.1 Conclusion on the importance of TKS among lecturers in support of remote teaching and learning at UL

The study found that tacit knowledge is shared among lecturers to assist them to make informed decisions and enhance academic performance. Therefore, the study concludes that UL lecturers make informed decisions through TKS and UL may gain a competitive advantage in knowledge-based communities. Kim (2018:133) states that knowledge sharing can be regarded as a voluntary behaviour that contributes to an organisation’s performance and the well-being of society.

6.3.2 Conclusion on strategies used to share tacit knowledge among lecturers at UL

The study established that lecturers use online seminars and conferences to share tacit knowledge. The use of E-video conferencing platforms Teams, Google meet, Zoom not only allows verbal dialogue, but also enables the participants to ask questions in the comment section. Furthermore, in public universities, employee perceptions of injustice can be eradicated by linking the KS with promotion opportunities. Socialisation processes can play a role in encouraging KS with trust and positive intentions. To foster effective KS practices, performance appraisal systems should be based on the sharing of experiences and knowledge with colleagues to foster effective KS practices (Muqadas, Rehman & Aslam, 2016: 7).

6.3.3 Conclusion on the role of management towards TKS among lecturers at UL

The findings revealed that the management provided relevant ICT infrastructure for TKS at UL. However, the researcher concludes that the management's support towards TKS practices is insufficient. The study also established that the management had no contract, policy and a rewards system in place to encourage TKS. Lack of direct involvement by the management may result in ineffective KM or KS practices. According to the Knowledge Enterprise Model, the management should encourage and reward learning, risk taking and KS as well as encourage the use of resources in the best possible way to share knowledge (Anantatmula & Stankoshy, 2005).

6.3.4 Conclusion on barriers of TKS among lecturers at UL

The study established an equivocal evidence of internal politics that could hinder TKS. Organisational politics breaks down trust and becomes a barrier to the sharing of tacit knowledge in the organisation (Evans & Qureshi, 2013). If knowledge is not shared in at UL, lecturers are likely to reinvent the wheel of repetition of efforts and stagnant ideas in one section or person. Yet, Gupta (2011) studied the role of organisational politics towards employees' KS behaviour and work engagement and concluded that organisational politics are unrelated to KS behaviour.

6.3.5 Conclusion on the role of ICT as an enabler for TKS among lecturers at UL

ICT plays a crucial role in KS. It enables effective acquisition, sharing and presentation of knowledge (Ardivicill, 2012:5). The findings revealed that lecturers use E-video conferencing platforms such as Zoom, Google meet, and Teams to hold workshops

and meetings. ICT is one of the factors that can help to increase and support knowledge sharing practices among lecturers at UL.

6.4 Recommendations

The recommendations of the study are based on the findings and conclusions of this study.

6.4.1 Recommendation on importance of TKS among in support of remote teaching and learning at UL

The study showed that lecturers acknowledge the importance of TKS as they work together and they practised KS activities. The researcher recommends that lecturers should maintain the status quo of sharing tacit to enhance decision-making and academic performance. Moreover, they should consider learning other roles of KS, such as solving academic challenges and coping with remote teaching and learning.

6.4.2 Recommendation on strategies used to share tacit knowledge among lecturers at UL

Based on the findings of the study, lecturers and management suggested online seminars and conferences as strategies that could be considered to enhance TKS among lecturers at UL. In contrast, Averweg (2008) suggested that intranets should be seen as an integral part to an organisation's knowledge management strategy tailored to suit and enhance an organisation's knowledge-sharing activities. Moreover, Khoro (2019:65) established that intranet is the most commonly used strategy to share knowledge. Therefore, this study recommends the use of multiple KS strategies enhances the chances of KS among the lecturers as everyone uses the strategy that seems suitable for them.

6.4.3 Recommendation on the role of management towards TKS among lecturers at UL

Munchaonyerwa (2015:120) argues that "KS can become a culture in the organisation if top management regularly displays and reinforces the theme that knowledge is the lifeblood of an organisation". It emerged from the findings that the management provides ICT infrastructure to support TKS among lecturers at UL. Management

support towards sharing tacit knowledge is not sufficient. Therefore, the study recommends that management should develop a policy to guide KS activities, guide which strategies to use to share knowledge as well as encouraging TKS activities by acknowledging lecturers' efforts of sharing their knowledge. Furthermore, Dikotla, (2016) states that if KS and retention are being budgeted for, factors such as rewards and incentives for those involved in KS would be addressed.

6.4.4 Recommendations on barriers of TKS among lecturers at UL

The study found unclear evidence of internal politics that could hinder TKS. Therefore, the researcher recommends that the management should harness and maintain the KS culture and organisational structure of the University. Management should also invest in regular ICT training for lecturers to encourage them to go beyond their capabilities to ensure that their tacit knowledge will contribute to the overall success of the University (Onuoha, Akidi & Chukwueke, 2019).

6.4.5 Recommendation on the role of ICT as an enabler for TKS among lecturers at UL

The study found that ICT and ICT tools facilitated TKS among lecturers in support of remote teaching and learning at UL. Lecturers commonly use ICT to communicate; however, according to the literature, ICTs also facilitate KM activities through the codification of knowledge as well as rich and interactive forms of communication through the Internet (Baloh, Desouza & Paquette, 2011). ICT can be utilised for gathering, storing, retrieving, processing, analysing and transmitting knowledge (Funda, 2019:23). Therefore, the researcher recommends that the management should budget for ICT infrastructure, hardware and software are a prerequisite.

6.5 Recommendation for further studies

Based on the results of this study, the researcher recommends other researchers to focus deeply on:

- Knowledge sharing strategies used to share various types of knowledge in other similar contexts.
- The role of ICT in connecting communities of practice to uncover how or social media will be used by CoP to share knowledge.

6.6 Limitations of the study

The researcher experienced major limitations while conducting this study, due to Covid-19 regulations, which largely restricted face-to-face interaction, the researcher could not reach the desired response rate. Though the researcher sent reminders to respondents to participate in the study, the researcher received negative feedback from some of the respondents. The researcher wanted to interview some respondents but due to Covid-19 restrictions, she converted the interview questions into a questionnaire.

6.7 Summary

In concluding the whole study, the summary of the findings, conclusion and recommendations based on the findings, were provided in this chapter. The chapter incorporated the findings on tacit knowledge sharing among lecturers in support of remote teaching and learning at UL. This findings will be helpful to UL in relation to the sharing of tacit knowledge. Recommendations were subsequently provided to help to improve KS practices and strategies at UL and to serve as a springboard for future research.

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LIST OF APPENDICES

Appendix A: REQUEST LETTER FROM THE STUDENT'S SUPERVISOR



UNIVERSITY OF LIMPOPO

Faculty of Humanities

School of Languages and Communication Studies

Private Bag X1112, Sovenga, 0727, South Africa

Tel: (015) 268 4194, Fax: (015) 268 2868, Email:Maoka.Dikotla@ul.ac.za

University of Limpopo
Private Bag X9485
Polokwane
0700

Dear Sir/Madam

REQUEST FOR RAMOKONE MILDRED SEKWAKWA, STUDENT NO: 201613942 TO CONDUCT RESEARCH AT THE UNIVERSITY OF LIMPOPO.

This letter serves to formally introduce and confirm that RAMOKONE MILDRED SEKWAKWA, STUDENT NO: 201613942 is a Master's student in the Programme of Information Studies at the University of Limpopo. The student has proposed to conduct research on "Sharing of Tacit Knowledge among lecturers in support of remote teaching and learning at University of Limpopo, South Africa".

The Student would like to collect data for the research project by way of distributing questionnaires to University of Limpopo lecturers. You are therefore requested to permit the said student to distribute questionnaires to lecturers who will be sampled.

For more clarity on this request, please call me at 015 268 4198. My e-mail address is Maoka.Dikotla@ul.ac.za

Thank you for your kind assistance. Yours sincerely,

.....
Prof. MA Dikotla- Supervisor

.....
DATE



UNIVERSITY OF LIMPOPO

Faculty of Humanities

School of Languages and Communication Studies

Private Bag X1112, Sovenga, 0727, South Africa

Tel: (015) 268 4194, Fax: (015) 268 2868, Email: sekwakwarmildred@gmail.com

University of Limpopo

Private Bag X9485

Polokwane

0700

Dear Sir/Madam

**Appendix B: REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT
UNIVERSITY OF LIMPOPO**

My name is Ramokone Mildred Sekwakwa. I am registered (201613942) at the University of Limpopo, for Master of information studies Programme in the Department of Media, Communications and Information Studies My research topic is to investigate **“Sharing of Tacit Knowledge among lecturers in support of remote teaching and learning at University of Limpopo, South Africa”**. I therefore, request and seek your consent and permission to have lecturers in faculty of health sciences, humanities, science and agriculture, and management and law and faculty deans as my participants.

This research project will be conducted under the supervision of Prof MA Dikotla Programme of Information Studies in the Faculty of Humanities, Department of Media, Communications and Information Studies, University of Limpopo, South Africa.

I am looking forward for a positive response so that I can commence with the distribution of questionnaire of my research work.

For more clarity on this request, please call me at 063 852 3284. My e-mail address is sekwakwarmildred@gmail.com

Thank you for your kind assistance. Yours sincerely,

RM Sekwakwa

Student No. 201613942

Appendix C: GATEKEEPING PERMISSION TO CONDUCT RESEARCH AT UNIVERSITY OF LIMPOPO



University of Limpopo Office of the Registrar

Private Bag X1106, Sovenga, 0727, South Africa

Tel: (015) 268 2407, Fax: (015) 268 3048, Email: Kwena.Masha@ul.ac.za/Retha.Balie@ul.ac.za

13 June 2022

RM Sekwakwa

Email: 201613942@keyaka.ul.ac.za

Dear Ms RM Sekwakwa,

GATEKEEPER PERMISSION TO CONDUCT RESEARCH

**TITLE: SHARING OF TACIT KNOWLEDGE AMONG LECTURERS IN SUPPORT OF
REMOTE TEACHING AND LEARNING AT UNIVERSITY OF LIMPOPO, SOUTH
AFRICA**

RESEARCHER:	RM Sekwakwa
SUPERVISOR:	Prof. MA Dikotla
CO-SUPERVISOR/S:	N/A
SCHOOL:	Language and Communication Studies
DEGREE:	Masters in Information Studies

Kindly be informed that Gatekeeper permission is granted to you to conduct research at the University of Limpopo entitled: "Sharing of tacit knowledge among Lecturers in support of remote Teaching and Learning at University of Limpopo, South Africa".

Kind regards,

PROF. JK MASHA
UNIVERSITY REGISTRAR

Cc. Prof. RJ Singh: Deputy Vice-Chancellor; Research, Innovation and Partnerships
Prof. RN Madadzhe: Deputy Vice-Chancellor: Teaching and Learning
Dr. T Mabila, Director: Research Development and Administration
Prof. D Maposa – Chairperson: Research and Ethics Committee
Ms M Hutamo – Assistant: Ethics Secretariat
Ms A Ngobe – TREC Secretariat

Finding solutions for Africa

Appendix D: ETHICAL CLEARANCE CERTIFICATE



University of Limpopo
Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 3935, Fax: (015) 268 2306, Email: anastasia.ngobe@ul.ac.za

TURFLOOP RESEARCH ETHICS COMMITTEE
ETHICS CLEARANCE CERTIFICATE

MEETING: 08 December 2021

PROJECT NUMBER: TREC/340/2021: PG

PROJECT:

Title: Sharing Of Tacit Knowledge among Lecturers In Support Of Remote Teaching and Learning at University Of Limpopo, South Africa

Researcher: RM Sekwakwa

Supervisor: Prof MA Dikotla

Co-Supervisor/s: N/A

School: Language and Communication Studies

Degree: Masters in Information Studies

PROF P MASOKO
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: REC-0310111-031

Note:

- i) This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.
- ii) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.
- iii) PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

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**Appendix D: CONSENT FORM
UNIVERSITY OF LIMPOPO
ETHICS COMMITTEE**

PROJECT TITLE: Sharing of Tacit Knowledge among lecturers in support of remote teaching and learning at University of Limpopo, South Africa.

PROJECT LEADER: Prof MA Dikotla

CONSENT FORM

I hereby voluntarily consent to participate in the following project: *Sharing of Tacit Knowledge among lecturers in support of remote teaching and learning at University of Limpopo, South Africa*

I realise that:

1. The study deals with Sharing of Tacit Knowledge among lecturers in support of remote teaching and learning at University of Limpopo, South Africa
2. The procedure or treatment envisaged may hold some risk for me that cannot be foreseen at this stage;
3. The Ethics Committee has approved that individuals may be approached to participate in the study.
4. The experimental protocol, ie. the extent, aims and methods of the research, has been explained to me;
5. The protocol sets out the risks that can be reasonably expected as well as possible discomfort for persons participating in the research, an explanation of the anticipated advantages for myself or others that are reasonably expected from the research and alternative procedures that may be to my advantage;

6. I will be informed of any new information that may become available during the research that may influence my willingness to continue my participation;
7. Access to the records that pertain to my participation in the study will be restricted to persons directly involved in the research;
8. Any questions that I may have regarding the research, or related matters, will be answered by the researchers;
9. If I have any questions about, or problems regarding the study, or experience any undesirable effects, I may contact a member of the research team;
10. Participation in this research is voluntary and I can withdraw my participation at any stage;
11. If any medical problem is identified at any stage during the research, or when I am vetted for participation, such condition will be discussed with me in confidence by a qualified person and/or I will be referred to my doctor;
12. I indemnify the University of Limpopo and all persons involved with the above project from any liability that may arise from my participation in the above project or that may be related to it, for whatever reasons, including negligence on the part of the mentioned persons.

SIGNATURE OF RESEARCHED PERSON

Signed at _____ this ____ day of _____ 2022

Appendix E: QUESTIONNAIRE FOR LECTURERS

Questionnaire guidelines

The purpose of this questionnaire is to collect data from lecturers about sharing of Tacit Knowledge among lecturers in support of remote teaching and learning at University of Limpopo, South Africa.

Instructions:

- Please read thoroughly before answering the questions.
- Please be sincere and answer all questions.
- Use spaces provided to write your answers to the questions.
- You may choose more than one answer where applicable.

SECTION A: BIOGRAPHIC INFORMATION											
1. Please specify your gender											
1. Male		2. Female		3. Other, Please specify:							
2. Please indicate your age range											
1. 25-30		2. 30-35		3. 35-45		4. 45-55		5. 55-60		6. 60+	
3. Please indicate your faculty											
1. Health Sciences											
2. Humanities											
3. Science and Agriculture											
4. Management and Law											
4. In which department are you based?											
5. What is your highest qualification?											
1. Doctorate											
2. Master's degree											
3. Honours											
4. Degree											
6. What is your position at UL?											
1. Professor											
2. Associate professor											
3. Senior lecturer											
4. Lecturer											
5. Junior lecturer											
7. Please indicate years of experience in your current position.											

1. 1-2	2. 5-10	3. 15-20	4. 20-25	5. 25-30		
SECTION B: KS AMONG LECTURERS						
8. Please indicate your level of agreement or disagreement to the below	Strongly agree	Agree	Neutral	Disagree	Strongly disagreed	
1. I share knowledge with my colleagues after I have attended workshop or training						
2. Knowledge sharing helps me to cope with online teaching						
3. Knowledge sharing helps me solve academic challenges						
4. Knowledge sharing helps me make informed decisions						
5. Knowledge sharing enhances my academic performance						
6. I reach out to senior staff members whenever I need assistance relating to my work						
7. I reach out to junior staff members whenever I need assistance relating to my work						
8. There are training programmes to keep lecturers abreast of developments in their field						
SECTION C: KS BARRIERS						
9. Please indicate your level of agreement or disagreement below	Strongly agree	Agree	Neutral	Disagree	Strongly disagreed	
1. I perceive knowledge as a powerful resource, which I cannot share easily						
2. Competition among lecturers makes it difficult to share knowledge						
3. COVID-19 regulations make it difficult to share knowledge						

4. Internal politics make it difficult for lecturers to share knowledge					
SECTION D: KS STRATEGIES					
10. Which strategies do you use to share knowledge? You may select multiple answers					
1. Intranet					
2. Information bulletin					
3. Research publication					
4. Storytelling					
5. Mentoring					
6. Workshop					
7. Staff meeting					
8. Documenting my work					
9. Informal interaction with my colleagues					
10. Seminars and conferences					
SECTION E: ROLE OF MANAGEMENT					
11. Please indicate your level of agreement	Strongly agree	Agree	Neutral	Disagree	Strongly disagreed
1. Management offers lecturers some incentives to encourage lecturers to share knowledge amongst themselves					
2. Management support Knowledge sharing activities among lecturers					
3. Management has developed a policy that guides knowledge management activities among lecturers					
4. Lack of management support makes it difficult for lecturers to share knowledge					
5. The existing culture supports trust, and teamwork among the lecturers					
SECTION F: ROLE OF ICT					
12. Please indicate your level of agreement	Strongly agree	Agree	Neutral	Disagree	Strongly disagreed

1. Management provides relevant ICT infrastructure to enable knowledge sharing among lecturers					
2. Lack of ICT skills on my side make it difficult to share knowledge with my colleagues					
13. Comment on how ICT tools are used to share knowledge among lecturers.					
14. Suggestion any strategies that may be used to enhance knowledge sharing among the lecturers at UL.					

APPENDIX F: QUESTIONNAIRE FOR TOP MANAGEMENT

Questionnaire guidelines

The purpose of this questionnaire is to collect data from lecturers about sharing of Tacit Knowledge among lecturers in support of remote teaching and learning at University of Limpopo, South Africa.

Instructions:

- Please read thoroughly before answering the questions.
- Please be sincere and answer all questions.
- Use spaces provided to write your answers to the questions.
- You may choose more than one answer where applicable.

SECTION A: BIOGRAPHIC INFORMATION												
1. Please specify your gender												
1. Male		2. Female		3. Other, Please specify:								
2. Please indicate your age range												
1. 30-35		2. 35-40		3. 40-45		4. 45-50		5. 50-55		6. 55-60		7. 60+
3. Please indicate years of experience in your current position.												
1. 1-2		2. 5-10		3. 15-20		4. 20-25		5. 25-30				
4. Please indicate the highest educational qualification												
1. Doctorate												
2. Master's degree												
3. Honours												
4. Degree												
5. Please indicate your faculty												
1. Health Science												
2. Humanities												
3. Science and Agriculture												
4. Management and Law												
SECTION B: KS AMONG LECTURERS												
8. Please indicate your level of agreement or disagreement to the below	Strongly agree	Agree	Neutral	Disagree	Strongly disagree							
1. My performance contract entail a key result area relating												

to knowledge management activities					
2. In my faculty lectures are rewarded for sharing their knowledge					
3. There is a policy for knowledge management in my faculty					
4. There is a sufficient budget to support knowledge management activities					
5. There is sufficient ICT infrastructure to support knowledge sharing among lecturers					
6. There are cases where lecturers neglect their key responsibilities trying to assist one another					
7 I understand and support knowledge sharing among the lecturers					
7. Describe the team work spirit among the lecturers in your faculty.					
8. Are there programs designed to encourage continued learning and sharing of knowledge, experiences, and expertise among lecturers? If available, please list programs.					
9. How do you retain the knowledge of the lecturer leaving the employ of the university?					
10. In your view, how did Covid-19 affected knowledge sharing among the lecturers?					
11. What mechanism do you suggest to improve knowledge sharing among the lectures in your faculty?					

APPENDIX G: LANGUAGE EDIT CERTIFICATE

UNIVERSITY OF LIMPOPO

Faculty: Humanities
School: Languages and Communication Studies
Department: Languages



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24 November 2022

TO WHOM IT MAY CONCERN

This letter serves to certify that I have edited a research dissertation titled: **SHARING OF TACIT KNOWLEDGE AMONG LECTURERS IN SUPPORT OF REMOTE TEACHING AND LEARNING AT UNIVERSITY OF LIMPOPO, SOUTH AFRICA** by **RAMOKONE MILDRED SEKWAKWA**. I am an Associate Member of the Professional Editors' Guild in South Africa.

I trust you will find the editing quality in order.

Best regards

Sebola, M

DR. MOFFAT SEBOLA

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