LECTURERS’ UTILISATION OF INSTITUTIONAL LEARNING MANAGEMENT SYSTEMS IN AN ODL HIGHER EDUCATION INSTITUTION IN SOUTH AFRICA

by

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DEDICATION

I dedicate this study to my parents, Samed and Felicity Gani, who taught me the importance of education and without whom I would not have been the person I am today.
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DECLARATION

Student number: 4607-552-6

I declare that LECTURERS’ UTILISATION OF INSTITUTIONAL LEARNING MANAGEMENT SYSTEMS IN AN ODL HIGHER EDUCATION INSTITUTION IN 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.

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SIGNATURE                  DATE
Mrs F Gani
# TABLE OF CONTENT

**Chapter 1**
Overview of the study

1.1 Introduction and background to the study 1
1.2 Problem formulation 4
1.3 Aims of the study 5
1.4 Theoretical framework 6
1.5 Research design and methodology 7
1.5.1 Literature study 7
1.5.2 Empirical research 7
1.5.2.1 Selection of participants 9
1.5.2.2 Data collection 9
1.5.2.3 Data analysis 10
1.5.3 Ethical measures 10
1.5.4 Trustworthiness (reliability and validity) 11
1.5 Clarification of concepts in the context of the study 11
1.6 Division of chapters 13
1.7 Conclusion 14

**Chapter 2**
Review of the literature

2.1 Introduction 16
2.2 A brief overview of learning management systems (LMSs) 16
2.2.1 What are LMSs? 16
2.2.2 LMSs available in the market today 18
2.2.3 The presence of LMSs today 19
2.2.4 The LMS currently in use at Unisa 20
2.3 The primary purposes for which LMSs may be used for and the advantages that LMSs offer 22
2.3.1 Category one: Support tool for teaching and learning 22
2.3.2 Category two: Access to information 23
2.3.3 Category three: Immediate access to communication with students 24
2.3.4 Category four: Administration 25
2.4 Challenges regarding the use of LMSs 26
2.5 What should LMSs be doing? 27
2.6 The relationship between open and distance learning (ODL) and LMSs 29
2.7 The debate surrounding the future of LMSs: A thought provoking argument 31
2.8 Community of Inquiry Framework 34
2.8.1 Social presence 36
2.8.2 Cognitive presence 37
2.8.3 Teaching presence 37
2.9 The link between the Community of Inquiry Framework and LMSs 38
2.10 Conclusion 38
Chapter 3
Research design and methods

3.1 Introduction
3.2 Rationale for empirical research
3.3 Research design
3.4 Research methods
3.4.1 Selection of participants
3.4.2 Data collection
3.4.2.1 Pilot study
3.4.2.2 Semi-structured interviews
3.4.2.3 Interview guide
3.4.2.4 Tape recording
3.4.2.5 Triangulation
3.4.3 Data processing
3.5 Validity and reliability
3.5.1 Credibility
3.5.2 Transferability
3.5.3 Dependability
3.5.4 Confirmability
3.6 Ethical measures
3.6.1 Ethical clearance from UNISA
3.6.2 Access and sampling
3.6.3 Collecting data
3.6.3.1 Respecting the participants
3.6.4 Analysing the data
3.6.4.1 Confidentiality
3.7 Summary

Chapter 4
Data presentation, data analysis and discussion of data

4.1 Introduction
4.2 Discussion of the interviews
4.3 Discussion of themes
4.3.1 Administration
4.3.1.1 Announcement tool
4.3.1.2 Master’s and doctoral (M&D) student activity tool
4.4 Teaching and learning
4.4.1 Discussion forum
4.4.2 Independent learning
4.5 Immediate access to communication with students
4.6 Challenges regarding myUnisa
4.6.1 Lack of student access to the internet
4.6.2 Lack of skill on the part of lecturers
Chapter 5
Summary, recommendations and conclusions

5.1 Introduction
5.2 Summary of the literature review
5.3 Summary of the empirical study
5.4 Synthesis of the research findings
5.5 Conclusions
5.6 Limitations of the study
5.7 Recommendations
5.8 Suggestions for further research
5.9 Conclusion

Reference list

Appendices:
Appendix A: Informed letter of consent
Appendix B: Research ethics clearance certificate
Appendix C: Interview guide
Appendix D: Transcription of interview

List of Figures:

Figure 1:
Community of inquiry framework (Garrison & Arbaugh 2007)

Figure 2:
Some of the most popular teaching and learning tools for 2012

Figure 3:
The most popular teaching and learning tool used in 2012 (resources read)
List of Tables:

Table 1:
Community of inquiry elements, categories and indicators
(Garrison & Arbaugh 2007) 36

Table 2:
Details of participants 53

Table 3:
Teaching and learning tools for 2012 (taken from myUnisa: 2013) 69

Table 4:
Totals of teaching and learning tools for 2012 (generated using the figures in Table 3 above) 70
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In the world in which we live today, information and communication technology (ICT) has proliferated in all spheres of society, including in the corporate, social and academic arenas. Within these arenas ICT has made noteworthy contributions. In the academic space, which is the focus of this study, ICT has made a significant contribution to the communication and consultation between students and higher education institution staff. One such example has been the emergence of learning management systems (LMSs) in higher education institutions, both locally and globally, with LMSs providing higher education institutions with several possibilities as regards facilitating the online teaching and learning process. Nevertheless, research has shown that there is underutilisation of LMSs throughout the world. The purpose of this study, therefore, was to investigate the utilisation of LMSs in an open and distance learning (ODL) institution in South Africa to ascertain whether they are being used to their full potential.

Key terms: Learning management systems (LMSs), utilisation, underutilisation, lecturers, internet, adult learning, and open and distance learning (ODL).
CHAPTER 1
OVERVIEW OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

“Any sufficiently advanced technology is indistinguishable from magic” (Arthur C. Clarke).

The revolution of information and communication technology (ICT) has transformed the world in which we live today, with ICT creating a platform for instant communication and networking across the globe. ICT has further revolutionised daily functioning in the corporate, social and academic spaces. In the academic space, which is the focus of this study, ICT has made its appearance both locally and globally. Moreover, significant changes are evident in the manner in which ICT has contributed to the academic space. Before the appearance of ICT, communication and consultation between lecturers and students occurred primarily by means of telephone, post and fax machine. However, today ICT has enabled communication and consultation to take place through a variety of mediums, namely, electronic mail (e-mail), satellite broadcast, video conferencing and learning management systems. Learning management systems (LMSs), in particular, have been widely adopted in institutions both locally and globally. In view of the fact that LMSs are the focus of this study the next paragraphs will discuss what LMSs actually are, their adoption in institutions of higher education and the manner in which LMSs are currently being used.

LMSs may be described as “enterprise-wide and internet-based systems, such as WebCT and Blackboard that integrate a wide range of pedagogical and course administration tools” (Coates, James & Baldwin 2005:19). This definition highlights the fact that LMSs are systems which are made accessible through the internet and which offer both teaching and administrative tools to assist institutions of higher education in the teaching and learning process. As mentioned in the first paragraph, LMSs have been
adopted both locally and globally. This adoption of LMSs by institutions of higher education is well documented in the literature. This is evident in the research conducted by Falvo and Johnson (2007:44) in the United States which has shown that “the most popular LMS used at colleges and universities in the United States was Blackboard”. Further research conducted by Christie and Jurado (2009:273) found that Australian universities, in the main, have bought commercial LMSs, renamed them and adapted them for their own purposes. Christie and Jurado also found that an LMS known as Ping Pong is being used in Sweden, while Norway is utilising the LMS Fronter. Research conducted by Unwin, Kleessen, Hollow, Williams, Oloo, Alwala, Mutimucuio, Eduardo and Muianga (2010:7) in Africa found that “Sakai/Vula is used by respondents almost exclusively in South Africa, while usage of Moodle and Blackboard/WebCT was distributed much more broadly across the continent”. These findings all confirm that institutions of higher education, both nationally and internationally, have adopted LMSs.

This adoption of LMSs is understandable in view of the fact that “high expectations about LMSs as a tool to facilitate flexible education, student centred methods and the creation of an effective learning environment are abundant in the literature” (Jurado & Pettersson: 2011). Flexible education, student-centred methods and the creation of an effective learning environment are goals with which any institution of higher education would want to be associated and it therefore makes sense that these institutions have adopted LMSs. However, it is worth noting that, despite the benefits which LMSs offer as regards making teaching more effective and the adoption of LMSs in institutions of higher education, both globally and locally, research from 2008 to 2011 has shown that the use of LMSs in higher education is underutilised.

The work of Sclater (2008:2) will be used as a starting point for this discussion. Sclater points out that “the communication features of LMSs are poorly utilised in most institutions, the LMSs being used primarily as storage facilities for lecture notes and PowerPoint presentations”. Research conducted by Christie and Jurado (2009:277) at a Swedish university found that “LMS is not being used to its full capacity at the School of Engineering at the University College of Boras”. Further research by Smithers (2009 in
Dobozy & Reynolds 2010:98) in Australia found that “LMS usage at Griffiths University and the University of Western Sydney confirms the view that LMS are primarily used as information repositories”.

Research conducted in the United States by Lonn and Teasley (2009:693) found that “the interactive tools available in an LMS were not as heavily used nor as highly rated, as were the tools that simply pushed out information from instructors to students”.

Further research by Unwin et al (2010:7) in Africa concluded that most e-learning in Africa focuses almost exclusively on the use of the Web to gather information and on e-mail for communicating with students; little real use seemed to be made of integrated LMSs. In particular, the research furthermore highlighted that, even amongst quite experienced users, most only actually use a relatively small number of the features available in their local LMSs.

This was also evident in a study conducted by Cant and Bothma (2011:120) on the use of the University of South Africa’s (Unisa) LMS, SAKAI, generally termed myUnisa in the School of Management Sciences. The study highlighted that “the majority of respondents in terms of the study (92.3%) indicated that lecturers used myUnisa either to a limited extent or hardly at all”.

At this point some discussion of the above research is needed. It emerges strongly from the research cited above that LMSs across the globe are being used in a minimal fashion and are clearly underutilised. Indeed, it would appear that LMSs are being used primarily as information repositories for students to access and there seems to be no real engagement between the lecturers and the students. In other words, there appears to be no real effort being made to take full advantage of the interactive tools that LMSs have to offer and, despite the possible advantages that they may offer, they are still being underutilised. Thus, the opinion of Coates et al (2005:23), who point out that “clearly there is something so seductive about LMSs that, despite their complexities and risks,
almost every university seems compelled to have one” seems to hold true considering the research conducted in this area.

It was the fact that LMSs have been adopted globally by universities and that they do hold significant potential, but are being utilised to a minimal degree, that prompted the researcher to conduct research in this area. In addition, the researcher of this study is currently employed at the University of South Africa (Unisa) as a lecturer and she has, through her experience and via informal conversations with her colleagues, gathered that it would appear that the LMS is being underutilised. Although the LMS offers various tools for both teaching and learning and administration, for example discussion forums, blogs, wikis, tools for uploading assessments, announcement tools, student lists and so on, the administrative tools seem to take precedence over the teaching and learning tools. Finally, the researcher has ascertained that there does not seem to be much research available on the use of LMSs in South Africa. It is, thus, anticipated that this research study will help to fill this gap.

Accordingly, the aim of this study was to find out exactly how the institutional LMS is being utilised by lectures at Unisa. In addition, the study proposed to make recommendations regarding the more effective use of institutional LMSs.

1.2 PROBLEM FORMULATION

From the discussions above and in view of the aim of the study, the main research question may be stated as follows:

How do lecturers use learning management systems at an ODL institution in South Africa?

The sub-questions emanating from this main question include the following:
What are the primary purposes for which learning management systems are utilised?

Why do lecturers utilise the learning management system at Unisa?

What challenges do lecturers experience in using the learning management system at Unisa?

What recommendations can be made regarding the more effective utilisation of learning management systems?

For the purposes of the study it was decided that it was necessary to ascertain the primary purposes for which LMSs may be used. This knowledge provided the researcher with good insight into the most common tools used in the LMS. It was also deemed important to ascertain the reasons why lecturers would utilise the LMS. This question helped the researcher to decide whether lecturers use LMSs because they have to or because they want to. The challenges facing the use of the LMS were an equally important issue to be addressed as this would provide the researcher with insights into the challenges which lecturers experience when using the LMS. The issue of possible recommendations emanating from the study was important because these recommendations may contribute to giving direction in terms of ways in which institutional LMS may be better utilised.

1.3 AIMS OF THE STUDY

The following main aim relevant to the study was identified:

- To determine how lecturers use learning management systems at an ODL institution in South Africa.

The following sub-aims relevant to the study were identified.
• To determine the primary purposes for which LMSs may be used.

• To determine the reasons why lecturers utilise the LMS at Unisa.

• To determine the challenges which lecturers experience in using the LMS at Unisa.

• To offer recommendations to lecturers and other relevant stakeholders of ways in which LMSs may be utilised more effectively.

1.4 THEORETICAL FRAMEWORK

This study employed the Community of Inquiry Framework (CoI) as its theoretical framework. The CoI, developed by Garrison, Anderson and Archer (2001), “was developed to guide the research and practice on online learning. It has become increasingly popular as a tool for conceptualising the online learning process” (Garrison & Arbaugh 2007:157–158). If one considers this it is apparent that this framework is directly related to the research and practice of online learning. It was, thus, appropriate for the topic of this study as the study aimed to investigate the utilisation of LMSs which, in turn, is related to online learning. Furthermore, the fact that it has become a popular framework in the field of online learning also prompted the researcher to use it for the purposes of this study.

This framework is premised on three presences which the proponents of this framework argue should exist in an online learning environment. These presences include the social presence, the cognitive presence and the teaching presence. According to this framework, these presences overlap. In an online learning environment, the creation of these presences is important in order to facilitate the learning process (Garrison & Arbaugh 2007). This framework will be discussed in more detail in chapter 2.
1.5 RESEARCH DESIGN AND METHODOLOGY

1.5.1 Literature study

A literature review relating to the topic under investigation was conducted. It was deemed important to review the relevant literature critically because, as indicated by McMillan and Schumacher (2006:76), this enables the researcher to

- define and limit the research problem
- place the study in a historical perspective
- avoid unintentional and unnecessary replication
- select promising methods and measures
- relate the findings to previous knowledge and suggest further research
- develop research hypotheses.

Thus, for the purposes of this study, the researcher engaged in a literature review and read literature related to the topic under investigation. Engaging in this literature review aided the researcher in building a body of knowledge on the topic. This was necessary as it helped the researcher to gain insights into LMSs in terms of their advantages and challenges as well as the future of their existence in institutions of higher education.

1.5.2 Empirical research

This study employed a qualitative approach to research. Denzin and Ryan (2007:580) state that

*qualitative researchers study things in their natural settings, attempting to make sense of or interpret these things in terms of the meanings people bring to them. Qualitative research involves the studied use and collection of a variety of empirical materials – case study, personal experience, introspection, life story, interview, and observational, historical,*
interactional and visual texts – which describe routine and problematic moments and meanings in individuals’ lives.

Qualitative research was deemed appropriate for this study as the researcher was interested in gaining an in-depth understanding from the lecturers themselves regarding the way in which they utilise the LMS by drawing from their personal experiences regarding the use of the LMS. The researcher in this study informed the study based on people’s experiences as opposed to relying only on the documented literature on the topic and, thus, qualitative research, whose purpose is to “explore deeply a specific phenomenon or experience” (Thomas & Magilvy 2011:152) was regarded as appropriate for this study.

“A qualitative phenomenological case study” (Henry, Casserly, Coady & Marshall 2008:10) was employed in this study. According to Lester (1999:1)

the purpose of the phenomenological approach is to illuminate the specific, to identify the phenomena through how they are perceived by the actors in a situation. In the human sphere this normally translates into gathering deep information and perceptions through inductive, qualitative methods such as interviews, discussions and participant observation, and representing it from the perspective of the research participants.

Naidu (2007:9) describes a case study as “an in-depth examination of an organization, a project, or a subject. In distance education, a case study may take the form of a report on how a programme is being offered to a particular group of students, or how a subject is offered using particular technologies”.

In light of this, a phenomenological case study was appropriate for this study, as this approach is premised on investigating phenomena from the perspective of the people who are experiencing the phenomena, while a case study implies investigating an aspect in an in-depth manner. Accordingly, a qualitative phenomenological case study was
regarded as suitable for this study, because the researcher selected a sample of people and conducted an in-depth investigation into their experiences of the topic in question.

1.5.2.1 Selection of participants

This study was limited to the College of Education at Unisa. The College of Education currently consists of two schools which include the School of Educational Studies and the School of Teacher Education. Each school consists of five departments. Lecturers were selected from the departments in the two schools and, thus, a total of ten lecturers were interviewed. In selecting the participants purposive sampling was used. The type of purposive sampling that was selected was snowball sampling. McMillan and Schumacher (2006:321) describe this technique as a type of sampling in terms of which “each successive participant or group is named by a preceding group or individual. Participant referrals are the basis for choosing a sample. The researcher develops a profile of the attributes or particular trait sought and asks each participant to suggest others who fit the profile or has the attribute”. Snowball sampling was deemed appropriate for this study as the researcher was not aware of which staff members in the College of Education would be able to assist in addressing the research questions. However, by means of snowball sampling, the researcher enquired from other staff members about which staff members they believed would be in a position to contribute to the study by answering the research questions. Thus, ten participants for the study were chosen in this way.

1.5.2.2 Data collection

For the purposes of this study, the case study relied primarily on the use of semi-structured interviews. McMillan and Schumacher (2006:204) state that “semi structured questions have no choices from which the respondent selects an answer. Rather, the question is phrased to allow for individual responses. It is an open-ended question but is fairly specific in its intent”. Semi-structured interviews were considered suitable for this research study because the nature of the open-ended questions provided the interviewee with freedom during the interview, although the aim of the questions ensured that the
research questions were answered. For the purposes of triangulation the researcher used document analysis (see chapter 3).

1.5.2.3 Data analysis

The data gathered in this research study was analysed using the process of inductive analysis. According to McMillan and Schumacher (2006:364), “[t]hrough the use of inductive analysis, categories and patterns emerge primarily from the data, rather than being imposed on them prior to collection”.

Inductive analysis was deemed suitable for this study as the researcher had not embarked upon the research journey with preconceived answers, but was rather looking for answers to the research questions as they emerged from the data that was collected.

1.5.3 Ethical measures

For purposes of the study the researcher obtained informed consent from the participants regarding their participation in the research. According to Israel and Hay (2006:61), “[i]nformed consent implies two related activities: participants need first to comprehend and, second, to agree voluntarily to the nature of the research and their role within it”. In order to satisfy these two activities as put forward by Israel and Hay, the researcher clearly specified in the informed letter of consent (see Appendix A) what the research was about, while participants had to agree voluntarily to take part in the research. The informed letter of consent also highlighted that the anonymity of all the participants in the research study would be guaranteed. Walford (2005:84) maintains that, in research, anonymity means that information about any individual or research site is not included in the final document. This prevents both the individual and the research site from being identified. In this study the researcher also applied for ethical clearance from Unisa (see Appendix B) as Unisa staff members were participants in the study.
1.5.4 Trustworthiness (reliability and validity)

According to Thomas and Magilvy (2011:151), “
[r]igor in qualitative terms is the best way to establish trust or confidence in the findings or results of a research study. Rigor is useful for establishing consistency of the study methods over time and provides an accurate representation of the population studied”. The researcher in this study established trustworthiness by striving for rigour so as to ensure that the results would be worth paying attention to. In order to establish rigour in the study the researcher used the model of trustworthiness as proposed by Lincoln and Guba (in Golafshani 2003:601): “This model addresses four components of trustworthiness that are relevant to qualitative research and include: (a) truth-value (credibility), (b) applicability (transferability), (c) consistency (dependability) and (d) neutrality (conformability).” This model and its four components are explored and described in more detail in chapter 3 of the study.

1.5 CLARIFICATION OF CONCEPTS IN THE CONTEXT OF THE STUDY

The concepts below are defined within the context of this study.

*Blogosphere:* “The most commonly used term for the space of blogs as a whole” (Brooks & Montanez 2006:625).

*Blogs:* Make it possible for large numbers of people to disseminate their opinions quickly and easily to a wide audience through the World Wide Web (Brooks & Montanez 2006:625).

*Information and communication technology (ICT):* “Information and Communication Technology relates to those technologies that are used for accessing, gathering, manipulating and presenting or communicating information. The technologies could include hardware (e.g. computers and other devices), software applications; and
connectivity (e.g. access to the Internet, local networking infrastructure, and videoconferencing” (Lloyd 2005).

**Internet**: “The Internet is a global network of computers. Every computer that is connected to the Internet is considered a part of that network. This means even your home computer. It's all a matter of degrees, you connect to your ISP’s network, then your ISP connects to a larger network and so on” (What is the internet, n.d.).

**Online learning**: Access to learning experiences via the use of some technology (Moore, Dickson-Deane & Galyen 2011:130).

**Learning management systems (LMSs)**: “An LMS is the infrastructure that delivers and manages instructional content, identifies and assesses individual and organizational learning or training goals, tracks the progress towards meeting those goals, and collects and presents data for supervising the learning process of an organization as a whole” (Szabo & Flesher 2002 in Watson & Watson 2007:28).

**Open distance learning**: “A multi-dimensional concept aimed at bridging the time, geographical, economic, social, educational and communication distance between student and institution, student and academics, student and courseware and students and peers. Open distance learning focuses on removing barriers to access learning, flexibility of learning provision, student-centeredness, supporting students and constructing learning programmes with the expectation that students can succeed” (UNISA’S Open Distance Learning Policy 2008:2).
1.6 DIVISION OF CHAPTERS

This study consists of five chapters which are structured as follows:

Chapter 1

This chapter contains the introduction/background of the study. The introduction and background highlight both the current use of LMSs across the globe and also the reasons why research regarding the use of LMSs is necessary. Based on this need for research, the problem statement and sub-research questions are stated. This is followed by the formulation of the aims that this study intends to realise and also a discussion of the methodology the study employed in order to answer the research questions and achieve its aims. The chapter concludes with a description of important concepts related to the study.

Chapter 2

This chapter provides a review of relevant literature and discusses the theoretical framework used for the study. The chapter begins by providing an overview of the theoretical framework that was employed in the study and provides a justification for why this theoretical framework was deemed appropriate for the study. The chapter continues with an overview of LMSs including the primary purposes for which LMSs may be used and the advantages they offer. The researcher then pays attention to the challenges facing the use of LMSs in education and discusses the relationship between LMSs and ODL. The chapter concludes with a discussion about the debate regarding the future of LMSs.

Chapter 3

This chapter describes the research design used in the study. The chapter begins with a justification of why empirical research was deemed appropriate for this study. This is
followed by a discussion of the research design that was employed in the study. The research methods as regards the selection of the participants and the data collection and data analysis are then described. The manner in which the researcher ensured the validity and reliability of the study is then highlighted. The chapter concludes with a discussion of the manner in which ethical measures were ensured in the study.

**Chapter 4**

This chapter presents the data itself as well as the data analysis. The main themes and the sub-themes as they emerged from the data gathered during the interviews are discussed. The researcher discusses these themes as they relate to the questions which were asked during the interviews. In addition, within each theme, the researcher refers to quotations from the participants in order to justify the various themes. The chapter also discusses the document analysis that was used as a means of triangulation for this study.

**Chapter 5**

In this final chapter the summary, recommendations and conclusions of the study are discussed. The chapter begins by providing a summary of the literature review. The empirical study is then discussed and a synthesis of the research findings provided. The conclusions of the study, as drawn from the answers to the research questions, are then presented. The limitations of the study are then acknowledged. The researcher concludes the chapter by providing suggestions for further research.

**1.7 CONCLUSION**

This chapter discusses the foundation on which the study was based. The study first investigated LMSs in institutions of higher education as documented in the literature today and highlighted the fact that, despite their presence, LMSs are still underutilised. Based on the clear need to conduct further research into the utilisation of LMSs the
researcher developed the research questions that this study needed to answer and the aims that this study needed to realise. This was followed by a discussion of the theoretical framework employed in the study and the reasons why this theoretical framework was considered appropriate for the study. The research design and methodology used for this study in terms of the literature study, the empirical research, the selection of the participants and the data collection and data analysis were briefly described. The chapter concluded with a discussion of the ethical measures employed in this study as well as a clarification of the relevant concepts related to the study.

Chapter 2 contains a literature review on the topic under investigation.
CHAPTER 2
REVIEW OF THE LITERATURE

2.1 INTRODUCTION

The previous chapter provided an overview and background to the study. Various aspects pertaining to the importance of this study and the way in which the study will be conducted were discussed. This chapter commences with a discussion of the theoretical framework of the study. This is followed by a brief overview of LMSs, which is aimed at orientating the reader and also providing the reader with a holistic overview of LMSs. A discussion of the primary purposes for which LMSs may be used as documented in the literature is then provided. The challenges regarding the utilisation of LMSs are then discussed. The researcher also discusses the relationship between ODL and LMSs as she felt that, in view of the fact that the study was taking place in the context of ODL, it is extremely important to establish both the relationship between ODL and LMSs and the way in which these two phenomena relate to each other. The chapter concludes with a brief explanation of the current debate regarding the future of LMSs.

2.2 A BRIEF OVERVIEW OF LEARNING MANAGEMENT SYSTEMS (LMSs)

2.2.1 What are LMSs?

The previous paragraphs discussed the theoretical framework to be employed in this study on the utilisation of LMSs. A discussion on what LMSs actually are is presented below.

Watson and Watson (2007:28) describe an LMS as

the framework that handles all aspects of the learning process. It is the infrastructure that delivers and manages instructional content, identifies
and assesses individual and organizational learning or training goals, tracks the progress towards meeting those goals, and collects and presents data for supervising the learning process of an organization as a whole.

In addition, an LMS “handles course registration and administration, skills gap analysis, tracking and reporting”.

According to Coates et al (2005:20), LMSs are sometimes referred to as

‘learning platforms’, ‘distributed learning systems’, ‘course management systems’, ‘content management systems’, ‘portals’, and ‘instructional management systems’, combine a range of course or subject management and pedagogical tools to provide a means of designing, building and delivering online learning environments. LMSs are scalable systems which can be used to support an entire university’s teaching and learning programmes.

Aydin and Tirkes (2010:593) describe LMSs as “software that automates the administration of training events. All learning management systems manage the log-in of registered users, manage course catalogues, record data from learners, and provide reports to management”.

Based on the three definitions cited above LMSs, in the context of this study, will be taken to be the following:

LMSs are a software support tool that serves both the academic and administrative functions of an institution of higher education. Academic functions include, among others, the uploading and delivering of course material and assessments, including the use of pedagogical tools such as discussions forums and blogs to facilitate interactive dialogue between student and lecturer. The administrative functions include the tracking and
monitoring of achievement goals, presenting important data to management and assisting in important functions such as uploading course calendars, students’ marks and so forth.

It is clear from the above that, as a tool, an LMS may be extremely useful for institutions of higher education in terms of facilitating both the administrative and academic functions. These functions are crucial in the functioning of any institution and, therefore, the LMS becomes a useful tool.

2.2.2 LMSs available in the market today

There are several LMSs available in the market. Al-Busaidi and Al-Shihi (2010:3) list the following LMSs: “ATutor, Moodle, WebCT, Learn.com, Joomla LM, Krawler LMS and Blackboard. The mostly used applications are WebCT, Moodle and Blackboard.” According to Coates et al (2005:21), commercial LMSs include “Top Class/First class, NextEd, WebCT Vista, Blackboard and Learning Space from Lotus”. They go on to say that most LMS were “commercialised after originally being university development projects, rather than as direct results of business development activities”.

It is, thus, clear that there are various LMSs available in the market. However, this may make it difficult to choose the correct one. Al-Busaidi and Al-Shihi (2010:3) offer advice when they state that

despite vendors’ assortment, all LMS solutions provide several essential tools for instructors. For example, Moodle offers instructors the ability to give online assignments, lessons, quizzes and surveys. It also incorporates essential Web 2.0 tools like blogs where different users can have their own blogs (journals), and wikis which encourages teamwork among students to develop a collaborative class product. On the other hand, Blackboard offers similar but more process-oriented LMS tools such as Course Delivery application which includes a grade centre to automate
the grading process as well as performance dashboard to track students’ progress.

This advice makes it clear that, despite the fact that there are a variety of vendors from whom to choose regarding LMSs, the majority of the LMSs available offer the essential tools for teaching and learning as discussed above.

Coates et al (2005:20) also offer further guidance in this regard by highlighting the specifications to which LMSs should adhere, namely:

- asynchronous and synchronous communication (announcement areas, e-mail, chat, list servers, instant messaging and discussion forums)
- content development and delivery (learning resources, development of learning object repositories and links to internet resources)
- summative assessment (submission, multiple choice testing, collaborative work and feedback), and
- class and user management (registering, enrolling, displaying timetables, managing student activities and electronic office hours).

These specifications may be extremely helpful in informing institutions of higher education about the requirements for LMSs. It should, however, be remembered that “tools themselves do not determine whether learning happens, rather it depends on how these technologies are used by instructors and students” (Lonn, Teasley & Krumm 2011:642). This statement highlights the fact that the tools are not an end in themselves as regards learning, but that the way in which these tools are used is also important.

2.2.3 The presence of LMSs today

LMSs have become extremely popular and have proliferated in higher education throughout the world. Lonn et al (2011:642) report that LMSs have become extremely popular throughout the United States, South America, Australia, Asia and Europe. According to Johnson, Corazzini and Shaw (2011:6), “well over 90% of distance
education programs currently use a learning management system”. Al-Busaidi and Al-Shihi (2010:2) highlight the fact that “e-learning and LMS are very promising to both corporations and educational institutions worldwide and in the Middle East”. In South Africa, Finland, the Netherlands and the United States of America between 55 and 62% of institutions use either Blackboard or WebCT (Coates et al 2005:21). This information, which was extracted from the documented literature, clearly indicates that the adoption and use of LMSs are not limited to either one region or one country but, rather, that LMSs are being used throughout the world and have become part of the architecture of many institutions of higher education.

2.2.4 The LMS currently in use at Unisa

At Unisa, which is the focus of this study, the LMS currently being used is based on the Sakai community source technology. According to Ganjalizadeh and Molina (2006:1), the Sakai Project began in January 2004 as a community source software development effort to design, build and deploy a collaboration and learning environment (CLE) for higher education. Sakai has its origins at both the University of Michigan and Indiana University. Both of these universities independently began open source efforts to duplicate and improve the functionality of their existing course management systems. MIT and Stanford then joined in this effort. These four institutions, together with the Open Knowledge Initiative and the uPortal consortium, formed the Sakai Project with the help of a grant from the Mellon Foundation. According to the information available on the Sakai website, the universities in South Africa that are listed as part of the Sakai Community include the University of Cape Town and Unisa.

As an LMS Sakai offers many features to its users. According to Simonson (2007:8), Sakai incorporates most, if not all, the features common to LMSs, including the following:

- course material distribution
- grade books
- discussion areas
• chat rooms
• testing
• assignment drop boxes
• announcement areas
• e-mail systems
• forums
• presentation systems
• a variety of teaching tools such as syllabus posting and content delivery.

This information highlights the fact that Sakai is an LMS that offers the common tools of LMSs. It allows lecturers to upload course material that students can access, while it also facilitates the process of assessment in enabling lecturers to upload assessments, which students can retrieve, complete and then upload again. Discussion areas also allow for lecturers and students to engage with each other in an environment in which teaching and learning can take place. It is, thus, evident that Sakai does offer the necessary tools required of an LMS.

In the specific context of Unisa, the LMS used and which is based on Sakai is generally known as myUnisa and was launched in January 2006. The researcher conducted some research into myUnisa and found that

it is continually customised to provide students with a single point of reference for primarily academic, but also support and administrative services. Many tools are available, ranging from simple document uploading facilities and resource provisioning, to sophisticated collaborative tools (discussion forums, wikis and blogs) and online assessment tools (assignment submission, automated online assessment and e-portfolios). The infrastructure furthermore provides the capability to link academic staff and students with tutors, irrespective of their geographical distribution of time zone (Unisa2010).
The above reference highlights that myUnisa includes many of the tools needed for teaching and learning and offers both academic and administrative tools. The academic tools allow for both the teaching and learning aspects to be facilitated, including assessments and course content, while the administrative tools assist in aspects such as posting class schedules, examination dates and venues and so forth. Thus, in simple terms, myUnisa offers the necessary tools to support online teaching and learning.

2.3 THE PRIMARY PURPOSES FOR WHICH LMSs MAY BE USED FOR AND THE ADVANTAGES THAT LMSs OFFER

Now that an overview of LMSs has been provided it is both important and necessary to identify the purposes for which LMSs can be used.

Through reading the documented literature the researcher realised that there were several prominent categories regarding the primary purposes of LMSs. These categories include: support tool for teaching and learning, access to information and immediate access to communication with students and administration. An explanation of these categories is provided below.

2.3.1 Category one: Support tool for teaching and learning

Several researchers (Simonson 2007; Aydin & Tirkes 2010 and Despotovic-Zrakic, Markovic, Bogdanovic, Barac & Krco 2012), who have written about LMSs, have reported that they have the potential to act as a support tool to improve learning and help learners to attain their learning outcomes. Such an example is evident in the work of Aydin and Tirkes (2010), who report that “many organisations are using LMS to support and to improve learning within their institutions”.

According to Tu, Sujo-Montes, Yen, Chan and Blocher (2012:13), “learning management systems traditionally provide structures to guide online learners to achieve their learning goals”.

22
Anderson (2008:17) maintains that “if designed properly, online learning systems can be used to determine learners’ needs and current level of expertise and to assign appropriate materials for learners to select from, to achieve their desired learning outcomes”. Al-Busaidi and Al-Shihi (2010) highlight that “LMS includes several tools that provide academic and training institutions with efficient and effective means to support distance education and supplement their traditional way of teaching”.

These writers cited above are clearly in agreement about many aspects of LMSs and are all of the opinion that LMSs serve as a support tool to help learners achieve their learning goals. Learning goals are the end point of the learning experience and they indicate to students whether they have been successful in their learning endeavours or not. However, before students are able to attain their learning goals they have to undergo a series of learning activities and assessments and it is in this area that the LMS may play a role. LMSs offer various tools that can serve as support tools in helping students to attain their learning goals. Students can at any given point, access information regarding their course, including Power Point presentations, lecture notes, learning activities and so forth. This flexibility and accessibility in important course information is useful for students and may guide them toward achieving their learning goals. Being immediately available LMSs also lessen the delays that students may experience in accessing important information and material about their courses.

2.3.2 Category two: Access to information

The second category that was identified from the literature on the purposes and advantages of LMSs pertains to the fact that LMSs incorporate the tools that can be used to upload, access and share information. Thus, lecturers are able to upload any material they wish related to their courses, which students may access at any given point.

The first example of this is evident in the work of Despotovic-Zrakic et al (2012: 326), who suggest that “LMS are powerful integrated systems that support a number of
activities performed by teachers and students during the e-learning process. Among other activities teachers use an LMS to develop web-based course notes and quizzes”. Cuéllar, Delgado and Pegalajar (2011:2260) are clearly in agreement with this statement when they highlight that “today most LMSs allow us to share documents, media, forums, blogs, bookmarks and portfolios”. On the other hand, Lonn and Teasley (2009:686) are of the opinion that “[m]ost LMSs are used for the distribution, management and retrieval of course materials”.

It is, thus, clear that LMSs offer tools that allow for the accessing and sharing of information and materials, with lecturers being able to upload a variety of materials related to their course that they may then request their students to access. The advantage is that the materials are immediately available for students to access.

2.3.3 **Category three: Immediate access to communication with students**

The third category that was identified refers to the ability of LMSs to provide both lecturers and students with immediate access to communication with each other. This is evident in the work of Lonn and Teasley (2009:686), who state that an LMS “supports interaction between students and instructors and among students”. Vovides, Sanchez-Alonso, Mitropoulou and Nickmans (2007:64) agree with this statement when they maintain that LMSs “offer tools for students to participate in synchronous and asynchronous interaction with each other and with the instructor”.

The above references highlight the fact that tools such as discussion forums enable students to form communication networks with both their lecturers and their peers. This communication with their lecturers and fellow students can, in turn, provide communication on important aspects regarding their course.
2.3.4 Category four: Administration

Administration was identified as the fourth and final category. Administration is an important part of the functioning of any higher education institution and it is this administration that facilitates and coordinates key aspects such as student records, student assessment, course and examination information and so forth. LMSs have been documented in the literature as having the potential to facilitate the administrative function. This is extremely useful in institutions as LMSs may lessen the administrative burden.

The role of LMSs in administration is evident in the work of Simonson (2007:7), who states that LMSs assist

in the management of educational courses for students, especially by helping teachers and learners with course administration. It allows teachers to manage their classes, assignments activities, quizzes and tests, resources and more in an accessible online environment. Announcements about class can be posted and a calendar of activities can be made available.

Vovides et al (2007:66) agree with this in maintaining that LMSs are able to provide “online access to registration, records, schedules, reports, etc”. Finally, Aydin and Tirkes (2010:593) also support this argument when they report that “all LMSs manage the log-in of registered users, manage course catalogues, record data from learners, and provide reports to management”.

At this point it is necessary to reflect further on the work of the writers cited above. These writers all clearly highlight the fact that LMSs offer useful tools that can assist higher education institutions in the administrative aspects of their work, including managing activities related to courses such as assignments, examinations and so forth. Lecturers are able to post information about various aspects of assignments and examinations
related to due dates, mark allocation, aspects of a course on which to focus in order to complete an assessment, and so forth. Lecturers are also able to outline the course activities and assessments for the entire semester or year. This helps students to manage their time accordingly and to keep abreast of their work schedules.

However, LMSs are not only useful in providing administrative assistance to lecturers but they can also offer support to other stakeholders in the institution, with management and other staff members employed in various capacities, such as administration, assessments and so forth within the university, being provided with important information through LMSs. Such information may include, among other things, records of the number of students registered for a course, biographical information of students and the throughput rates of students. This type of information is important as it guides the strategic planning and coordination of the university in question. It is, thus, clear that LMSs are able to ease the administrative burden in institutions of higher education by facilitating and coordinating some of the administrative tasks.

It may, thus, be concluded from the literature documented that LMSs can be used for a range of purposes and that they offer numerous advantages. Nevertheless, there are still challenges regarding the use of LMSs.

2.4 CHALLENGES REGARDING THE USE OF LMSs

While the use of LMSs and the inherent advantages they offer afford significant potential to institutions of higher education, it is also necessary to adopt a critical stance and to consider some challenges regarding the use of technology in education. Njenga and Fourie (2010:200) describe the term technopositivist ideology, which “is a compulsory enthusiasm about technology that is being created, propagated and channelled repeatedly by the people who stand to gain either economically, socially, politically or otherwise in due disregard of the trade-offs associated with the technology to the target audience”. Thus, in an effort to be critical and to avoid blindly joining adherents of the
technopositivist ideology, this study will aim to highlight the challenges that can arise when LMSs are implemented as documented in the literature.

The literature makes reference to studies which have been conducted on the use of LMSs and highlights the challenges that may be encountered. For example, Christie and Jurado (2009:276) found that “teachers do not have the time or motivation to become experts in how to use an LMS”. A study conducted by Cant and Bothma (2011:121), on the other hand, found that the main reasons why lecturers make so little use of LMSs were related to “fear in the use of technology and limited exposure and understanding of technology, a lack of hands on exposure to the LMS, shortage of time available to use the LMS and lecturers who see no value in using the LMS”. Earlier research by Morgan (2003) highlighted that faculties had reduced their use of the LMS because they felt the technology was “time consuming, inflexible and difficult to use”.

It is clear that time constraints play a significant role in discouraging lecturers from making better use of LMSs, as do the difficulties which lecturers experience when using the LMS. In addition, it would appear that there is an element of fear among certain lecturers as regards the use of LMSs, while a lack of motivation and the fact that lecturers did not see any value in using LMSs may also play a role in the apparent reluctance on the part of lecturers to use LMSs.

2.5 WHAT SHOULD LMSs BE DOING?

In view of the challenges that lecturers appear to experience as regards the use of LMSs, as well as the underutilisation of LMSs (see sections 1.1 and 2.5), the researcher deemed it necessary to find some kind of benchmark for what LMSs should be doing. Kim and Leet (2008:285) offered some assistance in this when they state that an LMS should be a means to help teachers and learners to achieve “instructional goals through problem-solving teams, question and answer sessions, or online simulations, rather than be just another tool that merely provides users with the convenience of sending e-mail, distributing hand outs or keeping an online grade book".
Rubin, Fernandes, Avgerinou and Moore (2010:82) are of a similar opinion when they state that an effective LMS must serve as a support for active engagement and meaningful connections between segments of the course in question. Furthermore, the LMS should help to create easy communication feedback on work that has been presented in class discussions. They go on to say that discussion forums are the primary tool with which to create meaningful communication among students and staff. Vovides et al (2007:64) maintain that the e-learning environments created with the help of LMSs “should encourage the application of learners’ metacognitive skills by promoting learners to plan, attend to relevant content and to monitor and evaluate their learning”.

If the thoughts of these writers are analysed it becomes apparent that there are many commonalities. Interaction and engagement on the part of lecturers and students is clearly an important function of an LMS and, thus, LMSs should be utilised in such a way that they enable students and lecturers to hold interactive discussions about the course concerned. This, in turn, will allow for the students to grapple and engage with the course content and gain a better insight into the content of the course. In addition, lecturers should use the tools offered by the LMS to post questions, informal assignments, quizzes and so forth that will challenge the minds of the students and provide them with the opportunity to become immersed in problem-solving activities. By engaging in these problem-solving activities students will be able to consult with other students and participate in what McLoughlin (2002:149) calls “self-regulated learning and social interaction”. Self-regulated learning is a common concept associated with adult learning with the relevant literature attesting to this fact. Such an example is evident in the self-directed learning theory which is described as: “a self-initiated process of learning that stresses the ability of individuals to plan and manage their own learning, an attribute or characteristic of learners with personal autonomy as its hallmark, and a way of organising instruction in formal settings that allows for greater learner control” (Cafarella 1993:25). Knowles (1975 in Garrison 1997:19) agrees with this view in stating that self-directed learning is “a basic human competence—the ability to learn on one’s own”.

28
As mentioned earlier (Rubin et al 2010; Vovides et al 2007), LMSs offer various tools that may be used to facilitate self-regulated learning. The tools available in the LMS allow lecturers to initiate question and answer sessions and group students into problem-solving teams, while discussion forums may also be used to create active engagement among the students themselves, as well as between students and lecturers. This style of learning fits in with the theory of self-regulated learning in that learners are enabled to manage their own learning by participating in problem-solving teams, engaging in discussion forums and participating in question and answers sessions. These are just a few examples of the way in which LMSs can be used as a tool to promote self-regulated learning among students.

The discussion above highlights exactly what LMSs should be offering. It reveals that, in essence, the LMS should be implemented in such a way that students participate in self-regulated learning, problem solving and critical thinking—the hallmarks of adult learning. This, in turn, further emphasises the need for research into ways in which LMSs may be fully utilised. Adult learning and independence are especially important in ODL as students are separated from their lectures and, therefore, much of their learning happens independently. In view of the fact that the research for this study will take place in an ODL institution the researcher considered it necessary to discuss the relationship between LMSs and ODL.

### 2.6 THE RELATIONSHIP BETWEEN OPEN AND DISTANCE LEARNING (ODL) AND LMSs

The University of South Africa’s (Unisa) Open Distance Learning Policy (2008:2) describes ODL as “a multi-dimensional concept aimed at bridging the time, geographical, economic, social, educational and communication distance between student and institution, student and academics, student and courseware and students and peers”. The policy further states that open distance learning focuses on removing barriers to accessing learning, promotes both flexibility in the provision of learning and student-
centeredness, supports students and constructs learning programmes with the expectation that students have the capacity to succeed.

The first element that is evident in this definition is the fact that ODL aims to remove distances of any kind. These distances are not limited to physical distances but refer to any distance, ranging from economic distances to social distances, with the removal of these distances enabling students to come closer to reaching their learning goals. ODL also aims to remove barriers that may interfere with the progress of the student. Flexibility and access to learning are also important aspects of the ODL agenda. The rationale behind removing these distances and barriers is so that students are enabled to achieve what they have come to the institution to achieve, namely, obtaining a qualification. In short, the crux of ODL may be regarded as opening up access to learning for students.

It is with this in mind that the relationship between ODL and LMSs starts to become apparent. If students have access to the internet they are able to access the LMS immediately. Students are able to access administrative and academic information on their courses, as well as their lecturers and their fellow peers, instantaneously and this in itself removes barriers of space and time. Students no longer have to rely on the post and the telephone to obtain information regarding their courses, with the LMS enabling students to access their learning at anytime and from anywhere. This is important in distance learning as, according to Anderson (2008:222), distance learning “is often perceived and experienced as a lonely way to learn”. The LMS can create a community among students and lecturers in which students do not have to feel isolated in their learning experience.

Through the effective use of technology via the LMS, distance education no longer has to be so “distant” and, instead, technology is able to create a platform from which students and lecturers collaborate, communicate, network and so on. In this way the learning experience becomes more meaningful, interesting and interactive. However, while the LMS has significant potential as regards distance education, there has been a debate in
the blogosphere regarding the future of the LMS. This will be discussed in the next paragraph.

2.7 THE DEBATE SURROUNDING THE FUTURE OF LMSs: A THOUGHT-PROVOKING ARGUMENT

According to Sclater (2008:2), there is a debate currently taking place in the blogosphere regarding the use and future of LMSs. This debate centres on the use of Personal Learning Environments (PLEs) such as social networking sites, wikis and blogs as opposed to LMSs. Proponents of PLEs argue that students use and are exposed to social networking sites on a regular basis. These sites, they argue, allow for customisation and ownership, which are currently not possible through the use of an LMS. Sclater (2008:2-3) highlights that the term LMS suggests disempowerment. It may, thus, be seen as an attempt to manage and control the activities of the students. According to Sclater (2008:2-3), it has also been suggested that it is not possible for learning providers to compete with the developments that are occurring so rapidly elsewhere on the internet. He suggests that students will find LMSs and their tools inferior to those they are already using freely on the internet – both in their look and feel and in the amount of functionality offered.

Tu et al (2012:13) concur with Sclater and also argue against the use of the LMS. They state that “LMSs are incapable of delivering effective online learning”. They furthermore argue that typical online learning delivered within an LMS requires fewer learner-centred skills and creates constraints as regards learning environments and learning continuity.

The opinions of these writers bring to the fore the challenges that they associate with LMSs. These challenges include disempowerment, management of students, restrictive tools and the creation of a constraining environment for students. A critical evaluation suggests that they regard LMSs as being inflexible in nature. They suggest that the LMS creates an environment that provides students with limited freedom because students are given access to a limited number of tools only with which they may interact. They also
believe that the tools offered within the LMS are less sophisticated in comparison to other tools that are readily available and accessible to students on PLEs. In addition, the aspect of learning is also an issue of concern. In view of the fact that LMSs offer a limited range of tools, students may become accustomed to using this range of tools and they will, thus, not be challenged in the LMS environment. In short, what these writers are suggesting is that LMSs may be regarded as rigid and inflexible in nature.

However, although these writers indicate their stance clearly, there are other writers who are in favour of the LMS. Milligan (in Sclater 2008:7) argues that the LMS “is a conservative technology for managing groups, providing tools, and delivering content”. Milligan goes on to say that

LMSs enable institutions to ensure a consistency of service for students and backup facilities, particularly for e-portfolio content and lifelong learning records. In addition, institutions have moral and legal responsibilities for accessibility of learning content and services; it is difficult to ensure that these are met adequately unless systems are centrally hosted (Milligan in Sclater 2008:7).

Kelly (in Sclater 2008:7) concurs with Milligan is declaring that “LMS allows institutions to protect minors against unsuitable materials and permit the removal of copyright-infringing materials and defamatory, racist, or otherwise illegal blog entries”.

Thus, the opinions of the writers cited in the previous paragraph highlight the fact that the LMS is the safer option for education and, while it may be considered a more “closed” option than a PLE, it does create positive boundaries while protecting students from unsuitable information and communication in the learning environment. It also ensures that only those students who are registered for a module are able to access the module. In addition, LMSs ensure that only material relevant to the module is uploaded. On the other hand, with a PLE, irrelevant and sometimes inappropriate information may be uploaded by both students registered for a module and students not registered for the
module. The LMS also creates a safer and more reliable environment for students than do PLEs. In addition, an LMS provides the assurance that students are accessing only that material which will help them regarding the course for which they are registered, instead of their being bombarded by a vast amount of material.

Furthermore, as stated by Milligan (in Sclater 2008:7), institutions of higher education have both moral and legal responsibilities toward their students. They offer the programmes for which the student has registered and payment is made to them. When students make these payments they do so with the understanding that the institution of higher education will make the relevant learning material, activities, assessments and so forth available to them. It is, therefore, the responsibility of the institution concerned to ensure that students are able to access information and material relevant to their course in a reliable and consistent manner.

However, this becomes difficult with a PLE because, unlike an LMS, a PLE is not centrally hosted and, therefore, issues such as the reliability of the system may arise. This unreliability may, in turn, create barriers to the students' learning. It is the opinion of the researcher that LMSs are to be preferred to PLEs because an LMS creates a platform for standardisation and structure, which is important. Students all have common learning goals that they wish to attain and the LMS may serve as a useful tool in that it will provide the same content and tools that all students can access in attaining the same learning goals. Thus, the researcher of this study argues in favour of the use of the LMS because it is still currently used by institutions of higher education globally and it also offers numerous advantages as discussed in section 2.4. The researcher, therefore, concurs with Lonn and Teasley (2009:696) who state that, as LMSs continue to evolve and gain popularity, further research will be needed to help instructors and students identify the most effective ways in which to use these technologies in order to improve teaching and learning in higher education.
The community of inquiry (CoI) framework was used as a lens for the study. This lens was regarded as important because it provided insight into how the topic in question could be investigated, looked at, perceived, and so on. The CoI is discussed below.

The CoI framework, developed by Garrison et al (2001), was devised to guide the research into and practice of online learning. It has since become increasingly popular as a tool for conceptualising the online learning process (Garrison & Arbaugh 2007:157-8). The CoI is based on the concept of creating a sense of community for successful learning in higher education. According to Garrison and Arbaugh (2007:158), “higher education has consistently viewed community as essential to support collaborative learning and discourse associated with higher levels of learning. Notwithstanding the potential for disconnectedness in online learning communities, there is evidence that a sense of community can be created online”. Thus, the notion of creating a community in higher education among the lecturers and students is clearly an important facet of the learning process. Garrison and Arbaugh (2007) argue that this sense of community is not limited to face-to-face situations, but may also be created in online learning environments. Using this concept as a benchmark for learning, the CoI framework appears to be an appropriate framework for referring to in the establishment of a sense of community among lecturers and students.

The CoI framework proposes that this sense of community may be created through the establishment of three presences, namely, “social, teaching and cognitive presence” (Garrison & Arbaugh 2007:158). The existence of these presences is important for teaching and learning in an online environment and they overlap with each other. Each of these presences is, in turn, associated with certain categories and indicators that distinguish one presence from the others and gives meaning to the presence in question. For example, open communication and group cohesion are categories associated with social presence, while exploration and integration are categories associated with cognitive presence.
It is clear from Figure 1 below that the centre of the online learning experience lies in the integration and overlapping of the three presences.

**Figure 1: Community of inquiry framework (Garrison & Arbaugh 2007)**

Table 1 below presents the three presences, as well as the categories which make up those presences and also examples of indicators that may belong to each presence respectively.
Table 1: Community of inquiry elements, categories and indicators (Garrison & Arbaugh 2007)

<table>
<thead>
<tr>
<th>ELEMENTS</th>
<th>CATEGORIES</th>
<th>INDICATORS (examples only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social presence</td>
<td>Open communication</td>
<td>Risk-free expression</td>
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<tr>
<td></td>
<td>Group cohesion</td>
<td>Encourage collaboration</td>
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<tr>
<td></td>
<td>Affective expression</td>
<td>Emotions</td>
</tr>
<tr>
<td>Cognitive presence</td>
<td>Triggering event</td>
<td>Sense of puzzlement</td>
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<tr>
<td></td>
<td>Exploration</td>
<td>Information exchange</td>
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<tr>
<td></td>
<td>Integration</td>
<td>Connecting ideas</td>
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<td></td>
<td>Resolution</td>
<td>Apply new ideas</td>
</tr>
<tr>
<td>Teaching presence</td>
<td>Design and organisation</td>
<td>Setting curriculum and methods</td>
</tr>
<tr>
<td></td>
<td>Facilitating discourse</td>
<td>Sharing personal meaning</td>
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<tr>
<td></td>
<td>Direct instruction</td>
<td>Focusing discussion</td>
</tr>
</tbody>
</table>

In view of the fact that the CoI is premised on these three presences the researcher deemed it appropriate to provide a brief description of each presence.

2.8.1 Social presence

“Social presence in online learning has been described as the ability of learners to project themselves socially and emotionally, thereby being perceived as real people in mediated communication” (Gunawardena & Zittle; Short, Williams & Christie in Garrison & Arbaugh 2007:159).
If the above definition of social presence is evaluated in the context of online learning it becomes apparent that social presence refers to the ability of students to make themselves visible and to communicate with other students as well as their lecturer in the online learning environment.

Garrison and Arbaugh (2007:160) conclude by stating that “research suggests that, although social presence alone will not ensure the development of critical discourse in online learning, it is extremely difficult for such discourse to develop without a foundation of social presence”. This statement highlights the fact that, although social presence is not a guarantee that good, interactive discourse will occur in online learning, it is, nevertheless, an important factor in facilitating effective online learning.

### 2.8.2 Cognitive presence

Garrison et al (2001:7) describe cognitive presence as “a manifestation of practical inquiry. Cognitive presence is defined as the extent to which learners are able to construct and confirm meaning through sustained discourse in a critical community of inquiry. Cognitive presence reflects higher-order knowledge acquisition and application”. If the above definition is evaluated it becomes clear that cognitive presence may be attained when students are required to engage critically with their peers. It is essential that students tackle their course material and assignments and attach meaning to them. They will do this by thinking creatively and critically and by sharing and questioning ideas with their peers and lecturers.

### 2.8.3 Teaching presence

Garrison and Arbaugh (2007:163) describe teaching presence as “the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes”.

37
An evaluation of the above highlights the fact that teaching presence consists of two legs, namely, the cognitive leg and the social leg. Teaching presence suggests that lecturers must direct and lead both social and cognitive exercises with the intention of achieving the prescribed learning outcomes. It is, thus, essential that the direction of social and cognitive processes be purposeful, with the realisation of the learning outcome as the end result.

2.9 THE LINK BETWEEN THE COMMUNITY OF INQUIRY FRAMEWORK AND LMSs

The CoI framework was developed to guide the practice and research of online teaching and learning. LMSs on the other hand are tools, which can be used to facilitate online teaching and learning. In the context of this study these two concepts will be linked to each other by viewing the manner in which LMSs are currently used and identifying whether the fundamentals of the CoI are present in the use of LMSs. In other words the researcher will check if the social, cognitive and teaching presence are present in the manner in which LMSs are currently being utilised by the chosen participants of the study. This is necessary because the proponents of the CoI argue that for online teaching and learning to be successful these three presences must exist in the online environment.

2.10 CONCLUSION

This chapter began by discussing the theoretical framework that this study employed. This was followed by a brief overview of what LMSs are, including a definition for the term LMS. The LMSs available in the market today were then explained as was the current presence of LMSs. In view of the fact this study took place at Unisa, the LMS used at Unisa was then discussed. This was followed by the advantages LMSs offered, whereby the advantages were grouped under various categories. The researcher then discussed what LMSs should be doing while taking into account the challenges involved in the use of LMSs. As Unisa is an ODL institution the relationship between ODL and
LMSs was then explained. The chapter concluded with a discussion on the current debate regarding the future of LMSs.
CHAPTER 3
RESEARCH DESIGN AND METHODS

3.1 INTRODUCTION

The previous chapter discussed the theoretical framework on which this study will be argued. It also contained a discussion on the important aspects related to LMSs as documented in the literature.

The purpose of this chapter is to provide an outline of the empirical aspect of this research study. Accordingly, the researcher will provide a description of the research design and research methods that the study employed. This will be followed by an account of the measures which the researcher took to ensure the validity and reliability of the study. The chapter will conclude with a discussion of the ethical considerations which played a role in the study.

3.2 RATIONALE FOR EMPIRICAL RESEARCH

Chapter 1 highlighted the underutilisation of LMSs across the globe, despite the fact that they have been adopted by universities worldwide. This underutilisation, in turn, prompted the need for empirical research in this area in order to find out more about the utilisation of LMSs in institutions of higher education in South Africa. In addition, the researcher was of the opinion that empirical research would allow the main and sub-questions of the research to be answered, namely:

Main question:

- How do lecturers use learning management systems at an ODL institution in South Africa?
Sub-questions:

- What are the primary purposes for which learning management systems are utilised?
- Why do lecturers utilise the learning management system at Unisa?
- What challenges do lecturers experience in using the learning management system at Unisa?
- What recommendations may be made regarding the more effective utilisation of learning management systems?

3.3 RESEARCH DESIGN

This study employed a qualitative paradigm for its empirical investigation. According to Merriam (2002:3–4),

> the key to understanding qualitative research lies with the idea that meaning is socially constructed by individuals in interaction with their world. The world, or reality, is not the fixed, single, agreed upon, or measurable phenomenon that it is assumed to be in positivist, quantitative research. Instead there are multiple constructions and interpretations of reality that are in flux and that change over time. Qualitative researchers are interested in understanding what those interpretations are at a particular point in time and in a particular context.

Thus, it emerges from the quotation above that qualitative research is premised on the notion that meaning is attached to the world in which we live and to its activities. This meaning is constructed by individuals themselves. Accordingly, qualitative researchers consult the source of this meaning, namely, people who are trying to interpret the world and its various activities. In general, qualitative researchers are interested in these meanings at a particular time and within a particular context. The researcher considered
qualitative research to be an appropriate paradigm for this research study because the study aimed to find out from lecturers themselves, based on their personal experiences, how they currently utilise the LMS.

Merriam (2002:5) also points out that a

*secondary characteristic of all forms of qualitative research is that the researcher is the primary instrument for data collection and data analysis. Since understanding is the goal of this research, the human instrument, which is able to be immediately responsive and adaptive, would seem to be the ideal means of collecting and analysing data.*

Based on the above characteristics of qualitative research, this type of research was also deemed to be appropriate for this study because the researcher was the primary instrument for both the data collection and the data analysis. This enabled the researcher to become immersed into the research situation and to obtain immediate feedback from the participants of the study during the interviews.

A phenomenological case study was used for this study. McMillan and Schumacher (2006:26) suggest that a case study “examines a bounded system, or a case in detail. The case may be a program, an event, an activity, or a set of individuals bounded in time and place”.

In the context of this definition by McMillan and Schumacher a case study was deemed suitable for this study, as the researcher was investigating a bounded system namely, a group of lecturers in one college. This investigation was conducted in a detailed manner, in terms of which the lecturers were interviewed on a one-on-one basis.

The researcher adopted a phenomenological stance as regards the case study. As mentioned in section 1.5.2, according to Lester (1999), the purpose of the phenomenological approach
is to illuminate the specific, to identify phenomena through how they are perceived by the actors in a situation. In the human sphere this normally translates into gathering deep information and perceptions through inductive, qualitative methods such as interviews, discussions and participant observation, and representing it from the perspective of the research participants. Phenomenological approaches can be applied to single cases or to serendipitous or deliberately selected samples.

In light of the above, a phenomenological approach was deemed appropriate for this study because the researcher was interested in finding out about a specific phenomenon, namely, the manner in which LMSs at Unisa are currently being utilised. The researcher did this by conducting interviews with a group of people who may be regarded as the case for this study and representing their experiences in chapter 4 of this study. This approach ties in with the phenomenological approach and, thus, a phenomenological approach was appropriate for this study.

3.4 RESEARCH METHODS

3.4.1 Selection of participants

Participants for this research were limited to the College of Education at Unisa. The College of Education consists of two schools of which include: the school of Education Studies and the School of Teacher Education. Each school consists of five departments, which adds up to ten departments. The researcher initially wanted to select one participant from each of the ten departments. However due to unavailability of participants this was not possible. Although the researcher still interviewed ten participants, however not all from the ten departments. A detailed breakdown of the participants is shown in chapter 4, section 4.1. What follows is an explanation on how these participants were chosen.
The participants for this research study were selected using the method of purposive sampling. According to Morse (2004:884), "purposive sampling in qualitative inquiry is the deliberate seeking out of participants with particular characteristics, according to the needs of the developing analysis and emerging theory". Thus, purposive sampling involves the intentional seeking out of research participants who will be in a position to yield information-rich data on a topic. Purposive sampling was deemed appropriate for this study because the researcher was interested in finding out specific information about the topic under investigation. It, therefore, made sense to select people who were in a position to provide such information.

The type of purposive sampling that was selected for this research was snowball sampling. As mentioned in section 1.5.3, according to McMillan and Schumacher (2006:321), snowball sampling is a type of sampling in terms of which “each successive participant or group is named by a preceding group or individual. Participant referrals are the basis for choosing a sample. The researcher develops a profile of the attributes or particular trait sought and asks each participant to suggest others who fit the profile or has the attribute”.

The rationale behind selecting snowball sampling for this study was related, firstly, to the large lecturing staff complement currently employed in the College of Education at Unisa, namely, 137 lecturers. The fact that the staff complement is so large meant that it was not practical for the researcher physically to seek out appropriate participants herself. Secondly, before the study officially commenced, the researcher had noticed, in informal conversations with her colleagues during which she had discussed her research topic, that they would inform her about other colleagues in the college who they regarded as being actively engaged with the LMS. Thus, the researcher selected snowball sampling as the appropriate sampling method for this study because she believed that colleagues in the various departments of the college would be able to refer her to other, suitable colleagues.
At the beginning of the study the researcher had found two colleagues who were willing to participate in the study. These were the participants from the Science and Technology Department and the Department of Language Education, Arts and Culture. After the interviews they gave her the names of other colleagues whom they felt would be able to answer the research questions. This process continued until the researcher had interviewed ten participants.

3.4.2 Data collection

3.4.2.1 Pilot study

According to Persaud (2010:1033), “a pilot study refers to either a trial run of the major research study or the pretest of a particular research instrument or procedure”. In the context of this study a pilot study was conducted with one lecturer in the College of Education at Unisa. The purpose of the pilot study was to test the interview guide (the research instrument) and determine whether the questions resulted in data that would answer the research questions. On completion of the pilot study the researcher found that it was necessary to revise certain questions as they had been too vague. These questions were then revised accordingly.

3.4.2.2 Semi-structured interviews

The researcher chose semi-structured interviews as the method with which to collect data from the participants regarding the research topic. According to Corbetta (2003:270), when semi-structured interviews are conducted the interviewer prepares an outline of the topics that will be covered during the interview. Corbetta also states that the semi-structured interview allows a sense of freedom as the topics do not have to be dealt with in a specific order. In addition, in a semi-structured interview, the interviewer has the opportunity to ask for clarification if the answers are not clear, to prompt the respondent and to probe if and when necessary.
In this study the semi-structured interviews worked well because, although the researcher made use of an interview guide, she did not follow the questions in the same order but rather asked the questions at stages of the interviews at which they appeared to be appropriate. Semi-structured interviews were also regarded as appropriate because both the researcher and the participants had the opportunity in the interviews to ask for clarification, while the researcher had the freedom to explore and probe for more detail when she deemed it necessary. In addition, the outline of the questions helped the researcher to ensure that the interviewed focused on answering the research questions.

3.4.2.3 Interview guide

An interview guide was used to interview the participants (see Appendix C). Corbetta (2003:270) points out that "in a semi-structured interview the interviewer's outline may contain varying degrees of specification and detail. It may simply be a checklist of the topics to be dealt with or a list of questions". In the case of this study the interview guide contained a list of the questions that were posed to the participants. All the answers from the interviews were transcribed after the interviews had been completed (see Appendix D). The researcher included this particular transcription (Appendix 9) because it yielded information rich data on the topic.

3.4.2.4 Tape recording

All the data from the interviews were captured using a tape recorder and later transcribed. According to Laws, Harper and Marcus (2003:265), “tape recording creates a complete record of what has been said. This avoids the problem of the interviewer getting distracted from the interview by the process of recording it. It captures peoples’ own way of saying things, which can bring a report to life.” The researcher requested permission from the participants before the tape recorder was switched on.
3.4.2.5 Triangulation

According to McMillan and Schumacher (2006:374), triangulation is the “cross-validation among data sources, data collection strategies, time periods and theoretical schemes”. In the context of this study the researcher triangulated the data by means of document analyses. According to Bowen (2009:27), a document analysis “is a systematic procedure for reviewing or evaluating documents—both printed and electronic material. Documents contain text and images that have been recorded without a researcher’s intervention.” For the purposes of this study the researcher compared the data from the interviews with a table of information already available on myUnisa. This table of information highlighted the teaching and learning tools for 2012. Next to each teaching and learning tool the month was listed with the number of times the tool had been used. The researcher compared this with the tools which the participants had indicated that they used the most frequently. The results of this comparison are explained in chapter 4.

3.4.3 Data processing

For the purposes of this study the data were analysed using the process of inductive analysis. In terms of inductive analysis categories and themes emerge from the data rather than being imposed on the data beforehand (McMillan & Schumacher 2006:364). After the interviews had been transcribed the researcher had to analyse the data and answer the research questions based on the themes that had emerged from the data. In keeping with the process of inductive analysis the researcher did not have any preconceived ideas about the data but, instead, approached the data with an open mind. In order to do this the researcher decided to make use of an organising system as described by McMillan and Schumacher (2006:368). They suggest that an organising system can be created by doing the following (the researcher listed the steps that she employed in this study only):

a. Get a sense of the whole. Read each of the data sets and write down ideas about the data as you read. In the context of this study the researcher read each
transcribed data set carefully, keeping the research questions and literature review in mind as she read. She wrote notes as she read the data.

b. Generate codes from the data. Read a data set and ask yourself: What is this about? The descriptive name for the subject matter or topic is a code. In the context of this study, as the researcher read through the data, she identified common aspects that had recurred in the responses of the participants. The common aspects were labelled in the margins of the pages as codes and were later used to write up the themes as discussed in chapter 4 of this study.

3.5 VALIDITY AND RELIABILITY

According to Morse, Barret, Mayan, Olson and Spiers (2002:2), “without rigor, research is worthless, becomes fiction, and loses its utility. Hence, a great deal of attention is applied to reliability and validity in all research methods”. This clearly highlights the importance of attaining rigour in a study as, if a study is not characterised by a strong sense of rigour, it will lose its credibility. In order to achieve rigour in this study the researcher followed the criteria for trustworthiness as proposed by Lincoln and Guba (1985). These criteria include credibility, transferability, dependability and confirmability. These criteria are described briefly below and also how they were realised in the study.

3.5.1 Credibility

According to Lincoln (n.d), “[c]redibility refers to the plausibility of an account: Is it believable? Is the report deemed an accurate statement by those whose lived experience is reported?” In other words, credibility refers to the extent to which the study is an actual presentation of the participants who have participated in the study. Shenton (2004:68–69) suggests that both member checks and providing a thick description of the phenomenon under scrutiny helps to achieve credibility in a study. In the context of this study the researcher conducted member checks during the interviews themselves to confirm and clarify the participants’ responses. In terms of providing a thick description, Creswell and Miller (2000:128) suggest that the researcher should describe amongst
others, the participants and the themes of a qualitative study in rich detail. In the context of this study the researcher has provided a description of the participants and the themes in chapter 4 of this study.

### 3.5.2 Transferability

According to Lincoln (n.d.), transferability refers to the ability of a report to be transferred to another setting similar to that in which the original case was conducted. According to Shenton (2004:70), in order to achieve transferability in a study, it is essential that sufficient contextual information about the fieldwork sites be provided to enable the reader to make a transfer. Information on certain issues should be given at the outset. The researcher has tabulated these issues and provided an account of the point at which these issues were addressed in the context of this study.

<table>
<thead>
<tr>
<th>Issues</th>
<th>Section in which these issues were accounted for in the study</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of organisations taking part in the study and where they are based</td>
<td>Section 3.4.1</td>
</tr>
<tr>
<td>Any restrictions in the type of people who contributed the data</td>
<td>This was not relevant to this study</td>
</tr>
<tr>
<td>The number of participants involved in the fieldwork</td>
<td>Section 3.4.1</td>
</tr>
<tr>
<td>The data collection methods that were employed</td>
<td>Section 3.4.2</td>
</tr>
</tbody>
</table>

### 3.5.3 Dependability

According to Lincoln and Guba (1985 in Schwandt 2007:299), dependability focuses on the process of the inquiry. They furthermore argue that it is the inquirer’s responsibility to ensure that the process is documented, logical and traceable. In the context of this study
the researcher documented the process of this study in this chapter. It is, therefore, traceable by anyone who should deem this necessary.

3.5.4 Confirmability

According to Trochim (2006), confirmability refers to the degree to which the results could be confirmed or corroborated by others. Trochim suggests that confirmability may be achieved by checking and rechecking the data throughout the course of the study. In the context of this study the researcher made provision for checking the data by conducting member checks during the interviews themselves (as explained in section 3.5.1). In addition, when the data were analysed the supervisor was asked to corroborate the themes as they emerged from the data to ensure that she agreed with the themes.

3.6 ETHICAL MEASURES

Ethical measures were taken throughout various stages of the study, from the inception of the study.

3.6.1 Ethical clearance from UNISA

In view of the fact that the participants in this research study are all staff members at Unisa, the researcher applied for ethical clearance from that institution in order to carry out the study. Consequently, ethical clearance for the study was granted by Unisa (see Appendix B).

3.6.2 Access and sampling

According to Flick (2007:72), in order to obtain informed consent,

\[ a \ mutual \ contract \ should \ be \ prepared, \ which \ explains \ the \ purpose \ of \ the \ research, \ the \ expectations \ from \ the \ participant \ (e.g. \ to \ give \ an \ interview), \]
the procedure with the data (how long it is to be stored, who will have access, how is anonymity guaranteed). This should be signed by the participants and should include a possibility of withdrawing consent.

In the context of this study all the participants were asked to sign an informed letter of consent (see Appendix A), which satisfied all the above criteria recommended by Flick.

3.6.3 Collecting data

3.6.3.1 Respecting the participants

When conducting an interview the researcher enters into a dialogue with the participant. This dialogue, in turn, involves asking for access to the participant's space and information. It is, therefore, important that the researcher respect the participant's space and not probe for information if it appeared that the participant in question was not comfortable (Flick 2007:73). While conducting the interviews for the purposes of this study, the researcher made sure that she respected her participants at all times and that she did not overstep boundaries or probe if it appeared that the participants were not comfortable.

3.6.4 Analysing the data

3.6.4.1 Confidentiality

“A major issue in analyzing the data is how to keep the anonymity and privacy of your research participants. Field notes and transcripts should not include concrete information about real persons and sites, but should be anonymised right away” (Flick 2007:74).

For the purposes of this research study the researcher did not reveal the names of the participants but, instead, referred to them as Participant A, Participant B and so forth.
3.7 SUMMARY

This chapter provided an account of the way in which the empirical investigation in this study was conducted. The researcher began by explaining why she had deemed empirical research to be appropriate for this study. The research design was then discussed. The researcher explained that the qualitative paradigm had been employed in the study, as had a phenomenological case study. The research methods adopted in the study were then discussed. The researcher explained that the participants had been selected by means of purposive sampling, that the data had been collected using semi-structured interviews and that the data had been triangulated through document analysis. The researcher then explained how she had analysed the data that had emanated from the interviews. She then discussed how she had ensured the validity and the reliability of the study and how Lincoln and Guba’s criteria for trustworthiness had been realised in the study. The chapter concluded with a discussion on the ethical considerations of the study. The next chapter presents, analyses and discusses the data that was collect during the empirical investigation.
CHAPTER 4
DATA PRESENTATION, DATA ANALYSIS AND DISCUSSION OF DATA

4.1 INTRODUCTION

The previous chapter contained an account of how the empirical research had been carried out in the study. This chapter will present the findings of the interviews that were conducted with the 10 participants in the respective departments and also the data analysis. Interviews with the participants were conducted on campus with a discussion being held with each participant. This discussion was based on the questions contained in the interview schedule. The table below presents the profiles of the participants who were interviewed in the course of this study:

Table 2: Details of participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Race</th>
<th>Gender</th>
<th>Department</th>
<th>Number of Years working at UNISA</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Indian</td>
<td>Female</td>
<td>Department of Language Education, Arts and Culture</td>
<td>10 months</td>
</tr>
<tr>
<td>A</td>
<td>Black</td>
<td>Female</td>
<td>Department of Science and Technology Education</td>
<td>1 year 6 months</td>
</tr>
<tr>
<td>B</td>
<td>Black</td>
<td>Female</td>
<td>Department of Curriculum and Instructional Studies</td>
<td>10 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Department of Educational Management and Leadership</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>C</td>
<td>Black</td>
<td>Male</td>
<td>Department of Educational Management and Leadership</td>
<td>7 years</td>
</tr>
<tr>
<td>D</td>
<td>Black</td>
<td>Male</td>
<td>Department of Adult Basic Education</td>
<td>3 years</td>
</tr>
<tr>
<td>E</td>
<td>White</td>
<td>Female</td>
<td>Department of Psychology of Education</td>
<td>27 years</td>
</tr>
<tr>
<td>F</td>
<td>Black</td>
<td>Female</td>
<td>Department of Educational Management and Leadership</td>
<td>3 years</td>
</tr>
<tr>
<td>G</td>
<td>Black</td>
<td>Female</td>
<td>Department of Language Education, Arts and Culture</td>
<td>17 years</td>
</tr>
<tr>
<td>H</td>
<td>White</td>
<td>Female</td>
<td>Department of Educational Foundations</td>
<td>26 years</td>
</tr>
<tr>
<td>I</td>
<td>Black</td>
<td>Female</td>
<td>Department of Inclusive Education</td>
<td>3 years</td>
</tr>
<tr>
<td>J</td>
<td>Black</td>
<td>Male</td>
<td>Department of Inclusive Education</td>
<td>4 years 4 months</td>
</tr>
</tbody>
</table>
From the table above it can be seen that two of the participants interviewed were from the Department Educational Management and Leadership and two from the Department of Inclusive Education. The reason for this was that the participants from the Department of Early Childhood Education and the Department of Mathematics Education were not available for interviews. The researcher had, thus, decided to interview two participants from the Department of Educational Management and Leadership and two from the Department of Inclusive Education as she had wanted to interview 10 participants as she had initially planned to do and these participants were available. The table also reveals that the participants were mixed in terms of race, gender, departments and years of working experience.

4.2 DISCUSSION OF THE INTERVIEWS

Below is a list of these themes that emerged from the interviews. This is followed by an explanation of the meanings of the themes:

*The main and sub-themes of the study included the following:*

- Administration
- Announcement tool
- Masters and doctoral (M&D) student activity tool
- Discussion forum
- Teaching and learning
- Independent learning
- Immediate access to students
- Challenges regarding myUnisa
- Lack of student access to the internet
- Lack of skill on the part of lecturers
- Traditional way of doing things
- Workload
- Recommendations
• Training and support for students
• Ongoing training for lecturers

4.3 DISCUSSION OF THEMES

4.3.1 Administration

It emerged from the interviews that the main reason why the participants used myUnisa was to meet the administrative requirements of their modules. They made use of two main tools to do this, namely, the announcement tool and the M&D student activity tool.

The researcher will firstly explain what each tool entails and thereafter discuss how these tools were used in the context of this study.

4.3.1.1 Announcement tool

The announcement tool on myUnisa allows lecturers to post any announcements they wish about the module in question. Once the lecturer has posted the announcement it becomes immediately available for students to view.

When the respondents were asked about the purposes for which they used myUnisa, the majority indicated that myUnisa helped them to facilitate the administrative aspects of their course. These administrative aspects include reminding students about due dates for assignments, informing students about follow-up tutorial letters and examination guidelines, checking whether students have submitted assignments, and so forth. Thus, it emerged that the announcement tool is used predominantly for these purposes.

Participant C, who had not demonstrated much interest in the use of myUnisa, mentioned that, for him, using myUnisa was more of an “administrative task” which he used to check whether a student had submitted an assignment or obtained a mark. Participant D agreed with this view of Participant C, stating that he used the announcement tool
“especially for due dates of assignments.” Participant E announced that she was a frequent user of myUnisa and that she made use of the announcement tool to post “notes for example, it is time for the assignment to be submitted…”. Participant F, who works in a team of lecturers teaching a specific module, used the announcement tool for the same purposes as the above participants and also indicated that the team members viewed the announcement tool as useful for updating students on relevant developments or changes within the module the team taught. She stated that they used the announcement tool “particularly on a change in a tutorial letter or maybe if they want to extend the date or update students about some developments”. Participant A agreed with participant F and also explained that she used the announcement tool to “upload a memorandum or examination question paper or any other material” and to remind students about “due dates for assignments”. Participant I used the announcement tool to deal with the administrative aspects of her course and mentioned that she used it when “there is a tutorial letter we need to issue out or maybe if there are discussion classes”.

Thus, it emerged from the above that the announcement tool was one of the frequently used tools that the participants used on a regular basis. In particular it is used to update students about various information regarding their courses, for example, to inform students about due dates for assignments, to alert students to materials that have been uploaded and to inform students about discussion classes. The participants relied on the announcement tool as it provided them with quick access as regards updating and informing their students about important and, sometimes, urgent information about the modules they were studying.
4.3.1.2 Master’s and doctoral (M&D) student activity tool

The M&D student activity tool is a tool that allows lecturers to upload all activities relevant to their master’s and doctoral students. The uploading of these activities is extremely important because the government provides subsidies to the university based on the number of master’s and doctoral students, and lecturers are remunerated for supervising master’s or doctoral students. Thus, management often instructs and reminds lecturers to upload their M&D activities and it is, therefore, compulsory for lecturers to upload these.

Another sub-theme under the administration theme involved the participants using myUnisa to update the activities of their master’s and doctoral students. The participants indicated that it was incumbent on them to use this tool to account for the work they had done and progress they had made with their master’s and doctoral students.

Participant F explained that management often prompted lecturers to update the work they had completed with their master’s and doctoral students and she informed the researcher that “managing M&D activities on myUnisa is something you need to do often; we get e-mails from our directors to say just make sure that you update activities on myUnisa”. Participant J also explained that the M & D student activity tool helped him to “keep records and track” of his postgraduate students, while Participant C mentioned that he used myUnisa for “students’ activities, including M&D students”. On the other hand, Participant H, who had explained that while she did not use all the tools of myUnisa on a regular basis, did indicate that she was extremely conscientious about uploading the activities of her M&D students and maintained that she updated these “once a week”.

The above highlights the fact that the M&D student activity tool is a useful tool for assisting lecturers to account for what they have done regarding master’s and doctoral students at the university. It would appear that the M&D student activity tool also provides
a source of reference to which management may refer in order to monitor the progress of the master’s and doctoral students in the university.

4.4 TEACHING AND LEARNING

4.4.1 Discussion forum

The discussion forum on myUnisa is open for both students and lecturers to use and to view and both students and lecturers are able to post any comments and questions regarding courses.

When discussing the purposes for which they used myUnisa the majority of the participants mentioned the use of the discussion forum. It became clear from the discussions that all the participants were using the discussion forum in a similar manner, while the primary purpose for which they used the discussion forum was to observe students’ communications about modules. It would seem that the discussion forum is a tool that the participants used to keep abreast of students’ concerns, queries and so forth regarding courses. This is evident in the following participants’ responses.

Participant E, who had explained that she was a frequent user of myUnisa, mentioned that she accessed myUnisa at least twice a week “to see what students are talking about on the forums”. Participant F used the discussion forum in the same way as Participant E, also reporting that she used myUnisa to “check the discussions” among students. Participant I mentioned that she regarded myUnisa as important and that she accessed it frequently to read the students’ discussions and “see where their problems are”.

Participant G regarded the discussion forum as a way in which to keep track of what “the students are doing and saying”. Participant J agreed with the previous participants and indicated that he used the discussion forum for the same purposes as them. He also mentioned that he kept track of the discussion forum and, when he realised that certain “aspects are really an issue”, he would respond.
It emerged from the participants’ use of the discussion forum that they used it primarily to monitor and observe what students were discussing about modules. It would, thus, appear that the discussion forum enabled the participants to “stay in the loop” as regards issues concerning their modules. However, the participants responded to the students’ questions, comments and so forth only when they observed that students were misinforming each other. The researcher found this interesting and probed further, asking the participants why they first allowed students to try to help each other. The theme of independent learning emerged from this probing and will be discussed next.

4.4.2 Independent learning

As discussed in the theme above the researcher asked the participants why they did not respond immediately to queries which the students raised in the discussion forum. Participant E replied that she believed it is necessary for students to develop on their own, stating that “it is easy for me to say two plus two is four, while they could first find out themselves what the answer is”. It would, thus, seem that participants were not interested in giving students the answers directly, but that they wanted students to think for themselves and to help each other and, by so doing, learn during the process. Participant A confirmed this finding when she mentioned that she offered “just guidance” to her students in the discussion forum. Participant F who, as mentioned previously, worked in a team of lectures to teach the module in question, indicated that when the team members accessed the discussion forum “we will leave the students to explore the answers for themselves, but we don’t necessarily give them answers, we guide them”. Participant D adopted the same practice as regards the discussion forum. He indicated that he allowed students to interact with each other on the discussion forum and said, “I just chip in if ever there are problems”. Participant J stated that he first makes students “help one another and, if their responses are not a true reflection of what’s real, I respond”.

60
It emerged from the above that the participants wanted their students first to explore and engage with each other regarding the modules before they intervened. The participants all agreed that they first observed the discussion forum to check what students were discussing regarding the module in question. They maintained that they do not respond to the students’ queries immediately, but that they preferred to wait for the students to help each other and that they would respond only if they observed that students were misinforming each other about the questions and comments in the discussion forum. In short, it would appear that the participants were encouraging independent learning among the students through the use of the discussion forum, as the students were first given the opportunity to learn from each other before the participants intervened.

4.5 IMMEDIATE ACCESS TO COMMUNICATION WITH STUDENTS

This theme deals with the reasons why lecturers use myUnisa. When discussing the reasons why they used myUnisa the majority of the participants indicated that they did so because it provided them with immediate access to their students, through the announcement tool and the discussion forum. The announcement tool served as a mechanism which they could access to inform students at once about urgent and important information, while the discussion forum gave them access to students’ discussions regarding modules. When discussing this latter aspect with the participants the majority of them referred to a postal strike which had occurred prior to the interviews. They indicated that myUnisa had enabled them to inform their students that there would be a delay in the marking of their assignments. The fact that the participants used myUnisa because it gave them immediate access to their students is evident in their responses as discussed below.

Participant J mentioned that he liked myUnisa because he “has access to his students almost immediately”. Participant I agreed with participant J in stating that myUnisa “accommodates each and every person as long as they have some access”. Participant F regarded myUnisa as beneficial because, if she wished to post an announcement for her students, she would be able to access all her students immediately and this would, in
turn, “minimise the calling” from students. Participant G voiced similar sentiments, stating that she regarded myUnisa as a resourceful tool. She agreed with the other participants that she liked myUnisa primarily because of its “immediacy” and, secondly, because if she posted something and one student received it, other students would also probably receive it.

These responses from the participants highlight that myUnisa is a useful tool for lecturers in terms of accessing all their students immediately, regardless of geographical location.

4.6 CHALLENGES REGARDING myUnisa

4.6.1 Lack of student access to the internet

One of the challenges that most of the participants mentioned during the discussion on the challenges they experienced when using myUnisa was the concern that many students do not have access to the internet and, therefore, they are not able to access myUnisa. The majority of the participants expressed the need to acknowledge that many of the students they teach are situated in the remote rural areas, with no access to the internet. They also explained that, even if Unisa provided access to its students at the regional centres, the students had told them that they did not have the money to travel to these regional centres. They furthermore expressed that even if students were given access to the internet there was a concern of whether the students had the technical skills to use myUnisa. The participants indicated that an extremely small percentage of their students were active on myUnisa. This is evident in the responses of the participants as discussed below.

Participant D mentioned that, regarding the use of myUnisa, a number of things need to be considered, including “the profile of the students”. He mentioned that, in his department, “most students are in rural areas. There are very, very few in urban areas”. He also stated that “there are few students who access myUnisa”. Participant E indicated that when she went to discussion classes, she always asked her students who accessed
myUnisa and that “of the 200 in the class there may be 2 that access myUnisa”. Participant F agreed with the sentiments expressed by Participant E, stating “I am actually worried, because most of our students are from deep rural areas and people who do not have internet we need to accommodate them because, for module X, for instance, from the 5000 that we talk about, only 10% have access to internet”. Participant A expressed a similar concern when she mentioned that “with our students, I am not sure whether they know how to access or are they equipped with the myUnisa usage, I don’t know…”.

Participant H, who was extremely concerned about the students in the rural areas, mentioned that “we’ve got a huge rural component and it is not because the students are kind of backwards. It is simply the environment, no reliable electricity, no internet connection”. Participant G agreed with this viewpoint, stating that “we have those students who are staying in the rural areas and those students, they don’t have internet access”. Participant J also expressed concern about the students living in the rural areas, saying that “most of our students are in rural areas, so it is a little bit of a problem when they have to access the internet”.

Thus, it emerged from both the discussions and the data analysis that, despite the fact that the participants had indicated that they accessed myUnisa, they were extremely concerned about those students who do not have access to the internet. They expressed particular concern about the rural students. Although the participants felt that myUnisa and online teaching and learning had numerous advantages, their major concern was for the students, especially those students in rural areas, who were not able to access the internet. They indicated that as students in rural areas do not have access to the internet, they are not able to access myUnisa and this, in turn, resulted in an extremely small number of students going online.
4.6.2 Lack of skill on the part of lecturers

This theme addresses the fact that many of the participants felt that it was not only them, but also their colleagues who lacked the skills to use myUnisa. They referred to incidents where colleagues had asked other colleagues or administrative staff to assist them to use myUnisa. This lack of skills was a reality that the participants openly acknowledged. This perceived lack of skill was evident in the following responses of the participants.

Participant F explained that her colleagues telephoned her at times to ask her “How do you access the M and D activities?” while Participant A had personally witnessed her colleagues asking administrative staff for help to use myUnisa, mentioning that “most of us, we come ask the admin staff to come help us…all of us are expected to do it, but we don’t know how”. When asked whether he felt he possessed the skills required to use myUnisa, Participant C responded “not on myUnisa.” Participant J agreed with this sentiment and mentioned that he found that working on myUnisa was not always easy and that he worked on a “trial and error basis”. In responding to the question on the challenges she faced when using myUnisa, Participant P mentioned that “sometimes I even found it hard typing a response…I don’t know I was either doing it in the wrong place”. She further remembered that, when she had needed to upload her assessment plan and she had needed help, she had run down the corridor, knocking on colleagues’ doors, and had been told by her colleagues that they “don’t know how”.

These responses highlight that the participants were of the opinion that, at times, the lecturers themselves lacked the skills to execute tasks on myUnisa effectively. Some of the participants mentioned that lecturers would ask either the administrative staff of the department or their colleagues for help. This lack of skills mentioned by the participants clearly made it challenging for both them and their colleagues to use myUnisa.
4.6.3 Traditional way of doing things

When discussing the challenges they experienced using myUnisa some of the participants admitted that they were familiar with doing things in the traditional way and that they felt comfortable with this traditional way of doing things. By this they meant reading documents in printed form and communicating with students face to face. The sense of fear involved in moving into a new era of doing things emerged from the discussion with the participants.

Participant F, who has been working at Unisa for three years, explained that she did not feel comfortable teaching her students via online methods, for example, podcasts. She regarded herself as a “a technical teacher” who “wants to see her students” and that teaching via online methods was simply not satisfying. She discussed with the researcher that she found the physical separation from her students difficult because she did not know whether she was speaking at the right pace, whether her students were following her and so forth. Participant J, who had recognised the value of myUnisa, admitted that it was still challenging for him to use it. He mentioned that he had been born in the “60s, early 60s” and explained that using myUnisa was not “an easy thing for him to learn”.

Participant H, who has been a lecturer at Unisa for 26 years, also expressed that she was more familiar and comfortable with the traditional way of doing things. In her discussion with the researcher she mentioned that she had not been “born in this era … the screen generation”. Despite the fact that she realised the need for online teaching and learning, she admitted that it was simply not part of her “comfort zone”. Participant G, who has been employed at Unisa for 17 years, also expressed that she was comfortable with the traditional way of doing things. She explained that “we are very comfortable with the traditional way of teaching and we are so much used to the printed material”.

It emerged from the responses discussed above that some of the participants were experiencing a sense of fear as a result of having to use technology in their teaching and learning and also as a result of having to move away from what they were comfortable
and “used” to doing. They acknowledged that there were benefits to using online teaching, but admitted that it was not easy because it meant moving away from a familiar and comfortable way of doing things.

4.6.4 Workload

The aspect of being overburdened with a heavy workload came up frequently in the discussions with the participants. They indicated that lecturers are expected, among other things, to teach, carry out research, supervise master’s and doctoral students and coordinate their markers. This heavy workload made inroads on their time and made accessing and using myUnisa challenging at times.

Participant A expressed a concern that myUnisa was not being accessed frequently enough. She explained that myUnisa incorporated several tools which could be of benefit, but explained that it may be as a result of the “workload or time” that these tools were not being accessed frequently enough. Participant D also admitted that “due to workload it is difficult to sometimes use myUnisa”.

On the other hand, Participant J felt that myUnisa was not user friendly at times because, if one made a mistake as a result of being “overloaded”, rectifying the mistake involved following a bureaucratic process. By bureaucratic process he meant that if he made a mistake while uploading his assessment plan, for example, he had to write an official memorandum which needed to be signed by his Chair of Department, the Executive Dean and the Vice Principal of Teaching and Learning. He indicated that being “overloaded” meant that using myUnisa became a challenge because it was easy to make mistakes on the system, but extremely challenging to correct them afterwards. Participant H agreed with these sentiments and also indicated that the academic staff members were bombarded with work. She explained that “having to service all the e-mails and do your own personal research and coordinate the markers is time consuming” and that this, in turn, meant that additional tasks such as using myUnisa became challenging.
The information above brought to light that the workloads for which members of the academic staff are responsible make it challenging for them to access myUnisa on a regular basis. The participants indicated that the plethora of duties which academics have to perform take up considerable time and that this often means that it was not easy for them to make use of myUnisa.

4.7 SUGGESTIONS TO BETTER UTILISE myUnisa

4.7.1 Training and support for students

The majority of the participants indicated that they felt that students needed training and support from the institution as they believed that this would increase the student presence on myUnisa. Their experience in using myUnisa had proved to them that an extremely small percentage of their students were present on myUnisa. However, they felt that this problem could be eradicated by providing students with support in terms of giving the students points of access to the internet and training them on how to use myUnisa.

Participant D, who was a supporter of myUnisa, mentioned that “the university should, maybe, speed up the process of going ahead with the issuing of laptops to students”. while Participant A had stated that “students should be given assistance on how to use it”. Participant F indicated that “we can even arrange that there would be a day students come and we train them…just to be knowledgeable about how to use myUnisa…because most of them, they don’t know how to”. Participant H also maintained that the students should be “be supported at the local centres”.

The above discussion with the participants clearly highlighted that they had extremely strong views about Unisa providing support to its students. In addition, they believed that
students should be assisted with training on how to use myUnisa and be provided with the necessary support to enable them to access the internet in order to use myUnisa.

4.7.2 Ongoing training for lecturers

When discussing recommendations regarding the improved utilisation of myUnisa the participants indicated the importance of also training lecturers. It must be mentioned that, when the participants were discussing training, they suggested that the type of training that should be provided to lectures should not be once off, but that it should be ongoing training with follow-up sessions being held.

Participant J, who indicated that it was no easy task to master ICT, expressed the opinion that lecturers are overburdened with work and, therefore, at times, they may forget what they have learnt in training. He suggested that “ongoing and regular training would help”. Participant F, who had maintained that she forgot things when she did not use them, believed that lecturers should attend “training every six months and then use it every week to make sure that you are clued up”. On the other hand, Participant G, who had indicated that, while training is important, training should include “the advantages, the disadvantages and the convenience” of using myUnisa. Participant A agreed with the notion of continuous training and suggested that different tools of myUnisa be covered in different training sessions. She suggested that certain tools be used at certain times of the year and stated that the “whole process should be revisited”. She suggested that there be “annual training and then, from there, follow-up sessions”.

When discussing training it became clear that the participants believed that training should be ongoing and not once off. The participants were clearly of the opinion that it was important for lecturers to undergo training on a regular basis to refresh their skills as they believed that this type of training would be more useful than once-off training.
4.8 DISCUSSION OF THE DOCUMENT ANALYSIS

The findings from the interviews revealed that the participants used the following tools the most often, namely, the announcement tool, the M&D student activity tool and the discussion forum. As mentioned in section 3.4.2.5, the researcher intended to triangulate the findings from the interviews by means of a document analysis. Accordingly, the researcher extracted table 3 below, which was available from myUnisa and which outlines the teaching and learning tools used for the year 2012 by the entire university. The researcher used this table to create table 4 in which she added up the total number of the teaching and learning tools used for each month. From these totals she then created figures 2 and 3 to depict a graphical representation of the teaching and learning tools used in 2012. These tables and figures are presented below and this is followed by an explanation of what these tables and figures mean in the context of the study.

Table 3: Teaching and learning tools for 2012 (taken from myUnisa: 2013)

<table>
<thead>
<tr>
<th>Teaching and learning tools 2012</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>July</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of messages posted in discussion forums</td>
<td>18 884</td>
<td>38 077</td>
<td>34 133</td>
<td>25 322</td>
<td>26 520</td>
<td>11 228</td>
<td>7 007</td>
<td>12 364</td>
<td>5 366</td>
<td>11 569</td>
<td>13 900</td>
<td>6 016</td>
</tr>
<tr>
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<td>98</td>
<td>24</td>
<td>64</td>
<td>7</td>
<td>36</td>
<td>21</td>
<td>78</td>
<td>9</td>
<td>5</td>
<td>37</td>
<td>77</td>
<td>120</td>
</tr>
<tr>
<td>Number of announcements added</td>
<td>1 110</td>
<td>1 616</td>
<td>1 771</td>
<td>1 425</td>
<td>1 298</td>
<td>763</td>
<td>426</td>
<td>615</td>
<td>357</td>
<td>823</td>
<td>653</td>
<td>362</td>
</tr>
<tr>
<td>Number of bulk emails sent</td>
<td>5</td>
<td>15</td>
<td>23</td>
<td>12</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>17</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Number of additional calendar items added</td>
<td>1 404</td>
<td>825</td>
<td>665</td>
<td>451</td>
<td>436</td>
<td>541</td>
<td>248</td>
<td>255</td>
<td>73</td>
<td>733</td>
<td>374</td>
<td>436</td>
</tr>
<tr>
<td>Number of student lists compiled</td>
<td>1 059</td>
<td>1 345</td>
<td>1 179</td>
<td>806</td>
<td>665</td>
<td>533</td>
<td>236</td>
<td>741</td>
<td>126</td>
<td>390</td>
<td>580</td>
<td>189</td>
</tr>
<tr>
<td>Number of student lists downloaded</td>
<td>1 374</td>
<td>1 326</td>
<td>731</td>
<td>535</td>
<td>588</td>
<td>448</td>
<td>223</td>
<td>199</td>
<td>129</td>
<td>355</td>
<td>1 119</td>
<td>886</td>
</tr>
<tr>
<td>Number of welcome messages updated</td>
<td>6 025</td>
<td>6 401</td>
<td>6 822</td>
<td>6 058</td>
<td>10 425</td>
<td>4 609</td>
<td>2 446</td>
<td>3 389</td>
<td>1 169</td>
<td>8 469</td>
<td>9 228</td>
<td>4 952</td>
</tr>
<tr>
<td>Number of resource files added</td>
<td>1 529</td>
<td>3 287</td>
<td>2 830</td>
<td>1 938</td>
<td>5 222</td>
<td>2 051</td>
<td>1 129</td>
<td>1 721</td>
<td>787</td>
<td>3 455</td>
<td>6 372</td>
<td>3 262</td>
</tr>
<tr>
<td>Number of resources revised</td>
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<td>589 050</td>
<td>669 156</td>
<td>1 216 151</td>
<td>1 136 169</td>
<td>477 497</td>
<td>74 031</td>
<td>135 051</td>
<td>92 584</td>
<td>100 134</td>
<td>395 325</td>
<td>170 160</td>
</tr>
</tbody>
</table>
Table 4: Totals of teaching and learning tools for 2012 (generated using the figures in Table 3 above)

<table>
<thead>
<tr>
<th>Teaching and Learning Tools 2012</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>July</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of messages posted in discussion forums</td>
<td>18 884</td>
<td>38 077</td>
<td>34 133</td>
<td>25 322</td>
<td>26 520</td>
<td>11 228</td>
<td>7 007</td>
<td>12 364</td>
<td>5 366</td>
<td>11 569</td>
<td>13 900</td>
<td>6 016</td>
<td>210 386</td>
</tr>
<tr>
<td>Number of FAQ items added</td>
<td>98</td>
<td>24</td>
<td>64</td>
<td>7</td>
<td>36</td>
<td>21</td>
<td>78</td>
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<td>5</td>
<td>37</td>
<td>77</td>
<td>120</td>
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</tr>
<tr>
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<td>1 616</td>
<td>1 771</td>
<td>1 425</td>
<td>1 298</td>
<td>763</td>
<td>426</td>
<td>615</td>
<td>357</td>
<td>823</td>
<td>653</td>
<td>562</td>
<td>11 419</td>
</tr>
<tr>
<td>Number of bulk emails sent</td>
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<td>665</td>
<td>533</td>
<td>236</td>
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<tr>
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<td>731</td>
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<td>223</td>
<td>199</td>
<td>129</td>
<td>355</td>
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<td>669 156</td>
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<td>1 136 169</td>
<td>477 497</td>
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<td>100 134</td>
<td>395 325</td>
<td>170 160</td>
<td>5 418 574</td>
</tr>
</tbody>
</table>

Figure 2: Some of the most popular teaching and learning tools for 2012
4.8.1 Discussion of tables and figures

The tables and figures above revealed that the teaching and learning tool that was used the most frequently in 2012 (table 4 and figure 3) was the resources read tool. The total of the resources read was significantly higher than the other totals and, thus, was represented in its own graph. Below is a representation of the teaching and learning tools for 2012. Please note that these tools are representative of the entire university:

Number of resources read: 5418574
Number of messages posted in the discussion forum: 210386
Number of resource files added: 67993
Number of resources revised: 33583
Number of announcements added: 11419
Number of welcome messages updated: 7913
Number of student lists compiled: 7849
Number of additional calendar items added: 6441
Number of student lists downloaded: 1486
Number of FAQ items added: 576
Number of bulk e-mails sent: 105

If the above data are compared to the findings of the empirical study, certain similarities emerge. The empirical study found that the most popular tools used by the lecturers in the sample were the announcement tool, the M&D student activity tool and the discussion forum, while the data from myUnisa showed that the discussion forum and the announcement tool were among the teaching and learning tools there were higher up in the list and were among the teaching and learning tools which had been used more frequently in 2012. There is, thus, clearly a correlation between the data from the interviews and the data from the document analysis. It may, therefore, be concluded that the discussion forum and the announcement tool are among the more frequently used tools on myUnisa.

However, if one considers the information in the tables and figures in isolation from the empirical data it becomes clear that the most popular tools used in 2012 were the tools related to resources. These tools included resources added, read and revised. Nevertheless, the discussion forum and the announcement tools were also included in the more frequently used tools. At this stage the researcher is not able to speculate how these tools are used. For example, the tools related to resources may merely refer to the compulsory course material, such as tutorial letters and examination papers, which are uploaded and read. In addition, the discussion forum and announcement tools may be used in either a different way or even the same way as they were apparently used by the participants in the empirical study. It is, thus, recommended that further research be conducted into these issues by including a larger sample from all the colleges in the university, as the data extracted from myUnisa are representative of the entire university.
4.9 CONCLUSION

This chapter discussed both the main themes and the sub-themes that emerged from these main themes as they related to the research questions. The main themes relating to the research questions of this study included that of administration in terms of which the participants explained that they used two main tools, namely, the announcement tool and the M&D student activity tool, in order to facilitate the administrative aspects of their course. The theme of teaching and learning also emerged. As regards this theme the participants had encouraged the use of independent learning via the discussion forum. The theme of immediate access emerged as the dominant theme as regards the reasons why lecturers use myUnisa. Themes relating to the challenges which the participants experienced with myUnisa were identified, with the participants explaining those issues which made it challenging for them to use myUnisa; for example, the lack of student access to the internet, a lack of skill on the part of lecturers, traditional ways of doing things and an extremely heavy workload. The chapter concluded with an explanation of the themes in respect of the recommendations that the participants made regarding the use of myUnisa, namely, training and support for students and ongoing training for lecturers. The next chapter includes the summary, conclusions and recommendations of the study.
CHAPTER 5
SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

5.1 INTRODUCTION

The previous chapter provided an overview of the empirical study and highlighted the main themes and sub-themes as they had emerged from the data. This chapter will provide a holistic overview of the entire study. The chapter will begin by presenting a summary of both the literature review and the empirical study. This will be followed by a synthesis of the research findings and a discussion of the conclusions of the study as they relate to the research questions. The limitations of the study will be then be explained and the chapter will conclude with recommendations and suggestions for further research.

5.2 SUMMARY OF THE LITERATURE REVIEW

The literature review began by discussing the theoretical framework employed in the study. The theoretical framework for the purposes of the study was the Community of Inquiry Framework (CoI) (see section 2.2) developed by Garrison et al (2001). This framework was developed to guide both the research into, and the practice of, online learning. The CoI argues that, if online learning is to be successful, it is essential that three presences be created in the online learning environment. These presences include the social presence, the cognitive presence and the teaching presence. The social presence (see section 2.2.1) refers to the ability of learners to be socially and emotionally present in the online learning environment, while the cognitive presence (see section 2.2.2) refers to the ability of learners to engage critically with each other in the online learning environment. The teaching presence (see section 2.2.3) encompasses the design, facilitation and direction of both the cognitive and social processes in the online learning environment.

This was followed by a brief overview of LMSs. The researcher provided several definitions of LMSs (see section 2.3.1) and then proceeded to discuss the meaning of
LMSs in the context of the study. In the context of the study the term LMS was defined as:

A software support tool that serves both the academic and administrative functions of an institution of higher education. Academic functions include, among others, the uploading and delivering of course material and assessments, including the use of pedagogical tools such as discussions forums and blogs to facilitate interactive dialogue between student and lecturer. The administrative functions include the tracking and monitoring of achievement goals, presenting important data to management and assisting in important functions such as uploading course calendars, students’ marks and so forth.

Thereafter the LMSs available in the market today were briefly discussed (see section 2.3.2). It emerged from the discussion there are several LMSs in the market but, despite the variety of vendors, most of them offer the same essential tools. The presence of LMSs today was then discussed (see section 2.3.3). This discussion highlighted the fact that LMSs are present throughout the world and that 90% of distance education programmes currently use an LMS. In view of the fact that Unisa was the distance education institute which was the focus of this study, the following paragraph examined the LMS currently being used at Unisa (see section 2.3.4). This discussion highlighted the fact that the LMS currently being used at Unisa is based on the Sakai community source technology and is generally known as myUnisa. myUnisa was launched in January 2006. As an LMS myUnisa offers both academic and administrative tools, including discussion forums, announcement tools, wikis and blogs, e-portfolios, tools for uploading and submitting assignments and so forth.

The main advantages that LMSs offer were then discussed (see section 2.4). In the discussion the researcher grouped the primary purposes for which LMSs may be used into four categories. These four categories were based on relevant literature and included:
Category 1: Support Tool for Teaching and Learning,
Category 2: Access to Information,
Category 3: Immediate Access to Communication with Students and
Category 4: Administration.

The first category was related to the ability of LMSs to serve as a support tool for teaching and learning, while the second category was related to the ability of LMSs to offer tools for lecturers in terms of which to upload information and material regarding their courses, which students can then access. The third category was related to the fact LMSs offer immediate access, enabling students and lecturers to communicate with each other. The final category deals with the issue of administration, with LMSs being able to facilitate the administrative aspects of courses, including the posting of announcements about examinations and assignments, monitoring students’ performance, posting calendars pertaining to courses and so forth.

The challenges regarding the use of LMSs were then discussed (see section 2.5). It became apparent in this discussion that the challenges that lecturers experience in using LMSs had been documented in the literature and included lack of time, fear of using technology, lack of motivation as regards using the LMS, difficulties in using the LMS and the lecturers not seeing any value in their use of the LMS. Based on the underutilisation of LMSs, as discussed in section 1.1, and the challenges arising from the use of LMSs, the researcher searched the literature for a benchmark for what LMSs should be doing (see section 2.6). This discussion highlighted the fact that LMSs should be used in an interactive manner in terms of which students should interact with both the lecturer and the course content. This paragraph emphasised that the tools that are housed in the LMS should be used in such a manner that students are encouraged both to engage in problem solving in conjunction with their classmates and to think for themselves. The discussion further highlighted that, by allowing students to engage in this type of communication and activities, both self-regulated learning and social interaction can occur, which is important for adult learning.
In view of the fact that this study took place in an ODL institution, the relationship between ODL and LMSs was then discussed (see section 2.7). This discussion highlighted the fact that a relationship between ODL and LMSs does, indeed, exist. ODL aims to bridge the distance between the student and the institution in question. However, distance in this context does not refer to geographical distance only, but encompasses economic, social, educational and social distances. Thus, the relationship between ODL and LMSs becomes apparent as LMSs are able to bridge the distance between the institution and the student. If students have access to the internet they are able to access the LMS immediately. This access, in turn, will enable students to access their lecturers and other classmates, their course materials as well as the administrative aspects of their courses, such as examination timetables, assignment due dates, and so forth. This instant access bridges the distance between the student and the institution as students do not have to rely on time delaying mechanisms such as post, telephone calls, faxes, and so forth.

The literature review concluded with a discussion based on the debate on the future of LMSs (see section 2.8). This debate centred on the notion of using a PLE as opposed to an LMS. Proponents of PLEs argue that they are more flexible than LMSs and offer the users the opportunity to interact with other users who do not necessarily belong to the same institution of higher education. They also argue that PLEs afford students the freedom to personalise and control their own learning. For the supporters of PLEs, LMSs are restrictive in nature because students are able to communicate with others students from the same institution of higher education only. In addition, students are able to use only those tools that are available on the LMS. On the other hand, supporters of LMSs argue that LMSs are the better option than PLEs, as they create consistency for the students because all the students have access to the same system and tools. However, despite the argument regarding the future of LMSs, the fact that LMSs are still present at universities, both locally and globally, they offer many advantages and yet they are underutilised has meant that research in this area is necessary. In addition, the
researcher could not find much research available regarding the use of LMSs in South Africa.

After the literature review had been conducted the researcher went into the field to ascertain the situation at Unisa regarding the utilisation of LMSs. A summary of the empirical study now follows.

5.3 SUMMARY OF THE EMPIRICAL STUDY

Several themes related to the research questions emerged from the interviews. The first main theme was that of administration. It became apparent from the participants’ responses that the main reason why the participants used myUnisa was to facilitate the administrative aspects of their courses. They made use of two main tools to do this, namely, the announcement tool (see section 4.3.1.1) and the M&D student activity tool (see section 4.3.1.2).

The next main theme to emerge was that of teaching and learning, with the participants explaining that they used the discussion forum (see section 4.4.1) to observe what students were discussing with each other regarding their courses. It was concluded that the discussion forum served as a tool to keep the participants “in the loop” about what was happening in their courses.

The theme of independent learning (see section 4.4.2) highlighted that the manner in which the participants were using the discussion forum on my Unisa enabled independent learning. The participants explained that they observed the students’ activities in the discussion forum and responded only when they noticed that students were misinforming each other regarding the questions and queries related to the course in question. The next themes to emerge from the data focused on the reasons why the participants used myUnisa. The main response was that myUnisa provided the participants with immediate access to communicate with their students (see section 4.5).
Other themes that emerged from the data included themes related to the challenges the participants experienced when they used myUnisa. The first challenge pertained to the lack of student access to the internet (see section 4.6.1), while the other challenge to which the participants referred was a perceived lack of skill on the part of the lecturers themselves (see section 4.6.2). In terms of the next challenge regarding their use of myUnisa, the participants explained that they were used to doing things in the traditional way (see section 4.6.3). They explained that they were comfortable with reading material in the printed form and teaching their students face to face. The final challenge to which the participants referred was that of an excessive workload (see section 4.6.4) with the participants explaining that they had many tasks that they needed to complete in order to do their jobs and that this, in turn, made the use of myUnisa challenging at times.

The final themes that were discussed related to the recommendations which the participants offered regarding the use of myUnisa. They indicated that they believed that it was important that training and support be provided to students (see section 4.7.1). This discussion highlighted the need for the university to provide students with access points to the internet and also to provide students with training on how to use myUnisa. They also indicated that training should be provided for lecturers (see section 4.7.2) and that this that training for lecturers be ongoing and that it include follow-up sessions. They were clearly of the belief that this type of training would help lecturers remember how to use myUnisa. This, in turn, would be more valuable than once-off training.

The document analysis (see section 4.8) revealed that there was a correlation between the data which had emerged from the interviews and the data taken from myUnisa. When the researcher compared the two sets of data she found that two of the teaching and learning tools that the lecturers had indicated that they used the most frequently, namely, the announcement tool and the discussion forum, were also higher up on the list of the teaching and learning tools taken from myUnisa.
5.4 SYNTHESIS OF THE RESEARCH FINDINGS

The synthesis of the research findings will investigate both the similarities and the contradictions between the literature review and the findings from the empirical study. The researcher will do this by discussing all the themes that emerged from the empirical study (except the themes based on the recommendations as these will be discussed in section 5.7) in terms of how these themes relate to the literature.

The first similarity between the literature review and the findings from the empirical study that became apparent was related to the reasons why lecturers use LMSs. The reasons why the participants in the empirical study used myUnisa were grouped into administration (see section 4.3.1) and teaching and learning (see section 4.4). The literature also highlighted administration (see section 2.4.4) as one of the reasons why lecturers use LMSs, indicating that LMSs may be used to facilitate the administration of a course. Simonson (2007:7) maintains that LMSs help both students and lecturers “with course administration and allows teachers to manage their classes, assignments activities, resources and to post announcements”. The findings of the empirical study were in agreement with this statement as the participants had mentioned that the main reasons why they used myUnisa were to post announcements regarding their courses and to update their work with M&D students (see sections 4.3.1.1 and 4.3.1.2). As regards the issue of administration and the way in which it relates to the CoI framework, which was the lens for this study, the researcher found that all three presences, namely, the social, cognitive and teaching presences (see sections 2.2.1, 2.2.2 and 2.2.3) were absent when the participants facilitated the administrative aspects of their course. Despite the fact that the participants were physically online when they carried out their administrative tasks, not even the teaching presence was present because there was no “design, facilitation and direction of cognitive or social presences” (Garrison & Arbaugh 2007:163).

The teaching and learning purposes for which the participants used myUnisa involved the use of the discussion forum (see section 4.4.1) and the participants encouraging students
to engage in independent learning (see section 4.4.2). The participants used the discussion forum to observe what their students were discussing among themselves about their courses and the participants responded only when they noticed that students were misinforming each other about their courses. Thus, the discussion tool was being used for two reasons - firstly, to observe students’ discussions and, secondly, to encourage independent learning. This corresponds with the literature, which states that LMSs may be used as a support tool for teaching and learning (see section 2.4.1). Anderson (2008:17) points out that LMSs may “be used to determine learners’ needs and current level of expertise”. It emerged from the empirical study that the discussion forum enabled the participants to observe the learners’ questions regarding their courses (their needs) and also to observe their responses to each other (their level of expertise) and then to assist learners only if they noticed that they were misinforming each other. Thus, the social presence, cognitive presence and teaching presence of the CoI are all evident in the use of the discussion forum.

The social presence was evident because the learners are able to project themselves socially in the discussion forum (see section 2.2.1), while the cognitive presence was evident because the participants mentioned that the students interacted with each other and were accorded the freedom to do so, thereby exploring and exchanging information. This, in turn, fits in with the categories and indicators of the CoI (see section 2.2, table 2.1). Lastly, the teaching presence was evident because the participants facilitated and directed the instruction by guiding the students when they noticed that the students were missing the point. This, in turn, fits in with the categories and indicators of the CoI framework (see section 2.2, table 1). The self-directed learning theory (as discussed in section 2.6), which is described as a “self-initiated process of learning that stresses the ability of individuals to plan and manage their own learning and to grant learners personal autonomy in the learning process” (Cafarella 1993:25), is also evident in the use of the discussion forum, namely, in the way in which the participants allow students to engage independently in the discussion forum before they offer guidance and direction. This is extremely positive in the context of Unisa, which is an ODL institution with the learners being separated from both their lecturers and other students and, thus, engaging in this
type of learning may assist them to become independent learners - an integral aspect of being an ODL student and adult learning.

The next link between the literature and the empirical study was to be found in the fact that both the literature and the empirical study described LMSs as offering the opportunity for the participants to communicate with students immediately (see sections 2.4.3 and 4.5 respectively). In the empirical study the participants mentioned that myUnisa helped them to communicate and reach their students immediately while it emerged from the literature study that LMSs are useful for communication and collaboration as well as interaction between students and lecturers (Lonn & Teasley 2009). Although the participants in the empirical study mentioned that myUnisa enabled them to communicate with their students immediately it was discovered that the nature of this communication was generally administrative and involved due dates of assignments, availability of tutorial letters, informing students of discussion classes and so forth. The three presences of the CoI were again absent in the manner in which the participants communicated with students when the communication was initiated by the participants. On the other hand this immediate communication between the participants and students can be linked to the discussion on the relationship between ODL and LMSs (see section 2.7). This discussion highlighted the fact that LMSs can serve as a tool to bridge the distance between the student and the institution. The participants explained (see section 4.5) that myUnisa helped them to access their students immediately, thus implying that distance is not a barrier if the LMS can be accessed.

In terms of the challenges regarding the use of LMSs there were some similarities between the literature review and the empirical study. The literature (see section 2.5) highlighted that lecturers’ use of LMSs is often minimal because of a lack of time (Christie & Jurado 2009; Cant & Bothma 2011; Morgan 2003). In the empirical study workload and a lack of time (see section 4.6.4) were also identified as challenges facing the lecturers with the participants explaining that their jobs required of them to shoulder numerous responsibilities and that this made it difficult to access myUnisa frequently. According to the literature (see section 2.5), the underutilisation of LMSs are related to “lack of
understanding of technology and the LMS being difficult to use” (Cant & Bothma 2011, Morgan 2003).

The empirical study showed that the participants were experiencing similar challenges and they explained that they, and also their colleagues, appeared to lack the skill required to use myUnisa to its full potential (see section 4.6.2). They referred to experiences where colleagues had telephoned them to ask for assistance or had asked the administrative staff for assistance in using myUnisa. In the empirical study the participants also mentioned feeling comfortable with a traditional way of doing things (see section 4.6.3). They explained that they were comfortable with reading material in printed form and teaching students in face to face. However, it is significant that there was apparently no difference in the way in which those participants who expressed fear as regards moving into the new era and using technology used the LMS as compared to those who did not express this fear. This is in alignment with the one reference in the literature to a study conducted by Cant and Bothma (2011) - also at Unisa, but in the College of Economic and Management Science. They found that the participants in their study had manifested a “fear to use the technology”. The final challenge that emerged from the empirical research but which was not found in the literature involved a lack of student access to the internet (see section 4.6.1). The participants in the empirical study mentioned that they were concerned about their students, especially those living in the rural areas who did not have access to the internet and indicated that a very small percentage of their students were ever present online. The researcher suspects that this problem may be unique to the South African context where it is a reality that many people still live in rural areas and do not have access to the internet.

The information above highlights that there are links between what was discovered in the literature review and the findings of the empirical study.
5.5 CONCLUSIONS

The aim of this study was to investigate the utilisation of LMSs. The literature documented (see section 1.1) and the empirical study revealed that there is an underutilisation of LMSs. The conclusions of this study will be expressed in terms of answers to the research questions.

Main research question: How do lecturers use learning management systems at an ODL institution in South Africa?

It emerged from the empirical study that lecturers use LMSs in a limited way, while it would appear that administration activities take precedence over teaching and learning activities. Three main tools on the LMS only were used, namely, the announcement tool, the M&D student activity tool and the discussion forum. The announcement tool and the M&D student activity tools were used primarily to facilitate the administrative aspects of courses and it emerged from the data that the LMS was not used intentionally by the participants for teaching and learning. Even when there was discussion in the discussion forum, which tended toward teaching and learning, this discussion was always prompted by the students. Thus, when teaching and learning did take place, even minimally, it happened by “incidence”. It appeared, therefore, that the LMS was used more for compulsory activities, such as uploading the activities of master’s and doctoral students, which was often ordained by management. The lecturers also used the LMS to alert students to important information. Thus, it emerged from the lecturers who were interviewed that the LMS was used minimally and was being not exploited to its full potential.

Sub-research question 1: What are the primary purposes for which LMSs are used?

This question was answered by referring to both the empirical study and the literature review. It emerged from the literature review that the purposes for which LMSs are used
can be broadly grouped into four categories. In terms of the first category (see section 2.4.1) LMSs can be used as a support tool for teaching and learning with writers such as Aydin and Tirkes (2010) and Tu et al (2012) pointing out that LMSs may improve learning and help learners to achieve their learning outcomes.

The second category (see section 2.4.2) highlighted that LMSs are a useful tool which can serve as a host for holding information that lecturers can upload and students can download. Lonn and Teasley (2009:686) highlighted that most LMSs are used to distribute and retrieve materials.

The third category (see section 2.4.3) highlighted that LMSs may facilitate immediate communication and collaboration between students and lecturers while the final category (see section 2.4.4) highlighted that LMSs may be useful in that they may be used to facilitate the administrative aspects of a course. These administrative aspects range from posting announcements and managing class activities to gaining access to online registration and schedules (Simonson 2007, Vovides et al 2007). In short, the literature highlighted that LMSs are useful as regards acting as a support tool for teaching and learning, facilitating the administrative aspects of a course, uploading and retrieving materials and enabling communication between students and lecturers.

It emerged from the empirical study that those lecturers who were interviewed used myUnisa for similar purposes as documented in the literature. It was discovered that the lecturers made use of the following three main tools on myUnisa to administer their tasks, namely, the announcement tool, the discussion forum and the M&D student activity tool. The lecturers explained that they used the announcement tool to remind students about due dates for assignments, to alert students to tutorial letters that have been uploaded and to inform students about discussion classes or any other important matters relating to their courses. They explained that the M&D student activity tool was used to update and record all the work that they had done with their master’s and doctoral students. The discussion forum, on the other hand, was used by the lecturers to observe what the students were discussing among themselves. The lecturers also mentioned that they first
allowed students to engage with each other in the discussion forum before responding to them. This allowed for independent learning in the discussion forum. It became clear from the interviews that lecturers were accessing three tools on the LMS only and that the manner in which they used the LMS was extremely basic. Even in the discussion forum, where independent learning was encouraged, it was the students who initiated the discussions, with the majority of the lecturers indicating that they did not initiate discussions in the discussion forum. In short, it would seem that the purposes for which the lecturers used myUnisa tended more towards the administrative than the academic.

**Sub-research question 2: Why do lecturers utilise the learning management system at Unisa?**

The empirical research revealed that the lectures used myUnisa because it gave them immediate access to their students. They explained that they used the announcement tool and the discussion forum to do this. The lecturers explained that myUnisa was extremely useful when they needed to update students about important and, sometimes, urgent information. They furthermore explained that the discussion forum assisted them to gain an insight into the questions and comments of the students regarding their courses. It was evident that lecturers used myUnisa because it enabled them to reach the students conveniently and quickly. In addition, myUnisa gave them the opportunity to access students’ thoughts, opinions and questions about their courses.

**Sub-research question 3: What challenges do lecturers experience in using the learning management system at Unisa?**

The empirical investigation revealed that the lecturers were experiencing several challenges regarding the use of myUnisa. The lecturers explained that, despite the fact that they used myUnisa, an extremely small percentage of their students were online and they expressed a deep concern about those students who live in the rural areas. They explained to the researcher that these students do not have access to the internet and, therefore, they are not able to access myUnisa. They furthermore explained that, even if
students are able to access the internet for free at regional centres, they do not always have the financial resources at their disposal to travel to these regional centres.

This concern of the lecturers ties in with an article written by Baijnath (2013) who, in discussing the challenges and opportunities at Unisa, indicated that, while Unisa does engage in ICT environments, several challenges still exist, with the first involving “the lack of appropriate hardware in the hands of students” and the second the issue of “access” (Baijnath 2013:38). Another challenge that the lecturers indicated involved the lack of skill on the part of the lecturers themselves in using myUnisa and they explained that they sometimes had difficulty in using it. They also told the researcher that this was a problem that they felt was not unique to them but also applied to their colleagues. They explained that, at times, their colleagues would either ask the administrative staff for help or ask other colleagues for assistance.

It also emerged that one of the challenges experienced in the use of myUnisa pertained to lecturers feeling comfortable with a “traditional way of doing things” and they explained that they were comfortable with reading materials in the printed form. They also explained that they preferred to teach their students in face to face environments, rather than through technological mediums such as podcasting and videoconferencing. It became apparent that there was a sense of fear as regards using technology and venturing into a new era of doing things among the lecturers, although they did acknowledge the benefits of using online teaching.

The lecturers’ workload emerged as the last challenge being experienced in the use of myUnisa, with them explaining that they had to fulfil numerous tasks and responsibilities in order to satisfy the requirements of being a lecturer. They explained that they have to teach and, in addition, they are expected to conduct research and coordinate their markers. They indicated that this made it challenging at times to access and use myUnisa as they worked under time constraints. However, although participants expressed these challenges, they did still acknowledge that myUnisa was a valuable tool.
Sub-research question 4: What recommendations may be made as regards improving the utilisation of learning management systems?

The majority of the responses regarding possible recommendations related to providing training and support for students and ongoing training for lecturers. These emerged as themes in chapter 4 as they were clearly evident in most of the participants’ responses. The participants indicated that they felt that students should receive support from the university in terms of being provided with access to the internet. They felt that providing students with access to the internet at regional centres was not enough as students, especially those from the rural areas, did not have the financial resources to travel to the resource centres. The participants also suggested that students be offered training from the university on how to use myUnisa. The participants went on to suggest that ongoing training be provided to lecturers on the use of myUnisa. They explained that once-off training would not be sufficient but that training should rather be ongoing and involve follow-up sessions. They indicated that ongoing training would help them remember how to use myUnisa and enable them to practise the skill involved in using myUnisa on a regular basis.

5.6 LIMITATIONS OF THE STUDY

Despite the care with which this study was prepared and carried out the researcher acknowledges that it does have its limitations. The first limitation is related to the population size that was sampled. For the purposes of the study the researcher interviewed a total of 10 lecturers only from the College of Education and the researcher acknowledges that this sample does not necessarily represent the views of the entire university. Furthermore, lecturers from two departments, namely, the Department of Early Childhood Education and the Department of Mathematics Education, were not available for interviews and, thus, these two departments were not represented in the study. Lastly, the researcher was limited in terms of time. Participants’ busy schedules made it extremely challenging to secure interviews with the participants. These time constraints also made the possibility of follow-up interviews to carry out member checks almost
impossible and, thus, the researcher had to conduct member checks during the interviews themselves.

However, despite the above limitations, the researcher is of the opinion that this research study can make a contribution to the literature in terms of the use of LMSs in South Africa, particularly in view of the fact that there has not been much research conducted on this topic.

5.7 RECOMMENDATIONS

The recommendations suggested in the study are related to the following stakeholders in the university:

Management:

It is recommended that management consider making the use of myUnisa compulsory for all lecturers in terms of teaching and learning, and lecturers should have to account for the way in which they use myUnisa to teach their learners. This would encourage lecturers to use myUnisa for more than just administrative tasks and this, in turn, would help to foster a culture of online learning and teaching within the university. Management should also consider providing training on the use of myUnisa to all students.

In view of the fact that the lecturers mentioned that those students who do not have access to the internet should be provided with support, the obvious recommendation would be to suggest that management strategise cost-effective ways to help students gain access to the internet. However, further investigation showed that Unisa is involved in actions to try to deal with the problem of students' lack of hardware (computers, laptops) and access to the internet. These actions include

the Student Laptop Initiative, which entails the issuing of a tender to find a service provider that will provide a laptop with reasonable specifications at
a reasonable cost. The university is also negotiating with the major mobile phone providers to assist with the provision of a 3GB data plan at no more than a hundred South African Rand. A further initiative commissioned from the university’s ICT department is to evaluate suitable and cost-effective tablet devices (Baijnath 2013:39).

These initiatives on the part of the university imply that the university is aware of the realities of the South African context and is trying to assist with the unfortunate realities.

Lecturers:

It is recommended that lecturers try to initiate more teaching and learning activities on myUnisa. Even when the participants in the study indicated that they would respond to students’ questions via the discussion forum, this communication via the discussion forum was always initiated by students. For those lecturers who are comfortable with the traditional way of doing things, there are support structures available for them within the university to help them to use myUnisa more creatively. An example of such a support structure is the Directorate for Curriculum and Learning Development which will assist with the design and development for taking a course and teaching it online. It is also recommended that lecturers actively encourage the use of myUnisa among their students, even if a small number of students only are accessing myUnisa at present. One of the participants mentioned in the interview that he recruits students to use myUnisa via telephone and such innovative ideas should be shared and tested among lecturers.

5.8 SUGGESTIONS FOR FURTHER RESEARCH

Suggestions for further research include investigating if lecturers receive ongoing training as the participants suggested if it will actually result in their using myUnisa more frequently. The lecturers mentioned that the students' lack of access to the internet meant that an extremely small number of their students went online. It would be worth researching whether this influenced lecturers’ motivation to use myUnisa. It may also be
useful to investigate whether student numbers on myUnisa would increase if lecturers initiated discussions and included creative tools such as wikis, blogs and so forth. The data extracted from myUnisa may also be a useful starting point for researchers as it may be used to select four or five of the most popular tools listed in the data and research may then be carried out to investigate how these tools are used.

5.9 CONCLUSION

The purpose of this research study was to investigate the use of LMSs in an ODL higher education institution in South Africa, as the literature highlights the fact that LMSs are underutilised in institutions of higher education. The empirical study carried out in this study showed that the lecturers who were sampled in the study used the LMS for administrative purposes rather than for teaching and learning purposes. Even when there was teaching involved via the discussion forum the responses from lecturers were prompted by posts on the discussion forums by students. It appeared that the lecturers’ use of myUnisa was extremely limited. The empirical study also showed that the unique context in South Africa, that is, limited access to the internet and hardware in certain areas, resulted in a small number of students accessing myUnisa.

Despite this, ICT offers a wealth of opportunities and may catapult universities into producing students who are fit for the technologically driven world in which we find ourselves today. It is, thus, essential that lecturers continue to explore how to tap into and use the more creative tools available in their LMSs, for example wikis and blogs, and that they use LMSs for teaching and learning purposes rather than for administrative purposes only. In conclusion, the advice of Selwyn (in Blin & Munro 2007:476) to the effect that there is a “growing need for the education community to account for the distinct digital disconnect between the enthusiastic rhetoric and rather more mundane reality of university ICT use” may be extremely useful for universities. As mentioned in the opening paragraph of chapter 1, ICT has revolutionised the world in which we live and it would be both strategic and beneficial for all stakeholders in universities to consider using ICT in more creative ways than they are doing at present.
Reference list


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INFORMED LETTER OF CONSENT

Title of research: Lecturers’ utilisation of institutional learning management systems in an ODL higher education institution in South Africa.

You are being invited to participate in a research study about lecturers’ use of Learning Management Systems (LMSs). The purpose of this research study is to determine how lecturers utilise LMSs at the University of South Africa (UNISA) and to make recommendations of how LMSs may be better utilised. This study is being conducted by Ms Faiza Gani from the Department of Language, Arts and Culture Education at Unisa. The study commenced in February 2012 and will conclude in February 2013.

Participation in this research study means that you agree to be interviewed by the researcher for a maximum of 30 minutes on the topic under investigation. A possible follow-up interview to confirm the researcher’s findings may also be required. This follow-up interview may also last for a maximum of 30 minutes. All responses from the interviews will be recorded on a voice recorder.

There are no known risks or discomforts if you decide to participate in this research study. In addition, there will be no costs to you for participating in the study.

There is no compensation for participating in this research study. However, the researcher envisages that the findings of the study will be beneficial in informing lecturers and other stakeholders on how better to utilise institutional LMSs.

The findings of this research will be anonymous. No one will be able to identify you or ascertain which were your answers. In addition, no one will know whether or not you participated in the research study.
All findings of this research study will be used to write up a mini-dissertation, which is part of the requirements for the researcher to obtain her Med. You will be debriefed as regards all findings emanating from study in the possible follow-up interview or via e-mail before the findings are written up.

This research study has been approved by the relevant bodies for ethical clearance at the University of South Africa.

Your participation in this study is voluntary. By signing this consent form you are voluntarily agreeing to participate. You are free to withdraw from this research study at any given point, without any penalty or prejudice.

If you have any questions about the study, please contact:

Miss Faiza Gani
Telephone number: 0124292869  E-mail: ganif@unisa.ac.za

Thanking you in advance for your willingness to participate in this research.
STATEMENT OF CONSENT:

I have reviewed the information outlined above. I understand that my participation is voluntary and that I may withdraw from the research study at any time without any penalty or prejudice.

By signing below, I am indicating that this research study has been explained to me, that I understand it, and that any questions I have about the research study have been answered. I am indicating that I understand how the findings of the research study may be used and how my privacy will be protected. By signing this form, I am agreeing to participate in the research study.

I ACKNOWLEDGE THAT I HAVE READ THE ABOVE EXPLANATION OF THIS RESEARCH STUDY, THAT ALL OF MY QUESTIONS HAVE BEEN SATISFACTORILY ANSWERED AND I AGREE TO PARTICIPATE IN THIS RESEARCH STUDY.

Signature of research study participant                                          Date

_______________________________                                       _____________
Appendix B

RESEARCH ETHICS CLEARANCE CERTIFICATE

UNISA  
college of education

Research Ethics Clearance Certificate

This is to certify that the application for ethical clearance submitted by

Ms F Gani (46075526)
for a M Ed study of limited scope entitled

Lecturers’ utilisation of institutional learning management systems in
an ODL higher education institution in South Africa

has met the ethical requirements as specified by the University of South Africa
College of Education Research Ethics Committee. This certificate is valid for two
years from the date of issue.

Prof CS le Roux
CEDU REC (Chairperson)
lrouxcs@unisa.ac.za

23 October 2012

Reference number: 2012 OCT/ 46075526/CSLR
Appendix C

INTERVIEW GUIDE

General Questions

1. For how many years/months have you been a lecturer at the University of South Africa (UNISA)?
2. How many modules do you teach? How many students are registered for this module?
3. What contribution do you think online teaching and learning has to make to Open and Distance Learning (ODL) learning?

Specific Questions related to topic under investigation

4. At Unisa we currently use myUnisa, which is a Learning Management System. What do you understand by the term Learning Management Systems (LMSs)?
5. How often do you use myUnisa?
6. For what purposes do you use myUnisa?
7. Do you teach any of your module/s through myUnisa? If yes, please explain how?
8. Have you placed any of your course materials online? If yes, what are learners expected to do with the materials?
9. Do you make use of the discussion forum on myUnisa? If yes, for what purposes?
10. Do you encourage students to communicate with each other on myUnisa? If yes, explain the nature of this communication.
11. What challenges do you experience when using myUnisa?
12. If you did not have to use myUnisa for compulsory aspects such as uploading of the assessment plan, would you still use it?
13. Do you feel you have the confidence to use myUnisa?
14. Are there any recommendations you would like to make regarding the use of myUnisa?
Appendix D

TRANSCRIPTION OF AN INTERVIEW

Q: Okay, let's start. So, Prof, for how many years have been you working at Unisa?
A: I have been at Unisa for 26 years.
Q: Okay, and that is fine. Always in a lecturing post?
A: Always in lecturing. I actually went through the ranks, I started as a very junior temporary research assistant, moved up to junior lecturer, lecturer, senior lecturer and I was promoted in 2008 to associate professor.
Q: Okay. So, Prof, do you teach as an AP working from home?
A: I am working from home, I teach in a huge …, in an honours course. The module is known as XXX, so it is a combination of XXX and XXX. We've got 4600 students. It is an actually a ridiculous amount, you can't, in my view, do quality work with such a massive lot of students, be it on satellite. You must stop me if I give you too much information.
Q: No, not at all.
A: Can I talk?
Q: Yes.
A: Within our team, Prof XXX and XXX, they are much more techno freaking than me. But, so, we have explored the satellite broadcast, it worked much better than the discussion classes because of the vastness that you can cover, you know. It is a rich experience and it is also not so inconvenient for lecturers going away for the whole week, you know, to all over the country, to find that, when you go to discussion classes, that a lot of the venues are inadequate and they are not, people can't fit in properly and it is disarray. So, I thought discussion classes, ag the satellite were working wonderfully, because they made DVDs and then they can watch it at regional centres, but now, just to discover that it is a very costly medium, so they actually discontinued it.
Q: Okay. That is fine, then, I also want to ask, Prof, because at Unisa, our context is a little bit different because we are ODL?
A: Ja.
Q: And we have been talking about the university going toward more of an online approach to teaching and learning?
A: Ja.
Q: So, for you personally as a lecturer, do you see any benefits in online teaching and learning, for our environment?
A: For our environment, good, my response would be varied. Of course, we live in a digital age, and I think there are a lot of benefits. Just the past few months, the students had the big struggle with the postal strike and the assignments getting to the university and, of course, because of the vastness of our course, we’ve got a lot of external markers and it is very difficult to control the quality, one marker, in particular, was doing a very hasty job, so it was, so there was miscalculations, he was far too rigid and strict and what not and not writing proper comments. So, my experience was that, then I just told the students e-mail me, scan me the assignment or just e-mail and then I mark on the screen, not the way that the big fundis, but just a document with comments and it was like quick, quick, and they were a lot more satisfied. But, having said that, we’ve got in our course, particularly, we’ve done research on this, there is not more than 50% of the whole bunch of honours students that are really online. We’ve got a whole huge rural component and it is not because the students are kind of backwards or whatever, it is just simply the environment, not reliable electricity, not internet connection. I mean, having discussions with my husband on this all the time, and he said, “No, but they can afford TVs and satellite dishes and so on.” But, when we recently visited XXX, if you go into the rurals, you opt into problems, whether you can buy internet or not, it is simply not available. So, I think, yes, Unisa should be moving but they must also then support the rural students at the local centres. Maybe, if we could direct the students and say, “Okay, this is now story, everything is online, but Unisa is going to take you by the hand in the sense. Go to your regional, closest regional centre and they will assist you.” But Unisa hasn’t even got so far, you know, and that is my big grudge, to just announce now it is going online without preparation and without any support.
Q: Okay. For the students?
A: For the students.
Q: So, for you, Prof, your concern is more access for the students?
A: Yes.
Q: And for yourself, personally, in terms of being a lecturer?
A: Yes, of course, sitting at home has got its challenges. The mobile Unisa, I can’t begin to tell you how many times I spent at ICT at requests and, whatever, and even the ICT support is not adequate, some of the guys know, either don’t know how to connect the modem for the outside people. So marking, for instance, on screen, with the mobile Unisa facility, I don’t see how it is going to work, unless they make more flexible and say they can simply … the word document, you see. But, exactly how it is going to work, ja, I also feel, don’t feel ready, I haven’t attended any of those on-screen, I don’t simply don’t have a big interest.
Q: Personally?
A: Ja.
Q: Okay, Now, Prof, how often do you use myUnisa?
A: I suppose I have to be very honest about this, I, regularly, let’s say once a week I put up the activities of my M&D students, I am very conscientious with those.
Q: Okay.
A: And I check, of course, when we have done the tut letters, whether it has been uploaded and so on. So, it is more for the post-graduates, for the honours, whenever there are problems I would look into it. Actually our primary, we’ve got an arrangement in our team, that we take turns, two months per year for each lecturer to attend to the discussion forum because it is not, you know, having to service all the e-mails and do your own personal research and co-ordinate the markers, etc, it is time consuming, maybe it is not really my responsibility. There are, I guess, if it is really your, I think there are a lot of people whose specific interest it is to go to participate a lot in the discussion forums. Two of my colleagues in this course, they are much more into that than I am. SO, it is once a week, not every week, let’s say twice a month.
Q: Okay.
A: Ja.
Q: And then when you go there, Prof, what are you, observing the discussion forums?
A: I am observing the discussion forums. My initial understanding of discussion forums was that it is more for the students to discuss among themselves. And we actually put in
our tut letters and also announcements that if there is specific problem, they must attend, they must make us aware of that by sending it directly, direct e-mail, and say “Please, we are struggling with this, look at the discussion forum”. And I must say in our course, with the two kind of disciplines together in a course, the XXX guys who are much more clued up there, they would alert us.

Q: Okay.
A: There is a specific problem in the XXX. Won’t you go and I forgot to say the announcement function is very useful.

Q: Okay.
A: Because this year we have discovered that there was a hiccup with one of the tut letters, the guidelines that we sent to them to complete assignment and, because we work in teams and I was not directly responsible, but one of my colleagues, she actually got confused, she did the proper job and then she sent the wrong document to the typist.

Q: Oh, I see.
A: So it was kind of the previous year’s thing and it was just one question and we could, luckily, rectify it to some extent on the myUnisa and say this is an errata, please attend to that, but for all the others who were not online, we had to make a photocopy and whenever their assignments came we put an erratum in as a memo, as a guideline.

Q: Into each assignment?
A: Into each assignment so that they, at least, have after they have completed the correct information. But, suppose all the students are online, that would be absolutely beneficial, so that you could correct a mistake like this immediately.

Q: Ja. And then, Prof, if you observe those discussion forums, do you respond to what they are saying?
A: Ja, just in, I must be very honest, just in one or two lines, I won’t enter into a big discussion, you see, because for the reasons that it is not really my interest, to my mind it is a bit time consuming but I think, whenever there is a problem, I would definitely respond.

Q: To the problem?
A: To the problem.
Q: And the discussions that students have among themselves, is it more about the content of the module, or is it more general? What is, like, the nature of those?
A: You know, the majority, not that I can say that my opinion is the opinion but the majority of the cases like to chat on general things. Here and there when there is a problem they would ask, but I think that is more the exception, it is more about general things. The things that I have discovered.
Q: Like more, like exams and something like that?
A: Exams and when is this coming up, and have you completed your assignment, like general chit chat, like in an ordinary university students would among themselves have discussions. So not so many grapple with the content itself, on the discussion forum.
Q: Okay, and do you initiate any conversation on the discussion forum?
A: On the discussion forum, I must be very honest, no.
Q: Okay, that is fine. And then your course materials, are any of them online? The courses that you ..?
A: No, well, of course, they are online in the sense that they, that all the tut letters are uploaded on the myUnisa, but it is due now for the time being.
Q: Okay, that is fine. The challenges, Prof, when you use it, are there specific challenges you encounter when you have to use it, I mean?
A: The big thing for me is that it is, that is really time consuming, especially when you work from home and you've already got slow internet and things and you are bugged down with a lot of e-mails and then you have to go in and many times, I must say, this is my, this is my big gripe also, is the system at Unisa. I don’t think it works optimally, you know, many times when I want to put stuff, then they say myUnisa is not available, or you see everything freezes and that kind of thing and that frustrates me tremendously, then I would put it off. You know, it is kind of the overall association for me, is not that it is so positive, so I would rather avoid it.
Q: Okay and I mean that you are saying that support for technical issues?
A: No, it is not there. You have to bring in your computer and sit in for days and so on, the knowledge base of the, the know how of, the people in the ICT is really very limited. There are a few individuals that can really help you and the other guys are just, I believe it is, to a large extent, outsourced, it is not Unisa people based here. And, in a sense, I
will look into, I want to laugh at the back of my hand that all these declarations, we are going digital but whether the whole system will be able to carry it, because many times when there is a due date for assignments to be submitted, then everything freezes or when they work on the marks after exams and so on. So I am bit, you know, I take it a bit with a pinch of salt, the official talk of we are this big institution and we are going online and whether it is really going to be a feasible, workable situation.

Q: Okay. Does that influence your usage of myUnisa?
A: Yes, absolutely. I mean I am a bit impatient, I am a hurried person and, if I struggle to get into this site and it freezes, then I would rather leave it, you know. Maybe it is to do with the things, with the fact that I work from home, mobile Unisa, architecture, maybe it is not true for the people working on campus.

Q: Okay.
A: And then the other thing, my personal disinterest, you know, I am kind of more of a traditional academic and I do my students’ chapters. Of course, I do comments on the document, but, if it is a thick document, I prefer to print it out and read it first on paper. So I am a bit old school also.

Q: Okay, but is it because you scared to make the paradigm shift?
A: Am I uncomfortable?
Q: Or are you just ..
A: I prefer, I just prefer, you see, maybe it is also because I am not born in this era, if I just, in comparison, view my younger kids, I mean the screen generation, you know. I feel my eyes get tired, I feel I have stared at this screen for the whole day already, I am not going to do more online, you know, that kind of thing, maybe, I don’t, you know, I don’t think I’m, maybe I am not comfortable. It is not part of my comfort zone, although I realise the need for it.

Q: The need for it. Okay. It is fine. Any recommendations Prof, in terms of …
A: I would really suggest the, you know, I see Unisa being here for 26 years, that is more a line like the guys here suggesting stuff. I mean they don’t know what is going to happen there and they don’t necessarily check out. So it is kind of this hierarchy but it is a …………… line, there is not much coordination. So, I would really suggest that the Vice Principals, on top of all these official plans going online etc, must also talk to the people
at grassroots, working in the ICT, see how it works, talk to all the lecturers and find out what are the realities on the ground, you know. I think that will be my main ..., and then update the infrastructure.

Q: Yes.
A: Because I've a feeling that our infrastructure is not strong enough, based on my experience of when there are due dates, you know that everything freezes and hangs. So, that would be my main recommendation.

Q: That they look at. And, Prof, do you ..., I know you have mentioned that about only 15% of your students are actually online?
A: Yes.

Q: Do you think if more students are online, say 80%, would that make a difference in terms of your interaction with the system?
A: Absolutely. You know, I am a really ........... heart and I can't see how we, how Unisa, can just make declarations and don’t carry the social responsibility of teaching the rural people. I mean it is kind of in contradiction with we are the African University, it is so inhumane to just abandon the people and not take them by hand. Like I said earlier, if the regional centres are in place and we could just say, okay, guys, we live in the digital era, go to your regional centres, there is support for you, but I don’t think it is working yet.

Q: And then, Prof, by support, do you mean like they are going to have the access to the internet?
A: They are going to have the Internet access.

Q: At the regional centres?
A: Yes, you know I've got a feeling that, in South Africa, we are not as connected as we think we are. Like, I attended a conference in, when was it, 2005, in Daresalaam. Even in Tanzania, the people on every street corner, you find internet cafés affordable, the people don’t necessarily have to own laptops and so, they can go there and work and do their work and so on. We don’t have that in South Africa. It is fairly expensive if you go to the sparse internet cafés, you know, I am so, I don’t think our realities really match but I also say, on the other hand, you can’t keep the very sophisticated students back because of that, you know. So, we are in a sense having to cater for both, maybe as an interim and just prepare people, you know, thereof.
Q: So those are the main recommendations, is for students to have access. Basically to give them the support? And I think for management to take cognisance of what is actually happening on the ground.
A: Yes.
Q: Level?
A: Yes. Not just make funny declarations, you see. I mean, if you say you want to build a house, there is a whole lot of strategic moves that you have to do you draw up plans, get permission from the municipality etc. They can't just say we are going online and not look at steps to get there. So, I am not against, for pete’s sake, I can’t say, you know, I am a kind of a person for the take people by the hand and support, taking also that social responsibility, Unisa is the only university in South Africa that I feel have that obligation almost, because we are a university of the second chance, we don’t do, who else?
Q: I understand what you are saying.
A: So, in that sense, it is my biggest gripe and then, of course, the other thing, the courses that I have attended, how to use ref works and all of those. Very useful, very useful, I think the things, I must say, to the advantage of what Unisa is doing correctly is that there are courses and one can get yourself in form. However, I still think I am a person that learn also accidently. If I am in need of this, I used to go to my secretary and say I am struggling with this, just teach me this, and that is a disadvantage of working from home, I’ve got nobody there. So, that is why I feel they must really up the support for the guys working from home.
Q: From ICT side?
A: From ICT side.
Q: Ok I think that’s about it, thanks for your time.