RURAL STUDENTS' EXPERIENCES OF ONLINE LEARNING SUPPORT IN AN OPEN DISTANCE LEARNING ENVIRONMENT

Mpho Allan Rakoma

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Department of Curriculum Studies

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Supervisor: Prof EM Bitzer

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DECLARATION

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MA RAKOMA

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Abstract

Online learning is the new form of teaching and learning delivery used by education institutions worldwide, particularly in distance learning institutions. The University of South Africa introduced online learning in 2007 as a mode of teaching, learning and student support in order to be in a position to reach all students and particularly those who live in the remotest rural areas and yet, to this date, students are inadequately using online learning platforms available. There are already a number of studies conducted regarding this phenomenon at UNISA; however, the focus has been mostly on urban students. Hence, the focus of this study was on rural students' online learning experiences at UNISA in Limpopo region. The study was informed by Moore's theory of transactional distance to determine the reported challenges and experiences of UNISA students in the usage of online learning platforms, particularly the *e-tutoring* platform. A descriptive qualitative case study, using individual interviews was used to investigate the problem. Eleven participants were interviewed and the findings highlighted both internal; those that UNISA can manage; and external problems which would need other outside role players. Most gratifying from this study was the positive attitude of participants towards online learning-that it is helpful for them and therefore need not to be discontinued. This study concludes by providing conclusions and their implications and emphasises that an effective student support for online learning could help reduce the transactional distance experienced by students and potentially increase student usage of online learning platforms.

Key words: Online learning, Open Distance Learning, Open Distance e-Learning.

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CHAPTER 1

ORIENTATION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

This study investigated the reported experiences of the usage of online learning support services, targeting the University of South Africa (UNISA) rural students in Limpopo region, currently merged and renamed North-Eastern Region. This chapter presents the background to the study, the problem statement, the aims and objectives of the study, an overview of the methodology applied, ethical considerations and the layout of the study and clarification of key terms.

1.2 BACKGROUND TO THE STUDY

The University of South Africa (UNISA), as an institution of higher education caters for students from a wide range of socio-economic backgrounds through Open Distance Learning (ODL) model. Most of its students since the 1990s are under the age of thirty. Among its students, both from rural and urban areas, there are those who study on full time basis and those who study part time. This is because a certain portion of these students works full-time while the other proportion is not; the latter is often seen on the UNISA campuses and in its Libraries.

The university mergers of 2004 established UNISA as a dedicated distance learning institution (National Plan for Ministry of Education, 2001; Commonwealth of Learning, 2007). The merger resulted in the incorporation of Vista University and Technikon Southern Africa, which was finally established as UNISA where student enrolments increased exponentially. Exemplifying this, in 2002 the enrolments were 188 744 and increased to 387 415 in 2013 but dropped to 350 810 in 2014(HEDA, 2015). Nevertheless, the enrolments remained high compared to those of a residential higher education institution. By 2015, UNISA's enrolment reached 400 000 in student head count and this made UNISA the largest ODL institution in Africa (Makoe, 2011: 176; UNISA Institutional portal, 2015; Letseka & Karel, 2015:66).

ODL institutions worldwide are increasing the trend towards online learning (Venter & Prinsloo, 2011:44; Wang, 2014). This was also highlighted by the Commonwealth of Learning (CoL) chief executive officer in her key note address at the 28th Annual Conference of Asian Association of Open Universities in China in 2014 (Kanwar & Balasubramanian, 2014).

In line with ODL institutions worldwide, UNISA had to keep abreast with new teaching and learning modalities. The UNISA 2015 Strategic Plan aimed at positioning the institution as a leading provider of higher education opportunities through open and distance learning (ODL). It also committed UNISA to an ongoing, responsive interaction with current and emerging national and international imperatives and developments with relevance to quality ODL provision (2008). Because of these commitments, more ODL innovations were developed by UNISA since 2008.

In its trial quality audit report on UNISA, the CoL (2007) encouraged the use of electronic media for supporting student learning. They raised some doubt that, given the geographic spread of UNISA students, "…we wonder how many students are able to attend face-to-face tutorial sessions on a regular basis" (CoL, 2007:7). This comment culminated in UNISA accelerating the introduction of an ODL model wherein online learning was promoted, rather than only the face to face and print delivery that was predominant. Because of this, the ODL Institute was established in 2007 by UNISA to guide and assist both lecturers and students on the use of online platforms for teaching and learning. Students had their own access challenges to online systems, but the CoL (2007) noted that though there were some digital divides, these should not prevent UNISA from moving forward (Mashile & Pretorius, 2003; Venter & Prinsloo, 2011).

Researchers at UNISA on student online learning usage such as (Mashile & Pretorius, 2003; Mbatha & Naidoo, 2010; Makoe, 2011; Venter & Prinsloo, 2011; Letseka & Pitsoe, 2014) conducted several studies. The studies were generally conducted on urban students. Inadequate usage of online technologies was found to be prevalent amongst these students, regardless of the availability of technology resources in their environments. The digital divide in the form of access to computers and ability to navigate the computer was acknowledged as common amongst the student population while there were also some snippets of positive signs regarding the use of alternative technologies like cell phones, other than computers. This study therefore focused specifically on rural students and endeavoured to understand and explain contextual online learning experiences and challenges faced by Limpopo UNISA rural students. This was done in order to identify possible contributing factors to those challenges and thereafter put effective measures in place that could enhance online learning experiences of students in the rural areas of UNISA Limpopo. Against such backdrop, UNISA would then be able to understand contextual experiences and challenges of students from both urban and rural.

1.3 RESEARCH PROBLEM

The UNISA Student Representative Council (SRC) objected to the introduction of online learning since its inception in the early 2000. By 2007 when the Commonwealth of Learning (CoL) visited UNISA for a quality trial audit, discussions with students revealed some demands for increased face-to-face tuition instead of online learning systems. This revelation was viewed by the CoL as a step backwards for ODL developments. UNISA was as a result encouraged "to put more effort in the development of *myUNISA* as the vehicle of the future for tutorial, peer group and learner support" (CoL, 2007:13). Since 2013, there was a steady shift in the position of the SRC because of UNISA's commitment to online learning and its potential benefits. The focus shifted from objections to using technology to problems students faced regarding accessibility to the Internet, suitability of tools such as smartphones or cell phones, proximity to network points and others. As a solution to these challenges, training programmes on online learning would be valuable (Chetty, 2012), but, the main challenge is the implementation of these training programmes by getting most students to the point of training. The difficult part to realise this goal is because most of these students do not have money to travel great distances to centres where the training is conducted.

For that reason, the research question generated to assist in gaining a better understanding of the problem and provide possible ideas to improve the situation was as follows: *How do rural students in the Limpopo region experience the online learning support provided by UNISA as an open and distance learning institution?*

1.4 AIM AND OBJECTIVES

Against the background as outlined, the aim of this study was to determine the reported experiences of rural UNISA students in the usage of online learning support services available in the Limpopo Region of UNISA.

In order to achieve this aim, the following objectives were set for the study:

- To explore relevant literature regarding ODL and in particular, online learning.
- To explain the context wherein UNISA was providing innovations to its online learning options.
- To determine the extent to which students are ready to utilise online learning support

services.

- To determine the challenges that students experience to access online learning services.
- To explore possibilities to provide students with opportunities for the usage of UNISA online learning services.

1.5 Research Methodology

The methodology used in this study followed a qualitative case study approach, which included the research design, data collection method, sampling method, and the data analysis approach to arrive at the final findings.

1.5.1 Study design

The design for this study was a descriptive inductive qualitative case study, embodying a cross-case analysis approach, which would enable the researcher to compare at analysis stage the similarities and differences of the two groups selected for the study (Johnson and Christensen, 2012). The study used an interpretive research paradigm because of its nature of being sensitive to the role of context (Henning, 2004:20). According to Huberman and Miles (2002: 360) interpretation clarifies the meaning of an experience. It lays the groundwork for understanding, which is the process of interpreting, knowing and comprehending the meaning of an experience.

1.5.2 Data collection

Data collection was conducted through focused, semi- structured individual interviews using open-ended questions to "obtain in-depth information about the participant's thoughts, beliefs, knowledge, reasoning, motivations and feelings about a topic" (Johnson & Christensen, 2011:202). Individual interviews enabled the researcher to get into the experiences of the participants as individuals without them "feeling intimidated by the presence of other respondents," as it would likely happen in a focus group (Welman, Kruger & Mitchell, 2005: 204). An interview guide or protocol with topics for all questions asked was compiled to guide the interview process. Eleven participants from two rural areas in Limpopo were interviewed and their responses recorded both in print and audio. The initial sample size was 12 participants and due to the repetitive nature of

the data collected, it was decided to stop the data collection process as it yielded no further new data different from the ones collected.

1.5.3 Sampling method

The study used Purposive sampling to select 2015 registered students who had already experienced online learning and were still pursuing their studies, and 2016 registered students who enrolled in online learning. The selection of students was from the Law online modules, which were amongst the range of many online modules offered in the Limpopo region of UNISA. The 2015 students were those linked to e-tutors in that current year and the 2016 student cohort were those newly enrolled in on-line modules. The purpose was to compare at the stage of data analysis the similarities and differences between these two groups. Twelve students based in the Limpopo region of UNISA were earmarked to comprise the sample, but eventually eleven students participated because of data saturation. The sample respectively consisted of six students from the 2015 enrolment list and another five students from the 2016 enrolment list. The selected research sites were in Lephalale and Giyani, but eventually due to lack of responses from Lephalale students, Sekhukhune became a replacement.

1.5.4 Data analysis

According to Miles, Huberman and Saldana (2014:70) data analysis in qualitative research is strongly advised to take place concurrently with data collection. It helps the researcher to review and re-look data collected and generate strategies for collecting new and often better data. It brings excitement and energy into the data collection process. The analysis adopted a thematic approach, which was preceded by first coding and categorisation of data. A computer analysis software named ATLAS.ti was earmarked for use but due to the inadequate training and availability of time, it was decided to abide by Saldana's advice (2009) that a novice researcher should be cautious about using computer software for analysis. Therefore, manual coding was adopted and Tesch's eight steps of inductive, descriptive open coding was chosen for use in the data analysis process (see in Creswell, 2014; Theron, 2015). It was chosen because of its detailed nature and simple way to use because it starts with the generation of topics from the text, which helps the researcher to progress easily into coding and theming. A co-coder was enlisted to participate in the generation and verification of coded data. A professional certificate of the co-coder is attached (see Addendum E).

1.6 Data quality measures

In qualitative research, quality is of the essence as in quantitative research. To achieve these, qualitative research uses the quality measures of credibility, transferability, dependability and confirmability (Denscombe, 2014). A good research is where all the steps followed in data gathering and analysis are well documented. In this study, data collected was recorded digitally and later transcribed in order to prevent loss of important information. In accordance with Lincoln and Guba (1985), credibility was adhered to by way of confirming with the participants the correctness of the transcribed text before proceeding with analysis. More of this is available in chapter 4.

1.7 Ethical considerations

In accordance with the UNISA Research Code of Ethics where a researcher would be using students or staff, it is compulsory to apply for permission from the Department concerned through a sub-committee of the UNISA Research Committee. The permission granted was only for the use of student UNISA emails (*mylife* email) in compliance with the Protection of Personal Information Act (POPI Act) for contact purposes. The University of Stellenbosch's Research Ethics Committee also granted permission to conduct this research. The ethics clearance certificates are attached.

Participants were contacted using their UNISA email addresses and those that finally responded were provided a briefing about the nature of the study, which eventuated in the signing of written consent with all participants (copy attached). Care was taken during the recruitment phase to ensure that other prospective participants' details were concealed for privacy purposes. In this case, individual emails were sent to the participants identified. During the interview, participants were once more oriented about the objective of the research and their rights to withdraw from the interview were repeated in order to foster a situation of voluntary participation.

1.8 Lay–out of the study

The study unfolded as follows:

Table 1: Organisation of the study

Chapter	Title of Chapter	The aim of the Chapter
Chapter 2	Theoretical perspectives	The chapter positions the study to the Distance education theory appropriate for this study by way of a comparative study of the three selected distance education theories and relating them to students' experiences of online learning.
Chapter 3	Open and distance learning in South Africa and beyond	Chapter 3 provides some insight into Open and Distance Learning developments and practices internationally and in the African continent, including South Africa. The chapter concludes with a focus on the current UNISA ODL practices and its future vision.
Chapter 4	Research methodology and design	This chapter introduces the research process followed to determine and understand the rural students' experiences of online learning. It provides a detailed explanation of the research methodology and design chosen for this study and shows how the methodology and design chosen helped in understanding the phenomenon studied by way of answering the research question for this study.
Chapter 5	Findings and discussion	This chapter provides an overview of the findings and a discussion related to students' experiences of online learning.
Chapter 6	Conclusion	This chapter provides a presentation of the main findings, conclusions and implications of the study, linking them to the objectives set for the study. The Chapter concludes by highlighting limitations of the study.

1.9 Clarification of key terms

- **Open distance learning:** It is 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 student and peers. Open distance learning focuses on removing barriers to access learning, flexibility of learning provision, student – centredness, supporting students and constructing learning programmes with the expectation that students can succeed (UNISA Policy on Open Distance Learning,2008:2).
- **Distance education:** It is a set of methods or processes for teaching a diverse range of students located at different places and physically separated from the learning institution, their tutors/teachers as well as other students (UNISA Policy on Open Distance Learning, 2008:2; Vyas-Doorgapersad, 2011:53).
- **Blended learning:** It is a form of teaching and learning that encompasses the use of multiple teaching and learning strategies, a range of technologies in combination with face-to-face interaction and the deployment of both physical and virtual resources (UNISA Policy on Open Distance Learning;2008:2).
- ***MyUNISA*:** It is UNISA's online student portal focussing on learning. It is a space where students can express their opinions about learning matters. It is the students' lifeline, their most important link to the university (UNISA brochure, 2017).
- ***Mylife*;** It is a free UNISA student email account. Important information, notices and updates are sent by UNISA exclusively to this account. It is the official communication media with students (UNISA brochure, 2017).
- ***E-Tutoring*:** *E-tutoring* entails the delivery of teaching and learning via the Internet. An e-tutor is the person who undertakes the role to support and enable students to learn online effectively (UNISA tuition support, 2017).
- **Online learning:** It is e-Learning with a mandatory involvement of a digital network which a learner needs in order to access at least part of the learning materials and services. It refers to network enabled teaching and learning that allows the learner to have increased interaction with content, teacher and other students (Commonwealth of Learning, 2015).

- **E- Learning:** It is an umbrella term that refers to the use of any digital device for teaching and learning, especially for delivery or accessing content. Thus, e-Learning can take place without any reference to a network or connectivity (Commonwealth of learning, 2015). It is however, sometimes used by other researchers inter –changeably with online learning.
- **Learning Management System (LMS):** A Web-based software system that assists teachers to manage courses and deliver lessons online. It helps in administration, tracking and reporting of learning process (Commonwealth of learning,2015)
- **Signature modules:** They are part of a curriculum in each of the six UNISA colleges. Each college has one module to serve as a Signature module. The modules are predicated on their quality of online learning experiences, the design and development of innovative online learning assessments and the establishment of a staff development programme to effectively facilitate learning in a distance-learning environment. They provide registered students with the competence to take future online courses (Baijnath, 2014).
- **Digi-bands:** They are devices used in the Signature modules. They consist of sophisticated software, which holds all the needed course materials that are used online. Once plugged into a computer, students can undertake the necessary work in the learning programme, and are only required to go online periodically at an Internet destination of their convenience in order to synchronise their work with the institution's Learning Management System and to interact with peers and teachers (Baijnath, 2014).

CHAPTER 2

THEORETICAL PERSPECTIVES

2.1 Introduction

This chapter provides related literature for the study, which was organised to review the following: distance education theories specifically, background of the evolution of distance education, Otto Peters on industrial theory, Holmberg on guided didactic conversation theory and Garrison, Anderson and Archer's theory on communities of enquiry. Furthermore, justification for selecting Moore's theory as a theoretical lens and Moore's theory of transactional distance in context are discussed with all transactional distance variables. The Chapter concludes with an overview of students' experiences of online learning using various literature sources.

Pitsoe and Baloyi (2015:94) clearly point out the effects of transactional distance when stating that the distance between the students and the institution is still a worrying factor in the case of Open Distance e-Learning (ODeL). They go on to say that, "the effects of such isolation on distance learners can inhibit any possibility for engagement with teachers, study material and peers". Furthermore, Mbatha and Naidoo (2010) note that a situation where there is adequate usage of online learning services has potential to collapse the transactional distance between students and the institution; interaction between students and between students and lecturers, and above all, students can view their course material regardless of time and location. This situation is really desirable at UNISA because all students can be reached anytime and anywhere, considering that it is an inconvenience for most of the rural students to travel long distances to access some of the support services offered such as face to face tutorials, Video conference facilities and other services offered by regional centres.

2.2 MOORE'S (1993) THEORY OF TRANSACTIONAL DISTANCE

The study used Moore's (1993) theory of transactional distance, which claims that learning takes place through a transactional relationship between the teachers and students, students and students, and students and content. By implication, the manner in which the relationship is managed determines the transactional distance. The theory in the study shed some great light on

the factors that contribute to the communication gap between the students and teachers, student and content and student and student. Likewise, in an attempt to conceptualise the problem statement the theory was discussed with other theories in order to understand their similarities and differences and how they interlink to produce certain teaching and learning outcomes.

2.3 DISTANCE EDUCATION THEORIES

2.3.1 Background to the evolution of Distance Education

Distance education evolved through the contributions of distance education theorists such as (Peters, 1983; Holmberg, 1983; Moore, 1973, 1993; 1996; Garrisson, Anderson & Archer, 1996; Birochi & Pozzebon, 2011) and several others. The object of distance education is to provide education to all people who would otherwise not have had the opportunity to attend tertiary education (Letseka & Pitsoe, 2014; Makoe, 2012; Ngubane-Mokiwa & Letseka, 2015). These theoretical frameworks serve as a lens through which the distance education is better understood.

In addition, distance education is today on the same level as campus–based institutions in terms of respect and recognition. Campus-based institutions have recently started to introduce distance learning modules in some of their courses. Chatterjee and Moore (2009) report that two recent surveys of North American tertiary institutions found that 66% of those institutions offer some form of distance education. Equally, in South Africa, some campus-based universities such as the University of North–West, the University of Kwa-Zulu Natal and the University of Pretoria also offer distance learning in some selected modules (Department of higher education, 2013).

Moreover, distance education at its formalised inception started as correspondence education, where the students received study material by mail and there was very little communication with the teacher and the institution (Aoki, 2012; Heydenryck & Prinsloo, 2010). Through the contributions by various distance education theorists, the use of media in the form of television and radio sponsored by the state was introduced. Furthermore, with the advent of massification in higher education, higher education institutions could not cope with the student applications because of the resource challenges. Within the context of social justice, governments were also forced by their social mandate to open the doors of learning to all people who needed to learn. Consequently, distance education evolved from the “organisational and distance concerns to the transactional and educational issues” (Garrison, 2000). This led to the introduction of online

learning using computers and the internet. In all these developments, the student was placed at the centre of learning. Following are the theoretical contributions by the most influential distance education theorists (founding fathers).

2.3.2 Otto Peters on industrial theory

The theory of industrialisation helped establish distance education institutions to develop to the level they are today. It is however misunderstood as interested in the organisational structures of distance education such as the mass production, division of labour, rationalisation and use of technical media and several other industrial processes of production. In the same way, “distance education is a form of teaching and learning and also an expression of industrialisation” by way of using the structural elements, concepts and principles derived from the theories of industrial production to interpret the distance study phenomenon (Peters, 2007:434; Peters, 1967; in Sewart, Keegan et al., 1983:96).

Likewise, the theory therefore looks at the application of industrial models of production to provide teaching and learning in a distance education environment. Pedagogics in a distance environment is at the centre, driven by industrial ways of production. Student needs and conditions that enhance learning form part of the pedagogic nature of industrialisation of distance education. In order to enhance the pedagogic nature of distance education the industrial theory places an emphasis on pre-produced, well written learning materials that provide quality education, which is standardised from one environment to the other. It believes that carefully developed and designed instruction, produced and distributed in print or in other mediated forms that reaches out to individual students, would help shape the practice of distance education (Garrison, 2000).

The “industrial theory helps to understand the reality of teaching and learning at a distance; its specific character, the essence of the form of learning and the social processes on which they are based” (Peters, 2007:435). This enables the clearly formulated teaching objectives to be achieved in the most effective way. This is achieved through planning and rationalisation, which provides for a division of labour whereby some lecturers design study materials while others provide teaching and marking of assignments. The advantage lies in the fact that the teaching process can be reproduced, making it available anytime and anywhere, without the subjective nature of the teacher.

Likewise, within the new era of technology teaching, the industrial theory acknowledges the values of online learning, that it is a product and consequence of industrialised learning (Peters, 2007) within the distance environment. Birochi and Pozzebon (2011) argue that the distance in online learning can be overcome by more finely tailored technologies and decentralised decision-making structures. Peters (2010) concurs as he pleads for a presence of an oral dialogue in online leaning; that the absence of a teacher's voice in online learning affects to some extent the will to learn amongst some less autonomous learners. This understanding of the industrial theory displays to some degree some relationship with the transactional distance theory of Moore and the Guided Didactic Conversation theory of Holmberg.

Finally, Peters (2014) identifies various obstacles that might affect online learning such as accessibility to online learning technologies and the possible disregard by some enthusiasts of digitisation regarding student needs and the principles of pedagogics. Peters (2014) is of the view that instructional design be given preference to the nearly excessive interest in technical innovation, which could lead to a success of online learning. That instead of university teachers passing on the results of their research in the form of courses, they should find out exactly the learning requirements of defined groups of students and make every effort to satisfy these requirements as quickly and effectively as possible (Peters, 1997).

2.3.3 Holmberg on guided didactic conversation theory

Holmberg's theory hinges on the personal nature of learning material, which is able to talk to the student, offer suggestions and provide for an exchange of views (Holmberg, 2007). Holmberg (1983:2) maintains that the background to this theory is based on postulates which pronounce that "feelings of personal relation between the teaching and learning parties promote study pleasure and motivation; that such feelings can be fostered by well-developed self-instructional material and two-way communication at a distance; that intellectual pleasure and study motivation are favourable to the attainment of study goals and the use of proper study processes and methods; that the atmosphere, language and conventions of friendly conversation favour feelings of personal relation" and several others.

Furthermore, this theory functions in a conversational manner using a guided format that applies simulations to facilitate dialogue between students and teachers. The communication is both real

and simulated in the pre-planned study material produced by the teacher through commentaries in the text. The communication is one-way, directed by the teacher in the well-written, pre-planned study packages and two–way, brought through assignments marked and by other means such as self-checking exercises and review questions with model answers (Holmberg, 1983).

In addition, Holmberg (1983:1) states that the guided didactic conversation theory "implies that the character of good distance education resembles that of a guided conversation aiming at learning and that the presence of the typical traits of such a conversation facilitates learning." He also remarks that a conversational relationship between the students and the teachers is imperative to promote learning at a distance. In order to achieve this, well-produced study material with a conversational character; explicit advice and suggestions to the student as to what to do and what to avoid; invitation to an exchange of views, to questions, to judgments of what is to be accepted and what is to be rejected; attempts to involve the student emotionally so that he takes personal interest, are necessary (Holmberg, 1983:3).

Similar to the industrial theory of Peters, the production of good and well–written study material is essential to enhance self-regulated learning and independence. It is Holmberg's (1983:2) contention that most learners, also among the most mature and autonomous students benefit from teaching presentations based on the style of guided didactic conversation.

On the nature of the distance learning courses available, Holmberg (2007:432) argues that most distance courses still contain the traditional course content (home book text) which is rigid in the form of marking assignments and awarding marks instead of guiding and supporting the learner; those courses have little of the conversation character. He further asserts that there is no way that these should be distance education texts and argues that the well-developed courses with some empathy to motivate students to learn, can be provided in print, online or by speech in a recorded form. In this form, course presentation following these guided didactic conversation principles is assumed to be attractive to students, support study motivation and facilitate learning (Homberg,1983:4)

2.3.4 Garrison, Anderson and Archer's theory on communities of enquiry

A Community of Inquiry (CoI) theory focusses on the effective usage of computer– conferencing for teaching and learning in the form of learning communities (Garrison, Anderson & Archer, 2003:115). They further state that in CoI, the context of distance education is not independent learning, as espoused by Moore, Holmberg and other distance education theorists, but rather a context of collaborative, constructivist learning within a community of learners and their teacher. So, computer–conferencing is online learning and relies primarily on written language rather than verbal and at a distance. Additionally, Garrision et al. (2000; 2003) posit that the absence of voice and nonverbal communications prevalent in face-to-face teaching might be a barrier for some of the students. To offset this challenge, three elements to ensure the functionality of the CoI were proposed and those are: social presence, cognitive presence and teaching presence.

Social presence is defined as "the ability of participants in the CoI to project their personal characteristics socially and emotionally, thereby representing themselves as 'real' people in a community of inquiry" (Garrison et al.,2000:89; 2003:115; Garrison & Arbaugh, 2007:159). They go on to say that in addition to forming the basis for collaborative learning in a community of inquiry, it also provides an environment where students are able to project themselves socially and emotionally.

The second element in CoI is Cognitive presence, which is defined as "the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry" (Garrison et al., 2003:115). In a more cogent form, Garrison, Cleveland-Innes and Fung (2004:63) further explain cognitive presence as concerning the construction of meaning and confirmation of understanding. Furthermore, it provides a climate that enables learners to actively construct knowledge and meaning through a process of reflection and discourse with each other (Garrison & Arbaugh, 2007). It is considered a very important element for learning in higher education. It is operationalised in the form of problem solving, exploration through critical thinking and review, integration in the form of constructing meaning from ideas developed and finally resolution where the newly gained knowledge is applied to educational contexts or workplace settings (Garrison & Arbaugh, 2007).

Teaching presence is the third CoI element which Garrison and Arbaugh (2007:163) define as "the ways and the extent to which instructors facilitate discourse in the learning environment and direct instruction". The teacher is at the centre of the learning environment and has functions to fulfill. The first is the design of learning packages and their environment and the second is the facilitation of learning, which could be shared with other participating students in the community (Garrison et al., 2000:90). Garrison et al. (2003:116) point out that teaching presence "is crucial to realizing (sic) intended learning outcomes".

In relation to these three CoI elements identified, the CoI theory "assumes that learning occurs within the Community" through the interaction of these three core elements (Garrison et al., 2000:88). The interactions of these three elements are common to the successful establishment of a distance education learning experience. Garrison and Arbaugh (2007:158) note that "Higher education has consistently viewed community as essential to support collaborative learning and discourse associated with higher levels of learning" and this has implications for the role played by students and teachers. As all members of the community are expected to participate in this role adjustment, Garrison et al. (2004:65) contend that "deliberate action is required in terms of teaching presence". Students will need to be made explicitly aware of certain role requirements. Students are expected to take responsibility for their learning in the online learning environment because the roles assumed are in the form of "independence and inter-dependence" (Garrison et al., 2004:64).

Moreover, comparing to the two theories (Otto Peters' industrial theory and Holmberg's theory) the theory of Community of Inquiry functions in an environment of higher order learning, where critical inquiry is a requirement. It is a theory compatible for students familiar with the 'ins and outs' of online learning in terms of computer skills and participating in the public domain in a critical thinking manner. Within Moore's theory of transactional learning, the CoI has the potential to facilitate the interaction or relationships of the transactional distance variables of teacher-student, student-student and student-content relationships, which will be discussed below. Regarding the element of teacher presence, it has the potential to respond to the Industrial theory of Peters' (2010) plea for an oral dialogue in online learning by way of placing the teacher at the centre of the learning community; that the teacher's voice must be heard in the transaction.

Justification of the choice of this theory as the preferred theory to address the research question of this study will be presented before a detailed presentation of Moore's transactional distance theory is provided.

3.4 JUSTIFICATION FOR SELECTING MOORE'S THEORY AS A THEORETICAL LENS

Moore's theory of transactional distance is underpinned on the potential relationships between the teacher, student and subject content and that these relationships are facilitated through dialogue, structure and learner autonomy (Moore, 1993). Through these relationships, the nature of teaching and learning is understood. This theory is in essence concerned with the management of these relationships to facilitate teaching and learning. Though distance contributes to a communication gap between student-student and student–teacher, it is the manner in which it is manipulated that the distance and possible miscommunication can be prevented. So, the theory of transactional distance identified that the distance in distance education is not only geographic, but it is also psychological and pedagogic (Moore, 1993).

As compared to the Community of inquiry (CoI), the theory of transactional distance accommodates the novice online student rather than in the CoI, which is highly advanced in terms of Internet usage and critical thinking (Garrison et al., 2000). Rural students who have low self-esteem and received education from poorly resourced schools might feel alienated (Jones, Coetzee, Bailey & Wickham, 2008; Bornt, 2011). The CoI however, is an improvement of Moore's theory of transactional distance in the form of student interaction with the teacher and amongst students, but I argue that it would be more suitable to operate in the fourth generation of distance education which uses Web2 and various network sources for learning because of its nature group communication among students, two-way communication with the teacher, employing critical skills and its suitability for a seasoned computer user (Aoki, 2012; Heydenrych & Prinsloo, 2010).

Moore's transactional distance theory is suitable for the first, second and third generation of distance learning where UNISA finds itself with a large number of students who mostly reside in rural areas and received education from poorly resourced schools. Some of these rural students may also need some technological skills to be able to navigate through the Internet and computers. But most significantly, Moore's theory is relevant for this study because "its main concern is to understand the factors that produce the communication gap between the teacher and the learner

within the distance learning environment, while the other theories are directed towards the learning process itself" (Bornt,2011:2). It also helps to determine the proactive steps that could be taken to reduce the transactional distance.

Moore's transactional distance theory is an all-encompassing theory compared to all the other theories of distance education. It can encompass both the organisational, in terms of structuring the course and its distribution of the transactional issues without losing sight of the learner, the institution and the nation altogether. It is a global theory that carries the stem cells of other theories and can be proved by the way the thinking of all the other authors seem to be redirecting their work towards Moore's thinking–that is, the organisational synergy is moving firmly towards the transactional (Gokool-Ramdoo, 2008:4).

Among the other factors that make the theory of transactional distance to be the dominant theory as compared to the other three theories discussed above are: firstly, many researchers view it as a basic analytical framework for understanding distance education systems; secondly, researchers often cite the need to reduce transactional distance; thirdly, the theory is assumed 'true' and is taught at institutions of higher learning (Gorsky & Caspi, 2005:2).

Thus, in this study the theory of transactional distance is most appropriate to help the researcher to gain better understanding of the underlying contributing factors that lead to under-utilisation of online learning systems such as *e-tutoring* by UNISA's students, particularly among rural students.

2.5 MOORE'S THEORY OF TRANSACTIONAL DISTANCE IN CONTEXT

As a way to advance the development of distance education, Moore recognised the distance that students and teachers experience in a distance education environment; this distance leads to a separation, which would not only be geographical, but psychological and communicative. Chen (2001) observes that it is a distance of understandings and perceptions that leads to a communications gap or a psychological space of potential misunderstandings between people. Likewise, Moore (1991, 1993) hypothesises that this distance of understandings and perceptions is caused in part by the geographic distance, which has to be overcome, by teachers, students and the institutions if effective learning has to occur. In this space of transactional distance, the patterns of students and teacher behaviour are affected and impact on pedagogy, where the structure of the educational programme and the quality of the interaction between the teacher and student

determines academic performance (Makoe, 2012). This distance is found in both distance education and face-to-face learning, although it is more prevalent in a distance-learning environment, because of distance education's characteristic of separation of one from another, which consequently requires a set of special teaching and learning behaviours (Moore, 1991:2).

In addition, the Theory of transactional distance's "main concern is to understand the factors that produce the communication gap between the teacher and the learner within the distance learning environment..." (Moore,1993; Bornt, 2011:2). Moore believes that transactional distance has to be overcome if effective, deliberate and planned learning has to occur (Chen, 2001). Concerning learning using technology, students have to learn how to study through technology, how to communicate for learning – which is not always similar to what they do socially (Moore & Kearsley, 2012:1). The character of students, the nature of the technology used and the content of the study materials determine the manner in which the programme for teaching and learning would be managed.

Moore and Kearsley (2012:15) state that "in all education there has to be communication between a teaching organisation and a learner. They go on to say that in distance education, this communication takes place through some kind of technology. Given the vastness of technology, this study decided to focus on communication through computer using the Internet media. Communication is of various degrees and the extent of communication that takes place depends on the personality and philosophy of the course instructor and that of students (Moore & Kearsley, 2012). Moreover, Moore (1991:5) asserts that "the success of distance education is determined by the extent to which the institution and the individual instructor are able to provide the appropriate opportunity for and quality of dialogue between teacher and student, as well as appropriately structured learning materials."

In transactional distance, Moore advocates for a relationship between the teacher-student, student-subject content and students-students. That with the mediation of these relationships, learning takes place effectively in a distance-learning environment. Moore (1993) therefore emphasises that the extent of transactional distance is a function of the three sets of teaching and learning variables which are; dialogue, structure and learner autonomy. Consequently, the teaching and learning relationships can become more or less effective depending on how these variables are handled (Birochi & Pozzebon, 2011; Moore & Kearsley, 2012).

The nature of the course design, which speaks to structure, depends on what the course instructor and the institution wants to achieve. Furthermore, in instances where the course instructor requires of students to assimilate information by listening and taking down notes, the course becomes highly structured and dialogue becomes limited (Moore, 2013). He also argues that in a course where more dialogue is required, the course becomes less structured and dialogue takes place between the teacher and students and also among students themselves. In the same vein, the needs of students may require either a highly structured course with less dialogue or a less structured course with more dialogue. The nature of the theory of transactional distance will be illustrated in Figure 2.1 below.

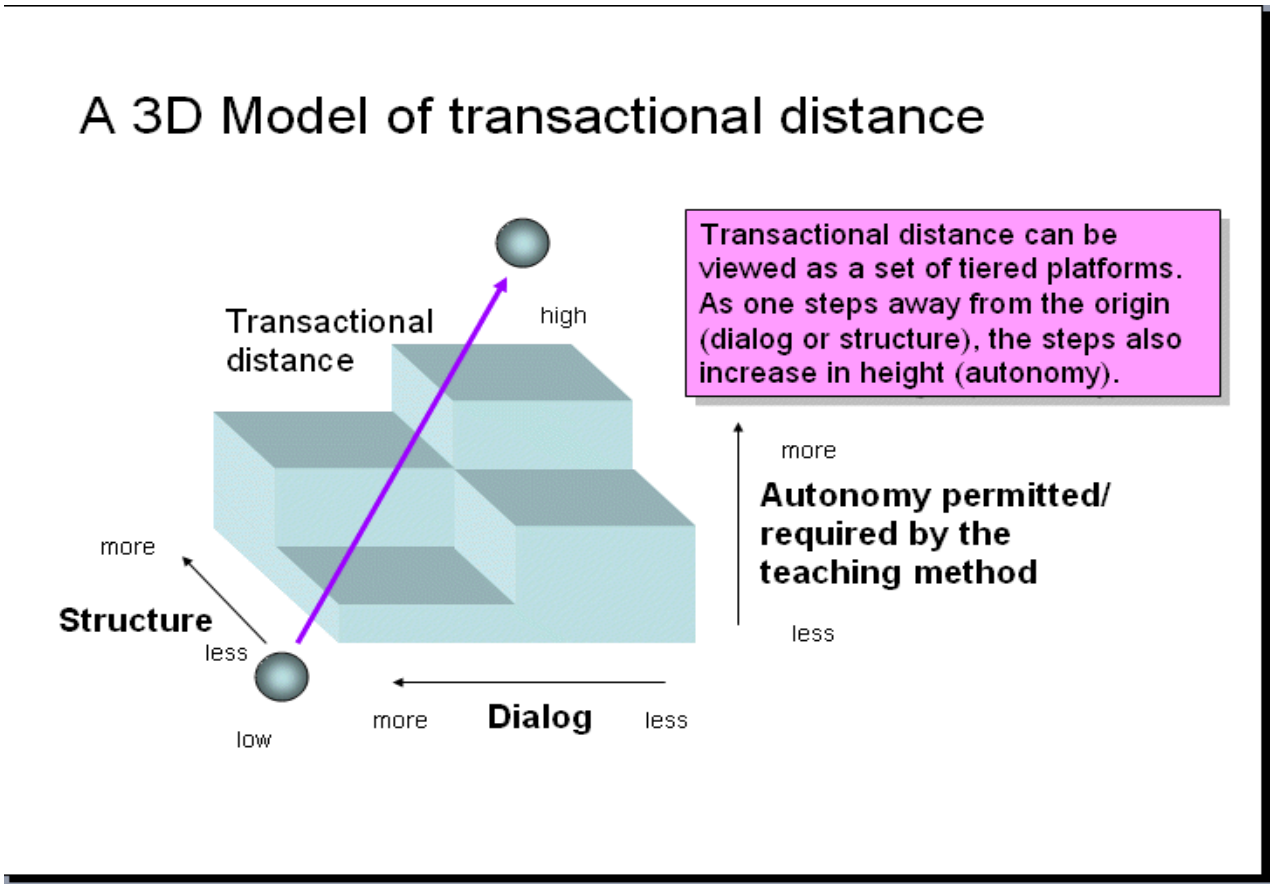


Figure 2.1: The Theory of Transactional Distance (adapted from Moore, 1991).

Learning takes place within these three variables specifically dialogue, course structure and learner autonomy (Moore, 1991; 1993). transactional distance is determined by the interplay between these three variables; Structure refers to the subject content and its design in terms of teaching

strategies and evaluation methods: As structure increases, dialogue reduces and transactional distance increases. He continues to say that as structure is lessened, dialogue increases and transactional distance is reduced; in this case dialogue refers to the interaction that occurs when one gives instruction and the other responds (Moore, 1991; 1993). The variable of learner autonomy applies when the course is highly structured and there is less dialogue. The student becomes self-reliant and independent with little or no support from either the teacher or other students.

Moore (1993; 2007) states that effective learning takes place through the interaction between these three variables. The student is at the centre of the interaction. The interaction between the variables mentioned above is a transactional relationship, which is fundamental to effective teaching and learning in distance education. It is an improvement of Holmberg's guided didactic conversation theory who ultimately shifted from his prescriptive (Holmberg,2007) guided didactic conversation to a new approach now known as the teaching-learning conversation which bears strong resemblance to Moore's idea of educational transaction (Gokool-Ramdoo, 2008). In this relationship, the special teaching procedures are essential between the teacher and students, course content and students and among students themselves for learning to take place. A discussion of the three variables follows.

2.5.1 Instructional dialogue

Moore (2013:70) argues that "Dialogue is a particular kind of interpersonal interaction, and it happens after a course is designed, as teachers exchange words and other symbols with learners, aimed at the latters' creation of knowledge"; it takes place when one gives an instruction and the other responds. Dialogue is therefore constructive interaction that is purposeful; also it is the means by which interaction between the teacher, student and content takes place (Moore, 2007). He also states that it helps to facilitate teaching and learning. Moreover, the extent of its value in teaching and learning is "determined by the educational philosophy of the course designers, the personalities of the teacher and learners, the subject matter of the course and environmental factors" (Moore, 1993:24; 2013:70). He further asserts that other determinants are "the ability of the learner to competently participate in the dialogue, and cultural and language differences between instructors and students".

In addition, Moore (1993) posits that in an environment where there is more dialogue, the transactional distance is lessened and misunderstandings in communication are minimised. He also remarks that the opposite happens where there is less dialogue. Likewise, the media used and the personality of the teacher and learners also contribute to determining the degree of dialogue (Moore, 1993). The success of distance education is determined by the extent to which the institution and the individual teacher are able to provide the appropriate opportunity for and quality of, dialogue between the teacher and learners" Moore (1991:5). This diagram illustrates how dialogue applies in the transactional distance theory of Moore (Figure. 2.2).

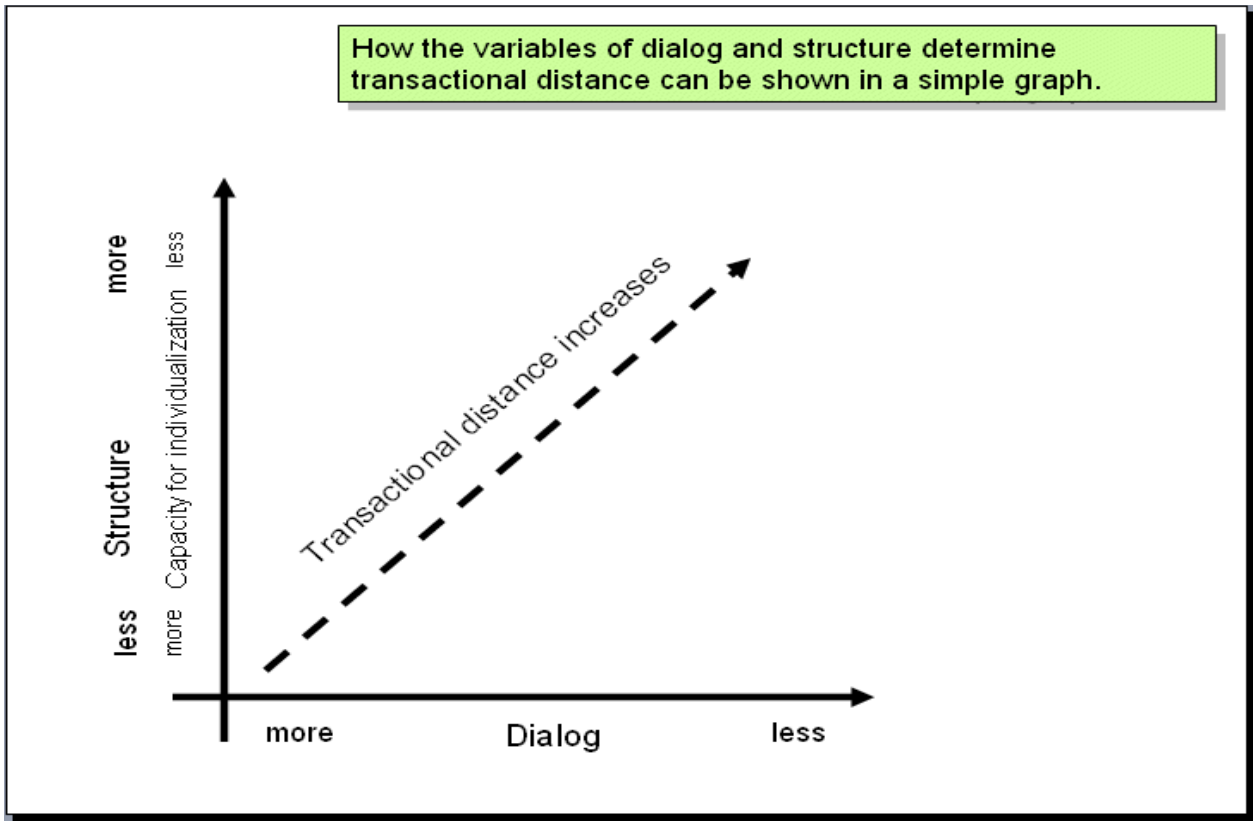


Figure 2.2: Relationship of course structure and instructor-student dialogue in transactional distance (adapted from Moore, 2013).

The illustration above explains that the degree at which a course is structured determines the level of dialogue that will take place. Highly structured courses promote less dialogue and more transactional distance is experienced and courses with less structure allow for more dialogue and therefore the teacher is able to provide more guidance to the students. Moore (1993) and Gorsky

and Caspi (2005) note that dialogue is not measured by the regular interaction between the student and the teacher, but by how constructive the dialogue is.

Moreover, Moore (2013:70) finds that the extent and nature of dialogue in any course is determined by numerous factors and overarching all is structure. He also remarks that the structure as an overarching variable, determines the degree of learner autonomy required in a transactional relationship. Moore (1991:5; 1993; 2013) concurs that "transactional distance is not absolute, but relative and that it varies according to content, level of instruction, and learner characteristics, especially the optimum autonomy the learner can exercise".

2.5.2 Course structure

Moore and Kearsley (2012:14) maintain that "[C]ontent, or subject matter, does not make a course. In a course, the content is organised into a carefully designed structure that is intended to make it as easy as possible for the student to learn". Such is the nature of a well-structured course. Course structure, as in dialogue is another variable that determines the degree of transactional distance in teaching and learning; the design of some subject content requires more structure than others. Similarly, Moore (1993:26) argues that "Structure expresses the rigidity or flexibility of the programme's educational objectives, teaching strategies and evaluation methods". He further states that these factors include aspects such as the extent to which course goals and objectives are pre-prescribed, the pedagogical model used in teaching the course, the nature of assessment and the ability of the course to accommodate individual student needs. It determines the degree at which students can be able to engage with the teacher, other students and course content (Moore, 1993:26).

Additionally, a well-structured course allows for dialogue where students are able to receive feedback from their teachers anytime and anywhere. A highly structured course embodies rigidity. In such a course teaching and learning take place according to the systems in place. In this regard, Moore (1993:27) contends that "When a programme is highly structured and teacher-learner dialogue is non-existent the transactional distance between learners and teachers is high". Highly structured courses provide for a greater transactional distance and the student is expected to be self-directed in order to achieve success in learning. However, Stein et al. (2010:114) posit the importance of considering students' needs when designing courses and hold that "structure is

interpreted differently by different learners and that it is important to design a course to match the learner's desire for structure". This admission corroborates Moore's (1993:26) assertion that "structure describes the extent to which an education programme can accommodate or be responsive to each learner's individual needs". There is no degree to measure the amount of structure required, but Moore and Kersley (2012) advise that in order to avoid failure, there should be a balance in the design of structure and dialogue and when in doubt, it would be better to have too much structure than too little. Equally, Stein et al. (2010:115) propose that instructors should be aware of the structure that learners require and plan interactions accordingly and also that learners should make their needs explicit so that instructors can adjust the course structure to match learner expectations.

Course structure is the overarching variable among all other variables in the theory of transactional distance (Moore, 1993; Gorsky & Caspi, 2005; Moore & Kearsley, 2012). Dialogue and learner autonomy are dependent on the extent the course is structured, the philosophy of the course designer and the institution, and also the character of the students, but course structure remains the overarching variable. Again, the degree of students' responsiveness to course content is determined by either the rigidity or flexibility of the course. Following is the variable responding to effective learning in relation to learner autonomy.

2.5.3 Learner autonomy

Learner autonomy concerns the extent to which the student has control or is not going to have control to make decisions for themselves regarding what to learn, when to learn, where to learn, in what ways to learn and to what extent (Moore,2007:439; Moore, 2013:73). He further states that it places the student at the centre of learning; it denotes independent learning. The student is self-driven and makes independent decisions on what to learn, how to learn and when to learn. Moore (1993:31; Gorsky & Caspi,2005:2) explains learner autonomy as "the extent to which in the teaching or learning relationship, it is the learner rather than the teacher who determines the goals, the learning experiences and the evaluation decisions of the learning programme." The role of the teacher in this relationship is as facilitator rather than instructor at the centre of learning. Moreover, Moore and Kearsley (2012) note that learner autonomy is determined by various factors which include the design of the course content, the characteristics of the student, the philosophy of the

course designer and the institution offering the course and also the media being used. In the transactional sense, students have varying preferences regarding their engagements with learning content, their teachers and fellow students. Some students prefer highly structured courses with less dialogue while others prefer more dialogue and less structured courses.

In courses where there is less structure and increased dialogue amongst students, the teacher becomes the facilitator through the provision of support and guidance while the students are in the fore-front of learning. In this instance the roles of both the teacher and student are indistinct in the learning process. Similarly, in highly structured programmes which have less dialogue, transactional distance increases and learner autonomy is evidenced.

Independent and resourceful students prefer less dialogue and more structure in their studies than dependent students who prefer more dialogue and more structure (Moore, 1993). However, Moore (2013:73) cautions that it should be understood that highly autonomous students also need teachers. He goes on to say that less autonomous student relies on teachers for guidance and support, the highly autonomous student only needs information and the necessary advice to get the job done. The autonomous learner would only surrender the autonomy to the teacher when needing guidance and advice, and later reclaim it to proceed independently with learning (Moore, 1993:26). The figure below illustrates how learner autonomy takes places.

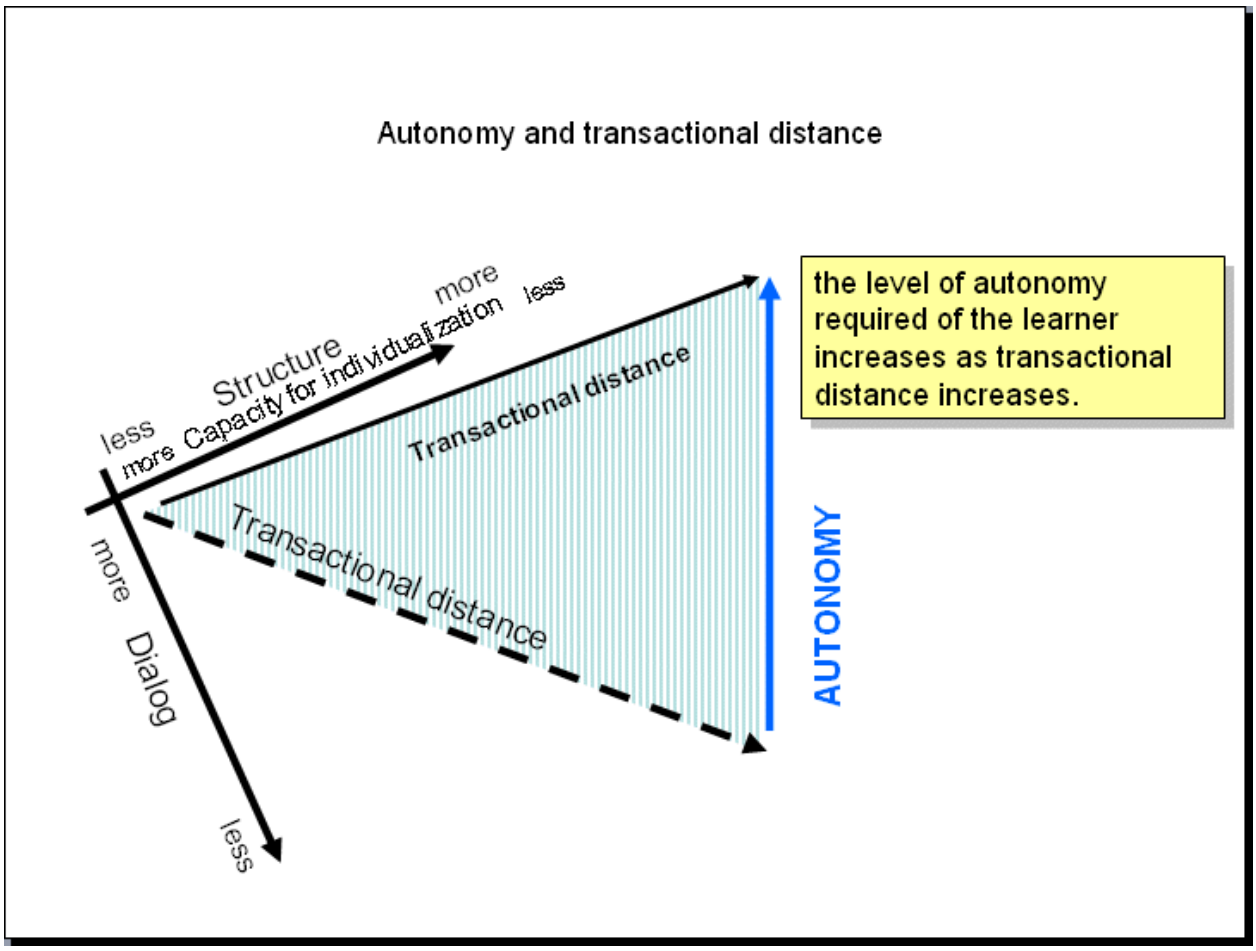


Figure 2.3: Autonomy and transactional distance (adapted from Moore, 2013).

In a course with more structure, transactional distance increases and learner autonomy is evidenced and dialogue is minimised. A course with less structure provides for more dialogue and less autonomy.

Gorsky and Caspi (2005) maintain that transactional distance and leaner autonomy are directly proportional. Moore (1993:27; 2013:73) asserts that "the greater the transactional distance the more the learners have to exercise autonomy". Structure and dialogue determine learner autonomy; transactional distance occurs when structure and dialogue interact and the degree of autonomy is thus determined. He further asserts that students differ in their ability to exercise autonomy.

In the context of UNISA, the Transactional Distance Theory is suitable to address the factors contributing to the inadequate usage of online learning support services by students. Rural

students have the potential to particularly benefit from this study because of distance gap they experience. Following are the recorded literature sources and challenges experienced by students in an online setting.

2.6 BACKGROUND OF STUDENT EXPERIENCES WITH ONLINE LEARNING

Song, Singleton,Hill & Hwa Koh,(2004) note that the need for understanding student experiences with online learning is essential. They posit that most studies on student experiences are anecdotal and emerge from the stantpoint of course instructors teaching the course or instructional designers developing the course rather than the students themselves. Besides Song et al.(2004) and other researchers such as DeBourgh (1999) Burton and Goldsmith (2002), Wheeler (2002) and several others had already started to research the student experiences with online learning , but it is Song et al.(2004) who made the call loud and clear. Since this call, more studies are now conducted with an attempt to learn from the students' perspectives what their experiences and perceptions are with online learning. UNISA is also one such institution where more studies are conducted to understand what students think about online learning, what would make them to be successful in online learning and what challenges they face.

2.6.1 Student experiences with online learning

The student experiences reported in this study are based on actual student experiences as reported in the various studies conducted and also some 'anectodal' reports from the points of view of researchers who conducted various studies related to this study. The reports are generally with regards to how online learning could benefit distance learning but, one-sided as they would be, the anecdotes cannot be dismissed entirely as they also help us to understand the online environment regarding student experiences.For example, it is reported in Nwankwo (2015) that the Sloan Consortium reported in their study that online courses enable universities to reach a higher number of students and offer them the opportunity to be self-paced in their learning. Ngubane, Mokiwa and Letseka (2015) also report about the habits of some students regarding online learning, that they would not be able to improve their digital skills.

The difference in UNISA is that there are no options similar to traditional universities regarding online modules. UNISA is an ODL institution and it is therefore expected to offer teaching and

learning online. Currently, the courses students enroll for are either online or the students study in isolation if a face-to-face tutor is not provided.

On the issues of the actual experiences students go through, Burton and Goldsmith (2002) discovered in their study at several universities in America the following findings; First, that students experienced some delayed feedback in the teacher-student interaction, and this is caused partly by the asynchronous nature of their online programme. They feel that teachers should provide continual communication to answer questions regarding the online course.They need more teacher presence and immediacy in providing feedback. For example, one student reported that "*I have found in this particular course that I do not have much help,guidance or feedback from my instructor. I do not feel that I am provided with the proper tools to complete assignments and wonder all the time whether I am doing the work as she expects"(*Burton & Goldsmith,2002:12*).* The student's remarks suggest a strong sense of frustration with online learning.

In the same vein, the concern by students for tutor presence was further confirmed in the study by Nwankwo (2015:42), where students pronouced their preference by confirming that "professors provide clear objectives and goals for both group and individual assignments, ensure that assignments are completed when due and offer support and encouragement to students who might otherwise drop-out". Various researchers such as DeBourgh (1999), Wheeler (2002), Song (2004), Ustati and Hassan (2013) acknowledge the confirmation about the active role of the teachers. To illustrate, DeBourgh (1999) finds that the pedagogial characteristics associated with student satisafaction are such that; the teacher promptly recognises and responds to students questions;encourages student participation in class sessions; uses a variety of instructional techniques to help students gain a better understanding of course material; and provides timely feedback.

Overall, Young (2006:73) reports that "students appreciate instructors who make a strong effort to facilitate a thoughtful course that is well organized (sic) and carefully structured." They want instructors who not only design high-quality courses but who also are engaged along with the students. Effective instructors are seen as those who are flexible with students, adapting to the students' various needs and demanding high-quality work while also creating an atmosphere that

encourages their students to collaborate and interact with their classmates, their instructor and the course material."

The second finding experienced by students as valuable is course design. Students believe that a course, which is properly designed, will contribute to their successful online learning. Song et al. (2004) argue that as a primary attribute, it takes good design to make good online instruction. They go on to say that both students who are satisfied and those not satisfied with online learning reported their satisfaction with the value of course design in an online learning course. This applies to a course where learning materials are accessed with ease; the technology used is user-friendly and enables students to access vast resources; and online technical and academic support is available (DeBourgh, 1999; Ustati et al., 2013:299).

In addition, Nwankwo (2015) finds that students were satisfied with course content and how it is delivered but proposed that Web conferencing be introduced as the delivery was conducted asynchronously. As a third finding, students experience learning communities as a valuable learning tool because they are able to share views and knowledge with other students. Burton and Goldsmith (2002) posit that most of the students interviewed enjoyed working online with other students. This tallies very well with Moore's transactional distance theory variable of dialogue in the form of student-student interactions that learning takes place successfully when students learn as a community. A contrary finding by Mathieson and Leafman (2011) is that some students have less desire for social connections with other students and they report having less time available for such connections.

The first three findings discussed above emerged in several studies as prevalent among most students' experiences while the other following experiences could be both anecdotal or inferences from other lessons and actual experiences.

In a study of e-learning from the experiences of e-tutors, Pitsoane et al.(2014) report that students are found to be illiterate on computer usage and some are shy to use online systems in a public platform such as *e-tutoring*. The finding reflects students' lack of confidence and expertise on the e-learning platform. Song et al.(2004) concur by emphasising the value of the student's experience

with technology and comfort level, and argues that researchers have long identified this level of experience as key to the successful usage of technology learning. There are however some students who are comfortable with online learning and they encourage novice students not to have negative attitude towards computers, knowing that with a positive attitude they will improve as they study along (Burton & Goldsmith, 2002).

In addition, Alexander (2001) lists the following factors as elements around student experiences with regards to online learning: Firstly, students consistently rate communication and support from faculty and other students as having the major influence on their online learning experience. Secondly, time available to devote to the course. It is now regarded as the "the new distance", as lack of time, rather than long distance, has become one of the primary reasons that students withdraw from courses. The third issue is the student experience of the technology; students report that their own level of skill with information and communication technologies has a significant impact on their participation in e-learning activities.

Angelino and Natvig (2009:10) and Alexander (2001) posit that one of the strengths of online learning is that "students must actively participate in the discussions to earn credits towards their final grade. They earn points towards their final grade based on the quality and quantity of their participation in weekly asynchronous discussions". Therefore, when students do not see some credit bearing incentives for their participation, they may be reluctant to use online learning platforms.

The reported literature findings reveal that on-campus students use online learning systems more comfortably and frequently than remote students do. They are able to receive technical support when faced with challenges more quickly than remote students and this serves as a contributing factor to their experiencing of online learning in a positive light. Indeed, this implies that the assumption is that on-campus students and urban students are likely to be more ready for online learning than rural students.

2.6.2 Students' readiness or lack of readiness for online learning

Learning online is a challenge for novice and immature students. Students are expected to present their views on a public platform and it creates a problem for some of these students. For example, Burton and Goldsmith (2002:26) maintains that some students find "open communication

problematic". They are not able to handle a heated debate from a posting by other students. They further argue that the lack of non-verbal cues sometimes causes misunderstandings. On the other hand, there are some students who find online learning enjoyable and are therefore able to prepare before hand by browsing the course material and also the technical processes involved; they are not intimidated by their lack of computer skills and are prepared to learn and eventually develop their computer skills; and also accept the benefits of online learning regarding the convenience to learn wherever they are with the support of teachers and other students at anytime (Burton & Goldsmith, 2002; Song et al.,2004).

Moreover, Bigatel and Williams (2015) explored the environment where students rate professionally trained online instructors against those who have not received any training. The findings revealed that teachers with professional development rated higher than those without professional development. Professionally trainded teachers were able to apply strategies that can effectively engage their students. More students who had teachers who went through professional development felt that their courses engaged them, because their teachers participated online and provided feedback on assignments or on discussion posts. Bigatel and Williams (2015) claim that student engagement is a strong predictor of student persistance and degree completion. As a consequence, students with teachers who received professional development performed well in their online courses and did not drop-out. In line with Moore (1993:25), "the psychological and communication space, which is a space of potential misunderstandings", is crossed as a result of the professional development of these online teachers. As a result, students who are uncomfortable with online learning are able to develop their skills and also are able to benefit from online learning.

Likewise, some students view online learning with scepticism because of the fear for public communication and the unfamiliarity of the person they communicate with. Wang (2014) reports that for students to take an online course is not an easy decision to make. She goes on to say that students must overcome the fear of potentially wasting time and money and disclosing sensitive information and losing submitted work in the face of face-to-face interactions. By implication, trust or the lack thereof has a huge influence on how students will engage with online learning. Wang (2014) further emphasises that students' trust in online learning platforms is enhanced by trust-inducing factors such as the delivery system or platform, course content and the instructor.

Students with disabilities, for instance would not readily expose their abilities to an unknown person at first meeting. Likewise, rural students would not readily confide in a stranger and share their problems. They may fail to seek help…..because they may not know how to access the support services available to them (Giffrida, 2008). The trust deficit has a negative impact as it inhibits student readiness for online learning.

Moreover, Mbatha and Naidoo (2010) and Makoe (2012) assert that despite the efforts of ODL Institutions, the majority of students, especially those from disadvantaged backgrounds, find it difficult to succeed in ODL. Most ODL Institutions use technology such as the internet for teaching and learning, but still most of the students prefer face-to-face teaching from lecturers and tutors (Mbatha & Naidoo, 2010). This is because their learning styles are incongruent to the online learning styles, which might be linked to the lack of computers in their home environment. Perry et al. (2008) note in their study on student attrition from online learning courses that students considered the online method of study as not accommodative of the way they liked to study and others indicated that they did not have the computer knowledge and levels of support required to study online. On the contrary, Roberts (2008:10) observes that "in an area where technological literacy has increased, the demands for more online offerings increases. The use of an online format would serve as a retention tool rather than a recruitment tool. It is however rare for an online student to be from a remote location." This strongly points out that rural students are restrained by the lack of suitable infrastructure in their areas of residence.

Student satisfaction is one dimension identified with regards to student experiences. Sun et al. (2008) argues that learners' anxiety hampers their satisfaction. To help students build their confidence in using computers will make e-learning more enjoyable. Equally, a fundamental computer course could be a prerequisite to better prepare students. Learners' computer anxiety; instructor attitude toward e-Learning; e-Learning course flexibility; e-Learning course quality; perceived usefulness; perceived ease of use; and diversity in assessment are the critical factors affecting learners' perceived satisfaction. Eom (2014) concludes from the study conducted that readiness for online learning enhances students' satisfaction with online learning systems. The students surveyed reported that their ability and skills to use the internet and many other telecommunications media foster their readiness for online learning.

However, with regards to UNISA, the Student Representative Council (SRC, 2015) demands for the scrapping of online learning, arguing that ICT systems are not ready for the e-learning implementation. They demanded to have electronic gadgets such as laptops, tablets and the 3G internet access tools to be made available to them in order to meet the needs and demands of the technological age. This UNISA SRC letter of demand clearly signals the many challenges UNISA students experience with online learning.

2.6.3 Students' challenges with online learning

Mashile and Pretorius (2003) and Makoe (2011) argue that the socio-economic status of students and the affordability of technology and poor infrustructure in the living areas of students, contribute to the digital divide prevalent amongst students, particularly the rural students. They further state that agreeing to the discontinuance of the introduction of online learning will be perpetuating the digital divide. Heydenryck and Prinsloo (2010) further emphasise that access to the Internet and the lack of technology skills often creates a challenge when there is limited access to electricity and the telephone networks and when student do not have expertise in using computers to search online resources.

In the same way, Ferreira and Venter (2011:81) report that communication is essential in human life and that " where two or more individuals share information, knowledge,values and skills, it is necessary to communicate in such a way that any misunderstanding is avoided at all costs". They also remark that it is a challenge in an ODL environment as the language of teaching and learning is either a second or third language for most of the students. Also, "many students do not have electronic devices for online communication and that those who have, may not have the skills to utilise the technology to the fullest" (Ferreira & Venter, 2011:81). In the case of UNISA (Polokwane Campus) this kind of a challenge is compounded by the SRC (2015) which requires the complete scrapping of e-learning. The argument that it advances is that UNISA ICT systems are not ready for the e-learning implementation and that students do not have the necessary technological devices to use for online learning.

Heydenryck and Prinsloo (2010) listed a number of challenges for students, amongst others are the lack of access to the online system, caused by infrastructural constraints; lack of skills on the usage of computers; low self-efficacy which could have a psychological bearing on their ability or

the nature of UNISA online learning which is oblivious of the needs of students, more specifically rural students.

It true that most students from rural areas are affected by the challenges mentioned above. This can be attributed to the fact that due to their poor socio-economic backgrounds, most rural students are first generation university students in their respective families (Letseka & Pitsoe,2014:1943; Makoe,2012; REAP,2008:22).They go on to say that other contributing factor to these challenges is the absence of community members who can help students to overcome the online learning challenges. Computers are also not easily accessible in their home setting. Similarly, the schools they graduated from are poorly equiped with learning resources and well qualified teachers. This has been well documented (Mays,2000; Letseka,2015).

Letseka and Pitsoe (2014: 1948) acknowledge that "Sub-Saharan Africa, though having adopted technology to open-up learning to those students who would otherwise not have had the opportunity to be in higher education, faces more challenges in terms of infrastructure and institutional, physical and human capacity to provide that learning". Certainly, the socio-economic statuses of such communities contribute massively to the limited access of the online learning tools. Moreover, Mbatha and Manana (2012:123) are of the same view that access may be an issue for first-generation and low-income students and those from rural areas where low-speed Internet connections prevent them from using websites adequately. Possibilities of sharing someone's computer may raise issues of privacy while those of travelling to areas where Computers are available could be financially challenging.

Additionally, Makoe (2011; 2012) are concern about the burden that some lecturers place on students that transferring course material onto online platforms for students to download does not constitute online learning. She also goes on to say that this practice simply adds more costs for the students. The CoL (2007:7) also warns that such an approach could lead to the transfer of costs from the institution to the student. Disadvantaged and rural students would experience severe financial challenges. Some of them would need money to travel to centres where they can gain access to computers and the Internet. Printing the material would also be an added cost.

Culture is another contributing barrier likely to affect most online learning students. Pitsoe and Letseka (2015:58) maintain that "culture refers to the system of shared beliefs, values, customs, behaviours and artefacts that members of society use to interact with their world and one another–

it binds people together". As a constraint, unprepared students from various cultural backgrounds may find it difficult to participate freely online. Guiffrida (2008:22) finds that rural students particularly have cultural tendencies such as; potential mistrust of outsiders, particularly urbanites; may not share problems with people outside their close-knit support network from home , and may not know how to access the support services available to them - be they centralised or decentralised. In some other findings the students are found to be not digitally literate to use the tools and may never be able to use them for learning in future because of their habits (Ngubane-Mokiwa & Letseka,2015).

Over and above these challenges, most of the literature reviewed reflects that students feel that online learning should not be an isolated, independent activity but rather one in which students and instructors are partners in learning. Bigatel and Williams (2015) argue that students' satisfaction level increases when they realise that their teachers are well-trained to teach using online platforms. Other students talked about the ineffective instructors. They noted the lack of instructor involvement in the discussions and in communicating with the students and the lack of feedback on their work. They further argue that in an online classroom, answers to those important questions are delayed, sometimes causing frustration and reducing motivation to learn (Burton & Goldsmith, 2002; Young, 2006).

2.7 SYNTHESIS

The chapter above discussed theories of distance learning. The central focus of discussion was on Moore's theory of transactional distance. This theory is most pertinent to provide clearer understanding of this study's question specifically: How do rural students in the Limpopo region experience the online learning support provided by UNISA as an open and distance learning institution? In this theory the extent dialogue takes place with teachers or other students, the nature of the course structure in terms of design and also the character of the students' learning styles are at the centre. The theory postulates that successful learning takes place when there is a balanced interaction of three variables namely, teacher-student, and student-student and student content interaction.

In the absence of this interaction, the result will likely be unsuccessful online learning, which by its very nature presents challenges to most students, both urban and rural, particularly the first time

users of the system. In the case of South Africa, the problem is compounded by its vast rural areas that are severely under-developed. Literature reviewed reveals that most students, both international and national, face various challenges regarding internet connectivity. Those challenges are the server that is frequently off-line and the connectivity that is slow; lack of computer skills by students and some teachers; infrastructural challenges and poverty, and the like. Furthermore, about UNISA the additional challenges could be around the appropriate design of an online course, establishment and sustenance of student communities of learning and dialogue from the side of the teachers. Moore (1993) avers that well-designed study materials that provide for teacher-student and student-student interaction are an appropriate vehicle to cross the space provided by distance education.

It is however not preferable by some students to participate in online in order for them to learn successfully. Some autonomous learners may not need interaction with the teacher or other students. They feel comfortable working alone. Some such students may visit the online page periodically to see the comments and interaction of other students without themselves participating and as such benefit from this style of learning. Sutton (2000:3) notes that “social and psychological characteristics of students often combine to inhibit their direct interaction”. For these kinds of students, Moore’s theory would require that the quality of the course design and communications media be such that these students would benefit from the course content. It is evident that learner success in online learning cannot necessarily be centred on student participation, but that the quality of the course content and the nature of the interaction seen on the site would be an added advantage.

As outlined in the above paragraphs, student experiences have been documented predominantly from the perspectives of teachers and instructional designers. Various researchers including Sutton (2000), Song et al. (2004), Burton and Goldsmith (2002) and several others confirm this assertion. Some compelling evidence from the perspective of students is limited. This implies that a need exists for educational studies to take their starting point from students’ perspectives in order to gain a better understanding into their own experiences with regard to online learning (Song et al., 2004:60). This study attempts to be responsive to this need of understanding students’ online learning experiences, particularly those of rural students.

UNISA is expected by the Commonwealth of Learning to be a fully-fledged ODeL Institution. UNISA expects to reach this goal by the year 2020 when all modules will be linked to e-tutors. Already 70 percent of the modules in UNISA are linked to e-tutors. The inadequate usage of online support services by students is however still a challenge to UNISA. In this study, the global challenges faced by students and universities regarding students' usage of online services have been highlighted. Literature sources show that it will take considerably long time to fully realise online usage by students for learning purposes, particularly in the developing countries. This study is part of the effort to understand the challenges faced by students and try to identify some possibilities and measures that can expedite the realisation of equal access for all ODL students, regardless of their locations.

The various distance education theories discussed above complement one another to enhance online learning. The dominant theory amongst them is however, the theory of transactional distance because of its comprehensive nature of describing the transactional space that exists in distance education and that has to be crossed in order for learning to be successful. The industrial theory is a founding distance education theory that helped facilitate the establishment of this form of education and despite its original focus on the organisational part of distance education, it later made vast contributions to teaching and learning in distance education. Thus, in spite of Moore's theory being the stem cell of all theories, these other theories cannot be discarded to irrelevance as they helped shape the transactional distance theory.

2.8 CONCLUSION

This chapter explored theories of distance education with the aim to gain some insight into teaching and learning within an online learning environment. It showed that online learning by its very nature, particularly in distance education, presents challenges that render teaching and learning ineffective, which limit successful learning of students. Likewise, it pointed out that regardless of student's competency for technology usage, there are other multiple variables that affect the student's successful learning; those variables could be the kind of pedagogy that is applied, poor or lack of student orientation for technology usage, course design or language serving as a barrier, especially when it is used in textual format as opposed to verbal communication and the like as discovered by researchers. Against such backdrop, Moore's theory of transactional distance was strongly recommended to be the most relevant to be used in the study in order to gain deeper

understanding of the underlying challenges that result in inadequate usage of online learning systems by UNISA's students, even when these facilities are at their disposal. In chapter 3, the overview of the online learning developments and experiences at some international, continental and national higher education institutions will be presented in order to help us understand and benchmark the UNISA online learning landscape.

CHAPTER 3

OPEN AND DISTANCE LEARNING IN SOUTH AFRICA AND BEYOND

3.1 INTRODUCTION

This chapter provides some insight into Open Distance Learning (ODL) developments and practices internationally and in the African continent, including South Africa. Furthermore, the chapter will explore information about ODL at UNISA and its current status and future vision. In addition, the international context of ODL developments will be benchmarked against the Open University of the United Kingdom (UKOU)'s developments, to see how it maintains and applies ODL, with an online learning component. This is because UKOU is a precursor to ODL and the first state supported ODL Institution established in the world (Vyas–Doorgapersad, 2011; Oladokun, 2012 & Agbu, et al., 2016).

Furthermore, with the subsequent establishment of other ODL Universities in other countries in the world, the Commonwealth of Learning (CoL) was established to guide the universities on ODL standards of practices so that they achieve their objectives of ODL. The CoL provides guidance and support to ODL Institutions in terms of student access to services, strategic plans and policy formulation and with the design of instructional materials universally, ODL Institutions operate in tandem with other ODL Institutions in other countries. Their practices in terms of student support and other administrative models are almost similar, unless where resources and their organisational culture are a limiting factor. For that reason, the exposition of ODL University models that will be highlighted in the chapter will differ from one ODL Institution to another, even though all of them share the same objective, which is to strive to provide access to individuals who have not had an opportunity or denied access to study at traditional institutions of higher education.

3.2 OPEN UNIVERSITIES INTERNATIONALLY

3.2.1 A brief overview on the origin of Open universities

The term 'distance education' is used interchangeably with the term 'open distance learning', but not all distance learning institutions embrace ODL, while all ODL Institutions are regarded as distance learning institutions (Hydenryck & Prinsloo, 2010). Some so-called ODL Institutions still apply some of the practices found in traditional universities such as rigid admission requirements,

the design and distribution of learning materials, centralisation of services and face-to-face teaching. Moreover, Open Distance Learning is characterised by its openness in terms of student admissions, as at the Open University of the United Kingdom; it is not campus-based and the means to teach are varied and open. Distance learning institutions are also characterised by elements such as the limited application of face-to-face teaching, the use of audio conferences, video conferences and computer mediated learning. ODL bridges the distance in terms of time and location.

Additionally, in historical terms, the first signs of ODL existence started to emerge in the ancient times when the Sophists walked far and wide around Greece to teach in villages and cities for a fee (Alcala, 2001; Biao, 2012; Kisanga, 2015). They go on to say that they (Sophists) bridged the distance by going to where the students were located. The Egyptians used letters as a means of reaching out to their students. These were sporadic developments that were individual initiatives and not state supported (Alcalia, 2001; Biao, 2012; Kisanga, 2015).

The first organised correspondence course was developed in England in 1840 offering shorthand (Alcala, 2001; Hydenryck & Prinsloo, 2010; Biao, 2012; Tait, 2014). The success of this course led to the birth of distance education institutions, amongst which, the first to be established was the University of South Africa in 1946, and later followed by the United Kingdom Open University in 1970 which was established as an open university (Hydenryck & Prinsloo, 2010; Biao, 2012; McIsaac & Gunawardena, 2001).

There are currently over ninety Open Universities around the world. The first of their kind were established in the United Kingdom, India, Australia, South Africa, Nigeria, Canada and several other countries that followed suit (Mishra, 2010). In Africa, massification resulted in the inability of universities to accommodate high school graduates. To alleviate the problem, a large number of some universities established centres for distance teaching and learning (Ambe–Uva, 2007; Biao, 2012; Mohamedbhai, 2014). Furthermore, the emergence of information communications technology (ICT) into education helped many universities to be able to deal with the massification challenge. This led to the introduction of online learning through which distance between the teacher and the student is bridged. Below is a brief overview of the university pioneers of ODL in the international landscape.

3.2.2 United Kingdom Open University (UKOU)

The United Kingdom Open University (UKOU) was established in 1970 as the first ODL institution worldwide (Ambe-Avu, 2007; Tait, 2014; Agbu et al., 2016). The objective was to provide education at a tertiary level to those students who; due to work commitments, being distant from the residential universities or not having the necessary entry qualifications, would not be able to access such a learning environments (Biao,2012; McIsaac & Gunawardena, 2001). The UKOU therefore embarked on a system of openness in terms of admissions policy, exit policy, student choice on what to study and the means of teaching and learning which were in the form of multimedia such as audiotapes, TV broadcasts, telephone, radio, computers and several others. It also established service centres throughout the United Kingdom to support students through face-to-face contact as and when required on a supplementary basis (Tait, 2014). E-library is available for international students who would not be able to visit the Open University (OU) libraries that are available in the United Kingdom (McIsaac & Gunawardena, 2001).

The UKOU caters for students throughout the world and it is the only dedicated distance learning institution in the United Kingdom. According to the UKOU website, it currently (2016) has over 10 000 students enrolled outside the United Kingdom. Unlike many universities in the world, the UKOU follows an open admissions policy where enrolment for undergraduate qualifications does not require one to have a formal qualification or to pass an entry test. Formal qualifications are required only when one enrolls for a post-graduate qualification. The requirements central for registration are proficiency in the English language for writing skills purposes and access to a computer.

The UKOU offers a variety of support programmes for both local and international students. The support is through the innovative use of technology in order to meet the students' needs, such as the *OU anywhere app* that assists with reading courseware materials on the go using laptops or compatible cellphones; availability of Skype to connect with tutors and students forums for students to connect with each other. The official *You Tube* channels and a range of educational podcasts at *iTunes U* are available for student use. In addition to these innovations, the university allocates each student a tutor on registration to support the student until the end of the students' studies. The tutor works as a generic tutor who assists the student with any challenges and as a motivator. This tutor works in tandem with other subject tutors to support the students (UKOU, 2016).

The UKOU is successful in the use of online learning approaches. The success seems to be expedited by the admissions policy of the University where one of the requirements is that a student has to be in possession of a computer as the main requirement. The courses conducted are also interactive and promote communication between the tutor and students and between the students themselves.

3.2.3 Indhira Gandhi National Open University (IGNOU)

An Act of Parliament established the Indhira Gandhi National Open University in 1985 as an ODL institution (Sharma, 2001; Vyas-Doorgapersad; 2011; Government of India, 2016). Because of the vast spread of students all over India, the university has established regional centres to bridge the distance that students experience (IGNOU, 2016). The University offers to provide access to all segments of the society and reach out to the disadvantaged by offering programmes in all parts of the country at affordable costs by means of a variety of media and the latest technology. The University also partnered with reputable public institutions and private enterprises to provide learning opportunities for its students and uses both online learning and face-to-face tutoring to provide education to the students. Over and above, the University has lived up to the expectations of the country to provide education to the marginalised. The University has two thousand six hundred (2600) learning centres countrywide and every regional centre has its own list of subjects to be offered. Students have a larger number of qualifications from which to choose. They can apply for enrolment at particular regional centers or any other centre of their choice for a particular qualification. The library and study centres are available for studying purposes during working hours for students who would not have access to the Internet and Computers (IGNOU, 2016).

Considering the vast rural nature of India, the National Open University of India has as its focus the development of rural, poor areas by expending almost 10% of its budget to the poor rural areas (Government of India, 2016). In these areas of the North Eastern Regions, the IGNOU has established eight (8) regional centres to support students. The ICT'S are used extensively for teaching and learning and the university partners with Government departments and Non-Governmental Organisations to establish and facilitate learning through technological innovations. In this way, education has the potential to reach every village, home and hut so that the rural poor could be empowered. To this end, ODL methodologies are used to empower the rural masses and functionaries alike, and this has made IGNOU to be among the prime educational institutions not

only in the country but also on the Indian sub-continent. It is now ranked 17th among the universities of the Indian sub-continent by Webometrics ranking of world universities (Vyas-Doorgapersad, 2011:55; IGNOU, 2016).

3.2.4 Open Universities Australia (OUA)

The Open Universities Australia is a product of a group of Australian Universities that joined hands to provide education to people who would not have had the opportunity to access higher education. Open Universities Australia was established in 1993 as an online higher education organisation in the form of the Open Learning Agency of Australia, which later became the OUA in 2004.The Open Learning Agency of Australia partnered with several universities in Australia to provide distance learning education to the wider communities throughout Australia. Such universities are Monash University, the Australian National University, Curtin University of Technology, Griffith University, Macquarie University, The University of Queensland, RMIT University and the University of South Australia. Currently, the seven Australian Universities that include Swinburne University own OUA. Courses available are offered from these founding universities and other partner universities. Students have the opportunity to enroll for courses from these different partner universities and graduate at the last university where they enrolled as an OUA graduate.

Additionally, the OUA offers tuition online to students world-wide. Students are required to have access to the Internet for them to study at OUA. Study material is supplied in print or fully online where access to the Internet is a requirement. The print format of study material comprises content, learning activities and assessments. However, contact for any support services would still require email. So, the admission requirements are strictly computer skills that meet the OUA minimum computer requirements and the students' proficiency in English. There are no prerequisites to enroll at OUA. Admission is entirely open without the requirement of a high school qualification for undergraduate students. To ensure that students have less challenges with their studies once they get started, OUA offers a range of support programmes starting with *OUA Pathways* to assist those students who are not sure of their choice of study and *Preparatory unit* to help students to get off on a smooth start once they register, particularly those students who are new to the university or have not studied for a while. Preparatory unit helps students to grasp the basic tertiary and online education skills. *Smarthinking* is an additional support programme that is used by a generic tutor to guide and assist students on a variety of learning challenges they could be experiencing.

Blackboard mobile is also available to enable students to logon to their courses using mobile phones and this is popular among OUA students. *Open class* is another support programme that allows students to learn using social media.

In order to enhance students' experience through online learning, OUA in 2012 focussed its attention on ensuring that students are actively engaged in learning. The aim is to make sure that students are having a positive experience online. Students' personal experiences and their individual circumstances are taken into consideration through the use of best technologies (Media Centre, 2013). OUA *Library Connect* programme established partnership with local Libraries to support new students with online computer challenges by providing them with training offered by the OUA connects Library Officer. Such partnerships are available throughout Australia and as in 2013, eighteen partnerships were established across both New South Wales and Victoria (OUA Annual report, 2013:20) to help students to access a computer, find out about resources and support services that can assist them with their studies and also the opportunity to meet their study buddies. To this end, the OUA is not oblivious of the possible challenges that some rural students might experience. ODL universities in the African countries and other Asian countries followed a similar path as the UKOU and European ODL institutions.

3.3 OPEN UNIVERSITIES IN AFRICA

3.3.1 A brief overview on the establishment of open universities in Africa

In Africa there are many ODL institutions that are currently operational. One of the first to be established is the University of South Africa in 1946 as a distance education institution (Ngengebule, 2003). Other ODL institutions followed with the establishments of Open Universities in Nigeria, Tanzania, Zambia, Zimbabwe, Sudan and Ethiopia, to mention but a few. Some dedicated ODL Universities still have to be established in Kenya, Ghana, and Botswana (Kabaji, 2016). However, open learning programmes are currently taking place in the various contact universities of these countries. The ODL Institutions below are selected because of the ODL developments that are currently being practised in Botswana and Kenya, and because of the vastness of Nigeria and some rural elements dominating the three countries. Botswana is also selected because it is in SADEC and it is a fairly politically and economically stable country such as Kenya. It is therefore assumed that a study of these three universities might yield adequate insight into the ODL developments in Africa and probably learn from their ODL practices.

3.3.2 University of Botswana (Centre for Continuing Education)

The University of Botswana is a conventional university offering teaching through face-to-face delivery (Boitshwarelo, 2011; Nage-Sibande et al., 2011; Oladokun, 2012). Because of the high influx of applicants who could not be accommodated in the tertiary institutions available in Botswana, the Tertiary Education Council resolved in 1994 that an ODL mode of teaching and learning be introduced in higher education (Boitshwarelo, 2011; Nage-Sibanda et al., 2011). The University of Botswana through the Centre for Continuing Education was identified to take the lead in ODL development. It was envisaged that the Centre for Continuing Education would be in a position to provide access to students who have full-time employment and therefore would not be able to attend the classes offered at the University. The Centre started by providing teaching and learning through conventional means after-hours. Later in 2007 the University of Botswana introduced online learning in some programmes in order to cater for those students who would not be able to attend conventional classrooms due to time and distance constrains (Boitshwarelo,2011; Nage-Sibanda et al.,2011). Blackboard, which is a learning management system used by the University of Botswana was used to access uploaded courseware. The course content enabled interactivity in terms of collaboration and activities.

Boitshwarelo (2011) finds that the introduction of online learning in the ODL programmes at the University of Botswana was not without its own challenges. He further states that such challenges included; the inability of students to access the e-library from outside the University of Botswana campus; student access to computers with Internet as most of the working students used computers during their working times at work; inaccessibility of university computer laboratories after hours; and the university server, which would sometimes be down at the time when students wanted to use the Internet.

Nage-Sibande, Vollenhoven and Hendrikz (2011) note that it was found that the Ministry of Education is partly responsible for some challenges that forestall the implementation of ODL in Botswana. They report that the slow implementation progress of ODL in Botswana is influenced by the inadequate commitment from the Ministry of Education. For instance, the funding model (study grants or loans) for students is available to those who attend full-time and face-to-face classes only. Part-time and ODL students only receive funding on completion of their studies. There is inadequate funding for ODL development. The Centre for Continuing Education relies on face-to-

face lectures to develop study packages and provide teaching. It does not have dedicated staff of its own to provide teaching and learning. The lecturers providing teaching are not committed to the programme because there are no incentives built into the efforts they put into ODL programmes. This leaves many ODL students despondent about the programme as a whole. Blackboard, which is used as learning and teaching resource, is accessible on campus and therefore benefits the already advantaged face-to-face students. Nage-Sibande et al. (2011) recommend that commitment to innovations should be effectively demonstrated by the commitment of adequate and relevant resources, policies, planning and the effective monitoring of implementation. These comments reflect a long journey that still awaits a complete offering of ODL in Botswana in order to meet the ODL standards as anticipated by the CoL.

3.3.3 National Open University of Nigeria (NOUN)

The National Open University of Nigeria (NOUN) was established in 1983 as a dedicated distance learning institution in Nigeria (Ambe-Uva, 2007) and is the largest in Nigeria and West African sub region. As in 2016, it has a total student enrolment of 455 837(Agbu et al., 2016:112) compared to all other Nigerian Universities. According to NOUN's Website, NOUN has over sixty-two study centres scattered in all states of Nigeria and it offers limited teaching in the form of tutorials at those centres. NOUN's teaching model is in the form of online systems and much of the communication with students and communities takes place online (NOUN, 2015). Students from all walks of life and deferent socio-economic backgrounds enroll at NOUN and the admission requirements for undergraduate studies are relaxed in that matric qualification is not a requirement for most of the courses. This open access policy makes higher education to be available to even those people who would otherwise not have access to a University.

NOUN developed and uses *I-Learn* technology portal to provide teaching and learning in the form of online class discussions organised by tutors and facilitators and also posting of self-assessment tests, assignments, quizzes and self-study tools. The portal also provides a platform for collaborative learning amongst students themselves. Additionally, the portal provides for general usage support such as; technical support in the form of 'Intro Videos' which guide the student on how to use the various functionalities and announcement portal for general announcements called '*My News'* (NOUN, 2015).The student admission process is conducted strictly online and all prospective students are required to apply online and pay the registration fees at the selected

Banks provided by NOUN (NOUN 2016). This procedure is responsible for catering to those students who would otherwise not be able to travel to NOUN headquarters for registration purposes. The regional centres established are well-resourced with computers for purposes of access to the Internet and conducting online examinations for all undergraduate students in the first and second year levels of study. *NOUN Radio* is also used for communication and teaching purposes in the whole of Nigeria and in this manner, all students in the length and breadth of Nigeria are able to access the station (NOUN, 2016). The challenges NOUN faces are however prompt availability of print form study material to students as some material take time to reach the students. This leads to various complaints from students ranging from study material availability to examination results that are sometimes not accurate, as seen from the complaint by a certain student on the student portal (NOUN, 2015).

3.3.4 Jomo Kenyatta University of Agriculture and Technology (JKUAT)

The Jomo Kenyatta University of Agriculture and Technology (JKUAT) is one the best universities in Kenya to provide education through technology. It offers tuition in both campus-based and distance learning formats. With its strong background in ICT's, it has successfully implemented open, distance and e-learning programmes in its campuses. Being the leader in ODL in Kenya, JKUAT has mentored several universities in Kenya on the implementation and sustenance of e-learning modes of teaching and learning (JKUAT, 2015). Likewise, the mode of delivery in JKUAT's School of Distance Learning is primarily online, beginning with registration and then followed by teaching and learning and assessment using the learning management system.

In order to prepare students for online learning, the University requires students to attend two on-campus sessions for orientation purposes and attendance is compulsory. Moreover, in the study by Kihoro, Muya and Ibukah (2014) it is reported that student orientations were found to be positively received by students who attended. Students who fail to attend the orientation sessions are considered not to have registered with the university. In these sessions, students are introduced to the online learning systems and assisted on how to access and use the systems. In the process of learning, students are expected to undertake online activities as guided by the module facilitator and assignments may be submitted online. The disadvantage for students is the cost involved when printing downloaded learning material however, of higher premium is the support provided to students about orientation to the learning management system and the mode

of teaching, albeit with other challenges such as students having no computers and poor connectivity (Kihoro et al., 2014).

Overall, Kenya still has to establish a dedicated ODL Institution which will be known as The National Open University of Kenya and the process for its establishment started in 2011(Nganga,2010; Kabaji,2016).The Kenyan government established a task team in 2014 to steer the establishment of the National Open University of Kenya. The task team involved in the establishment of the National Open University approached the staff of the Jomo Kenyatta University of Agriculture and Technology to provide mentorship and guidance in the planning and final establishment of the university (JKUAT, 2015). The University is planned on the model of the UKOU in terms of admissions, teaching and learning, and assessment. However, Kabaji (2016) maintains that there has been more talk than action towards the establishment of the National Open University of Kenya. Its establishment is long overdue. He further posits that Kenya could follow the example of South Africa regarding the role UNISA plays by providing education to the masses that would not have had the opportunity to gain entrance in a tertiary institution. Taking a cue from Kibaji, the South African Open Universities landscape will now be reviewed in the following sections.

3.4 OPEN AND DISTANCE LEARNING IN SOUTH AFRICA

3.4.1 Brief overview of legislative background towards an expanded ODL landscape

The Education White Paper 3 provided an environment for the establishment of a National Plan for Higher Education to address the size and shape of higher education institutions in South Africa (Republic of South Africa, 1997:12). Through the Higher Education Act 101 of 1997, the National Plan for Higher Education was finally issued by the Department of Higher Education and Training (DHET) (Republic of South Africa, 2001) to complete the mandate provided by Education White Paper 3 in the form of the far reaching implications for higher education such as; the reduction of universities by merging some of them with other stronger universities; the realignment of the programme mix at each institution to ensure that the institution responds to local, regional or national needs; the lifting of the moratorium on the introduction of new distance education programmes in contact institutions and the establishment of a single dedicated distance education institution to address opportunities of access and redress of past inequalities, and several others. Because of these proposals, the dedicated distance education institution was established by merging the University of South Africa with Technicon Southern Africa and incorporating the

distance education centre of Vista University to form the new University of South Africa (Republic of South Africa, 2001:4.5). Some contact universities such as the University of Pretoria, North-West University, the University of Kwa-Zulu Natal and a handful of others offered distance learning programmes on a very limited scale on the proviso that they have acquired state approval to offer such courses(Republic of South Africa, 2001:4.4.1: DHET,2013:50).

The National Plan for Education (2001) lifted the moratorium on distance education provision by conventional higher education institutions and the 2013 White Paper for Post School Education finalised its implementation by allowing all higher education institutions including Further Education and Vocational Colleges to participate in offering distance education. This permission would however be conditional to the institutions' justification of a particular programme offering in terms of its mission and overall profile as well as the nature of the programme concerned (DHET, 2013:51). The provision of distance learning would therefore no longer be the preserve of a few distance education institutions. UNISA would no longer be the only higher education institution that offers distance education programmes. This section of the study is therefore going to present the implications of the 2013 White Paper for Post-School education and training on distance education and the contributions made by universities such as North-West, Pretoria and Kwa-Zulu-Natal to distance education in their campuses. The final section will provide an overview of the status quo in UNISA; starting with the past practices of ODL in UNISA, the current and future goal that would make UNISA to be a fully-fledged ODL Institution in the mold of the UKOU and other best international ODL institutions.

3.4.2 The white Paper for post school education

The 2013 White Paper for Post School Education and Training is preceded by Education White Paper 3 of 1997, which advocated for the transformation of higher education. The National Plan for Higher Education (NPHE) was later approved by Parliament in 2001 to restructure higher education. The purpose of the NPHE was to facilitate the reduction of the number of tertiary institutions in South Africa that resulted in some mergers of some universities into twenty - three (23) in total (DHET, 2013:4.1.) UNISA was merged with Technicon South Africa while VISTA was incorporated into the new merged dedicated Distance Education University (Republic of South Africa, 2001:4.5). Although a moratorium existed regarding the establishment of distance learning practices in some conventional universities, the NPHE lifted the moratorium in 2001 and provided

a platform for the 2013 White Paper for Post School Education and Training to implement the lifted moratorium. In this case, conventional universities would be allowed to introduce distance learning in order to widen participation of students in tertiary learning. According to the White Paper for Post School Education and Training, the provision of distance learning would no longer be the preserve of UNISA and a few higher education institutions such as University of North–West; University of KwaZulu-Natal and the University of Pretoria(Republic of South Arica,2001; DHET,2013:50 -51).

The 2013 White Paper emphasised the need to provide distance education in various forms such as online learning(ICT's) and committed itself to collaborating with the Department of Communications and other government departments and stakeholders to facilitate increased bandwidth and reduced costs for educational purposes, with particular emphasis on reaching the communities in more remote areas. It further commits the DHET to facilitate the shared establishment and management of ICT-enabled, networked learning support centres in areas where home-based provision is likely to be difficult in the short to medium term, among other initiatives (DHET, 2013).

To further provide support for the expansion of online learning in higher education, the White Paper requires that teaching and learning interventions using computers should be carefully planned. It emphasises that the success of an educational programme be determined by its pedagogical strength and not by the integration of Information Communication Technologies (ICT's), which can sometimes be used poorly or as a gimmick (DHET, 2013:53). The challenges facing access to online learning are acknowledged concerning the digital divide and it is emphasised that staff and students should not only have access, but they should be in a position to use technology effectively (DHET, 2013:7.4). In this regard, the DHET commits itself to the provision of funding for the human resource development in order to realise this objective.

As indicated above, it is reflected in the White Paper for Post School Education and Training that distance education is currently not only provided by UNISA, but that there are other universities such as North West University, the University of Pretoria, the University of KwaZulu–Natal and a few others that offer distance learning on a limited scale (DHET, 2013:7.2.1). The White Paper therefore expanded the provision of higher education by permitting all contact tertiary institutions

to provide distance education, with the proviso that they would be required to justify the need for such a requirement and obtain permission from the DHET (DHET, 2013:7.2.1).

Reflecting on the above implications of higher education regulations and legislative developments, the distance education landscape in South African Universities of North-West, Pretoria, KwaZulu - Natal and UNISA will be explored as a focus area to highlight the use of online learning in their distance education campuses.

3.4.3 ODL context at University of North-West

North-West University (NWU) is a contact education institution offering distance learning in selected modules. The University started offering distance learning in 2001 and finally established the Unit for Open Distance Learning in 2012 (NWU,2015). The modules offered in distance learning are teaching, which includes the B.Ed. Foundation Phase degree, Bachelor of Theology degree, Bachelor of Arts in Public Governance with Policing Practice and Nursing programmes for practicing nurses. The University established thirty-five teaching centres, which culminated into sixty-three centres throughout Southern Africa for contact sessions. Tutorial delivery takes place primarily through interactive whiteboards offered from the main campus or any other campus to various centres. Tutors and lecturers provide tutorials on a weekly basis at these centres and supplemental support is provided online with the Learning Management System platforms called *e-Fundi* (NWU, 2016).

E-Fundi enables students to access study material online, submit their assignments, discuss with the lecturer and with other students. The University has made it compulsory that all students have a computer, laptop or cellphone that is compatible to the minimum technology requirements of the NWU, because without any of these tools, students will find it difficult to learn through ODL at the University. Besides having personal computers and all other technologies required, some students were found to be lacking computer skills and searching for information from the network was a challenge and, a research study conducted at the NWU recommended that “a course in basic information technology skills be made available to equip students with technological skills” (Geduld, 2013:121).

Student academic support is offered on weekends through face-to-face tutorials or interactive whiteboards streaming tutorials to all centres that are off-campus. According to the NWU Website on distance learning, the interactive lectures presented at the teaching centres allow students to pose questions to the lecturer and to other students in their group (NWU, 2016). Students can also attend the streamed lectures from their computers at home and the university provides technical support and the necessary software to students free of charge. Another was to which the support is given is by recording and saving all lectures on the internet to be viewed by students at any time suitable to them and as frequently as they require.

In response to the 2013 White Paper for Post-School Education and Training, the NWU plans to increase the number of programme offerings through distance learning by the end of 2016 and during 2017 (NWU,2016). In this way, the Unit for Distance Learning will be in a position to cater for a larger student population as envisage in both the Education White Paper 3 of 1997 and the 2013 White Paper for post School Education and Training (Republic of South Africa, 1997:1.13; DHET, 2013:2.3).

3.4.4 ODL Context at the University of Pretoria

The University of Pretoria (UP) is a contact university with some online and distance learning options mostly in postgraduate studies. The decision to offer distance learning was started in 1994 and in 1997 began with the development of online learning programmes (Zawacki-Richter, 2005). With the introduction of technology in teaching and learning, the Department of Telematic Learning and currently (2016) known as the Department of Education Innovation, became the driver for the roll-out of online, technology enhanced learning in the form of Web-based learning, Television broadcasts, Video Conference and Satellite delivery (Zawacki-Richter, 2005; UP, 2016).The services provided by this Department are in the form of student academic support, the availability of education consultants for staff when developing online programmes, and the management of *E-Education* on the development of online courses, and several others. Their services are spread to all Academic Departments in the University of Pretoria.

The Learning Management System (LMS) established is used to support student's learning in the form of interactive participation between students and lecturers and among students. It is

comprised of *Blackboard Learn*, *Blackboard Mobile* and *Blackboard collaborate* to support blended learning and provide administration information needed by students (UP, 2016).

In addition, after the realisation that many students at the university do not have Internet access, the UP introduced other media like CD ROM, SMS technology, situated site visits, third party software and email in innovative ways to engage students outside the classroom. This service is mainly used for distance students who live in areas where technologies might be a challenge. In order to extend online support to all students including distance-learning students, the University Council (UP, 2014:13) approved a proposal for the development of a hybrid model of instruction that will promote the wider use of technology, particularly online, in future. It is assumed that this model will be suitable to reach more particularly students in rural areas.

3.4.5 ODL context at University of KwaZulu-Natal

The University of KwaZulu-Natal (UKZN) is a contact university with some distance education division that offers tuition to off-campus students. The University has six learning centres spread across KwaZulu-Natal to support distance-learning students. The tutorial support takes place on Saturdays in Durban, Pietermaritzburg, Ladysmith, Newcastle, Port Shepstone and Empangeni. Students can receive assistance from the tutors and interact with other course participants. The qualifications offered are only for practicing teachers and nurses.

As a response by UKZN to the 2013 White Paper for Post-School Education and Training the UKZN according to Deputy Vice–Chancellor for Teaching and Learning (2015) launched *Moodle* in 2016 and it is intended to be implemented in all undergraduate modules and postgraduate modules by 2018. *Moodle* is the UKZN official Learning Management System used to provide online learning support to all students, whilst students are required to have a laptop or computer with Internet to access it (UKZN, 2015). Likewise, it is used for downloading material that lecturers post, for submitting assignments and engagement in discussion forums with other students and lecturers. The university lecturers are also trained on how to upload a comprehensive tutorial for teaching purposes, including posting assignments. This training enables them to implement the online learning model at UKZN (UKZN, 2015).

Arrangements have been made with various service providers, such as Student Technology Programme (STP) to ensure that all UKZN students are able to acquire laptops at a discounted

price. This arrangement has the potential to enable UKZN to rollout online learning with fewer challenges compared to other institutions that introduced online learning.

3.5 OPEN AND DISTANCE LEARNING AT UNISA

3.5.1 Historical background

The University of South Africa (UNISA) started as a correspondence education institution in its early days and later transformed into a distance learning institution that provided minimal face-to-face tuition. The face-to-face tuition was started with the help of the South African Committee for Higher Education (SACHED) that was a private organisation specialising in learner support. SACHED started its services in 1971 and this culminated into the establishment of a Unit for Student and Tutorial Support in 1995 (Ngengebule, 2003). In support of the activities of this newly established tutorial Unit, the university established regional centres to provide students with access to support services such as registration support, examination support and learner support in the form of tutorial classes. Regional centres were established in all cities of South Africa such as Cape Town, Pretoria, Johannesburg, Durban and Polokwane (Ngengebule, 2003). Likewise, after the merger with Technikon Southern Africa and the incorporation of VUDEC (Vista University Distance Education Centre) in 2004, the University's enrolment numbers increased exponentially and the current student enrolment stands at 400 000 students. This positions UNISA as a mega-university in Africa and among the largest universities globally (Makoe, 2012; Agbu et al., 2016). Providing teaching and learning becomes a challenge in such an environment and in line with the standards of ODL Institutions as required by the CoL, UNISA introduced online learning to provide teaching and learning to all students irrespective of their locations (CoL, 2007). The next section provides an overview of teaching and learning practices as they evolved, including the introduction of online learning and its anticipated future role as envisaged by UNISA.

3.5.2 UNISA's past ODL practices

After UNISA's departure from a correspondence model of teaching and learning, the Unit for Tutorial Services (UTS) was established in 1995. The purpose was to respond to the growing demands of all students in the 1990s for quality education (Ngengebule, 2003; Daniel, 2011). SACHED had also made some significant improvements in terms of student support in UNISA between 1971 and 1994 as UNISA joined with SACHED to establish the UTS. Tutorials would be offered in all the regional centres that UNISA established at the time such as Polokwane, Pretoria,

Cape Town, Johannesburg and Durban (Ngengebule, 1998:10). Tutorials were offered through a face-to-face medium and in 1996 the provision of computer-based support started on a limited scale for students who had access to their own computers and later in 1997, the first computer centres were established as a pilot by UNISA (Ngengebule, 1998:18). The setting up of these computer centres was a sign of UNISA's drive to provide distance education that would serve the needs of all distance learners irrespective of place or time in an interactive manner. This determination is well encapsulated by the then Vice-Chancellor and Principal of UNISA, Prof Wiechers, when he called on all UNISANs when he remarked:

"Our *teaching must not be confined to our magnificent campus. Let us speak, walk around our campus–South Africa and other countries – and teach our students directly and not at a distance, by means of well-designed, self-instructing course material, and with the aid of modern technologies"* (Wiechers, 1996) in (Ngengebule, 1998:20).

As a consequence, to this vision, when UNISA merged with Technicon SA in 2004 the number of regional offices and tutorial centres increased to include other South African cities and rural areas such as Nelspruit, Rustenburg, Bloemfontein and East London, and the satellite offices in the more remote areas of the regional center such as at Giyani, Newcastle, Mafikeng, Kroonstad, Kimberly, Port Elizabeth, and several other places (UNISA, 2013). The drive to provide student support using computers was also accelerated through the establishment of computer centres at most Regional Offices and the introduction of the *myUnisa* portal as a student support facility. The *myUnisa* portal was mainly for administrative use in terms of obtaining examination results, posting assignments and downloading study material. Teaching and learning were at the periphery until after 2007 when the Commonwealth of Learning (CoL) Trial Audit Report on UNISA advised that instead of students downloading material from this portal, there should also be some form of teaching through the medium of technology (CoL,2007).

3.5.3 UNISA's current ODL practices

The CoL visited UNISA in 2007 to conduct a quality trial audit that encompassed all services including the UNISA teaching and learning practices as an ODL institution (CoL, 2007). According to the CoL ODL institutions are expected to provide adequate student support in the form of face to face tutorials, online support using the Learning Management System (at UNISA is called *myUnisa*), various media options in the form of video conference facilities and also online teaching

and learning in the form of *e-tutoring*. The CoL Trial Audit Report found UNISA to be compliant through the availability of *myUnisa* and tutorial centres. The CoL however emphasised that the mere availability of learning material on the Learning Management System does not imply online learning because there is no teaching that takes place. The Learning Management System was used as a media for students to download study material and view their assignment scores, which were found to be insufficient (CoL, 2007; Makoe, 2011).

Additionally, in 2008 UNISA established the Institute for Open and Distance Learning in order to drive online learning programmes as required in an ODL Institution. The Institute started advocacy of online teaching and the design of online subject content among various departments and later in 2013 the Integrated Tutor Model (Which in UNISA implies blended learning) was introduced (UNISA,2016). Blended learning is a form of teaching and learning which comprises both e-learning and face-to-face tutoring. It can be implemented in a particular module by way of providing teaching and learning through both online and face-to-face learning. When online learning was introduced, many lecturers and students were not yet technologically skillful to use this form of teaching and learning (Baloyi, 2012; Kunene, 2015). As a result, the University embarked on an advocacy and training drive to enhance the lecturers' attitudes and students' willingness to use the online portals available. Some partnerships were also concluded with media companies such as Vodacom and MTN to provide students with the 3G tool so that they can access the online portals. UNISA Regional Offices also entered into partnerships with community multi-purpose centres as a means to help students in rural areas to access computers and the Internet (UNISA, 2016). Consequently, the students would not need to travel to towns or UNISA offices to access the Internet and computers. UNISA also established *Wi-Fi* at all its offices to expedite the possibilities of students having access to the Internet. In spite of all these efforts, online learning remained inadequately used by UNISA students (Mbatha & Naidoo, 2010; Letseka & Pitsoe, 2013).

Moreover, after the 2007 CoL trial quality audit visit to UNISA the role of *myUnisa* was expanded to include not only the dissemination of electronic study material, but also other portals that support teaching and learning. This included discussion forums, where discussions on a particular topic would take place between lecturers and students, among students themselves and on assignment submissions (Unisa, 2008). *E-tutoring* was linked to *myUnisa* and represented a resource for electronic materials and lecturer postings of additional learning materials that would include

examination guidelines. In *e-tutoring*, the part-time tutor is responsible for facilitation of learning online. The lecturer only monitors the interaction but does not participate. The e-tutor is provided an e-tutor site that would consist of two hundred students. The e-tutor site consists of a discussion forum portal where teaching and learning takes place under the facilitation of an e-tutor. Weekly learning activities are posted by the e-tutor on the site for discussions between students and the e-tutor and among students themselves. The discussions take place synchronously once per week and asynchronously throughout the week (UNISA, 2016). The findings from a number of studies conducted at UNISA revealed that students still inadequately use *e-tutoring* (Letseka & Pitsoe, 2013; Mbatha and Naidoo, 2010; Mashile & Pretorius, 2003; Makoe, 2011; Pitsoane, et al., 2015). This is an indication that UNISA currently faces many challenges regarding the implementation of online learning and teaching among some students, which was also expressed by the UNISA SRC (2015) in a memorandum voicing their discontent.

The current challenges in respect with the use of online learning in UNISA are manifold; they range from student concerns, institutional shortcomings and staff challenge (Ncube, Dube & Ngulube, 2014). Furthermore, with regard to staff, the challenges involve the regional ICT staff who are expected to provide support to e-learning students and the regional academic support staff who are in the forefront of regional academic support. *E-tutoring* has been established as a responsibility of the colleges and lecturers who drive it. Regional staff are not expected to involve themselves with *e-tutoring*. Thus it could be argued that the lack of synergy between the regions and colleges has the potential to limit the amount of e-learning support students should be provided (UNISA, 2016). According to the CoL, regional centres are the hub where student support should be expanded and the unavailability of e-learning support from these centres has the potential to be oblivious of student needs. Regional Centres mostly service rural students and it seems to be a known fact that most of these students matriculated at poorly resourced schools (Mays, 2000). This strongly implies that the online learning challenges faced by rural students may continue unattended and unknown if Regional Centres are not provided with an opportunity to be actively involved in *e-tutoring* activities.

3.5.4 UNISA's envisaged future ODL practices

Some of UNISA's 2016 strategic focus areas are to becoming a leading ODeL, comprehensive university in teaching and learning, research, innovation and community engagement based on

scholarship (UNISA, 2016). The ideal with this vision is for UNISA to ultimately attain the status of an open distance e-learning institution. In this scenario, all programme offerings will be fully online, including some administrative functions related to application, registration systems and distribution of study material. However, Ashton (2012) states that UNISA continues to experience many challenges of ensuring that online learning is a way of learning in all the modules it provides. Ashton records that the problems experienced are that many queries are either unanswered for unacceptably long periods or are never resolved at all. Accordingly, rural students have to travel long distances to access electronic communication points to pay a fee for email usage, fax or Internet access. Studies conducted by various researchers in UNISA also revealed the prevalence of this challenge. Most of these studies were conducted at regional centres among urban students who spend more time in the cities. The digital divide among these students was found to be a problem. Many older, rural students are not able to access the online learning systems. Poverty, coupled with poor educational background are viewed as contributing factors for this deficiency (Mashile & Pretorius, 2003; Mbatha & Naidoo, 2010).

Institutionally, UNISA also experiences some internal challenges which make the provision of online learning systems to take place be at a slow pace. Ashton (2012) contends that it is alleged that queries to tutors and lecturers are not responded to. By implication many lecturers still find it difficult to fully embrace online teaching. For example, few lecturers in the University use *JROUTER*, which is an online marking tool. To compound the problem, face-to-face tutors at regional offices have not been provided with access to *myUnisa*. Some colleges responsible for teaching and learning have not yet understood the essence of providing tutors with access to *myUnisa*. Time is fast running out for UNISA to be on the ODL level that is required by the CoL, namely that all teaching and learning should be delivered online. Once this stage of reaching the ODL model is attained, UNISA will become a true Open Distance e-Learning (ODeL) Institution.

The UNISA Principal launched UNISA's 2016-2030 Strategic Plan in April 2016 to communicate the UNISA roadmap for the attainment of a fully functional Open and Distance e-Learning (ODeL) Institution (UNISA, 2016). The ODeL model carries with it the use of online systems in all institutional practices of teaching and learning, encompassing some administrative practices such as study material production and distribution, provision of support programmes and implementation of online assessment practices. The Strategic Plan envisages to having the ODeL business model

and its systems fully in place and implemented by 2020. This means that in 2020 all modules will be linked to e-tutors and offered completely online as face-to- face tutorials would be faced out or some degree of blended learning allowed to take place in some modules. The Strategic Plan envisages that 2025 will be to enhance the delivery systems and by 2030 UNISA will have achieved a sophisticated ODeL model, with limited blended learning in some modules.

In preparation for the attainment of the 2016–2030 Strategic Plan, UNISA has already started with some initiatives to ensure that the environment is conducive for the realisation of online learning and ODeL systems by 2020 (UNISA,2016). Numerous programmes are in place already to take stock of where the University failed regarding the rollout of online systems in some areas and also programmes to ensure that students are not left behind when ODeL is finally launched. Some modules which are fully online (signature modules) are available to prepare students for the online environment (Baijnath, 2014). These modules are compulsory and available in every qualification. Teaching assistants are appointed to support students enrolled in these signature modules and are trained to support the students. Students are awarded credits for participating in the discussions. To further support students, mobile buses branded with the UNISA logo have been purchased by UNISA to travel to mainly rural areas to provide some computer training. Currently UNISA Limpopo also has such a bus.

Additionally, colleges at UNISA are geared to visit regional centres to conduct *e-tutoring* orientation programmes for students so that they are familiar with the e-tutor platform. E-Tutors would also be trained periodically on the appropriate methods of facilitating an online tutorial so that students could feel motivated to engage the *e-tutoring* platform.

It is therefore envisaged that once all the plans set are achieved, UNISA will be a fully-fledged online learning institution and students' usage of online systems would be improved by 2030 (UNISA,2016).

3.5.5 Online learning developments at UNISA Limpopo

Online learning in the UNISA Limpopo Region is also a focal area of student development. Since 2010 the Limpopo Regional Operational Plans highlighted, in line with the UNISA 2015 strategic Plan, one of its strategies as to facilitate the maximum use of technologies to deliver services to students (UNISA, 2015). The following initiatives were undertaken to ensure the achievement of

the set objectives: Well-resourced computer laboratories were established to enable students to download and upload their study material as well as engage in other teaching and learning activities. Additionally, Tele-centres/community centres with functioning computers were identified and partnered with to provide support for rural students or areas not within reach of the regional learning centres. Wireless connection (WiFi) was established at the regional centres to provide Internet access to all students visiting the campus and partnerships were concluded with mobile service providers such as Vodacom and MTN to provide students with discounted 3G contracts(UNISA,2014:17). Qualified ICT staff carries out the responsibilities of assisting students with the use of computers and the training of staff at the Tele centers.

The Limpopo region currently has 15 Tele/multi-purpose/ community centres centres where students can visit to gain access to computers and the Internet (UNISA, 2016). The UNISA regional staff visits the Tele centres to provide training to students in online platforms and computer usage. There are however some challenges regarding the inadequate usage of the Tele centres. Students reported the following challenges when interviewed at orientation meetings and at their tutorial classes; that they do not know where the Tele centres are located and some saying that the broadband is low at the Tele centres and causes some frequent interruption to connectivity. The utilisation of these Tele centres by students is inadequate. This picture of Tele center usage may make one to assume that it is a contributory factor that makes students not to use online learning systems adequately or at all. This study therefore has the potential to promote a better understanding of the challenges students face regarding the inadequate usage of online learning, in spite of all the available resources UNISA is providing.

3.6 SYNTHESIS

This chapter explored the ODL developments and practices taking place at international universities and in Africa, with respect to online learning support. The South African ODL context and UNISA's ODL practices and vision were also highlighted to provide some picture of the current status of ODL. The lesson learned is that ODL, using online methods, may indeed be a viable vehicle for the provision of higher education to the masses, most of who would be at locations distant from the institutions they would like to learn. The provision of distance learning through online technologies appears to be an added advantage for most ODL Institutions. The UKOU opened the way for more accessible learning opportunities and this laid the groundwork for other

ODL Institutions in the world. The challenges experienced by international ODL Institutions differ from those experienced by ODL Institutions in the developing world. These challenges range from funding, commitment by the state and the offering institution concerned and infrastructural inadequacies, particularly in rural areas. Poverty in the African landscape is one other mountain to climb.

The African and South African landscape appears to have the potential to reach the level of international ODL institutions. The commitment from member states as seen in Nigeria, Kenya, Botswana and South Africa is encouraging. Even though, these countries are confronted with the infrastructural and poverty challenges, still, are exploring viable means of providing online learning in a cost effective and accessible manner, such as the use of cell phones (Makoe, 2012). New as they are in the ODL environment (2015) Kenya and Botswana are already dealing with the process of establishing state supported dedicated ODL Institutions while South Africa as one of the leading proponents after the UK, is in the process of allowing more institutions to offer and participate in ODL provisioning as articulated in the White Paper for Post-School Education and Training (DHET, 2013).

In the case of UNISA, the rural vastness of the South African landscape, coupled with economic and infrastructural weaknesses, have the potential to affect the online delivery as envisaged. Poor and inadequately resourced rural schools have the potential to contribute negatively to the online learning challenges of students as a result of the large number of the students enrolled who come from rural areas. On the contrary, urban and semi-urban conditions could harness the possibilities of opening-up opportunities for online learning. The cosmopolitan nature of life makes resources to be abundant for individuals to source when they encounter some challenges. The resources could be in the form of access to technologies such as computers, the Internet and Wi-Fi, human resource expertise and the urban culture that enables most people to be enterprising people.

The ODL environment in UNISA reflects a positive outlook. ICT systems in terms of training academics and students are in place and it is envisaged that all modules will be offered online by 2020 and that in 2030 UNISA should be a fully-fledged ODL Institution as per the 2016-2030 UNISA Strategic Plan (UNISA, 2016). This determined commitment by UNISA to rollout online learning is also evidenced in other African countries such as Nigeria, Kenya and Botswana while Kenya and Botswana still have to establish their own dedicated ODL Institutions.

3.8 CONCLUSION

This chapter provided an overview of ODL developments in Open Distance Learning Institutions internationally, nationally and in the African continent. The overview focused particularly on how these institutions use online methods of teaching and learning. Likewise, the progress made by some ODL Institutions in Africa and South Africa was explored whereby international ODL Institutions were used as a benchmark to measure their progress. Based on what was reflected in chapter 3, Chapter 4 will focus on the research process that assisted in shedding some light on the experiences of UNISA students and challenges that they are faced concerning online learning usage. The focus will be on the research design, data collection methods, analysis, and the application of ethics in the study.

CHAPTER 4

RESEARCH METHODOLOGY AND DESIGN

4.1 INTRODUCTION

This chapter introduces the research method and design which were followed in the study to investigate and describe the rural students' online learning experiences. In an attempt to gain some deeper insight into online learning experiences of students in South Africa, an inductive and descriptive contextual investigation into the nature of the students' online learning experiences was executed in the study. Thus, this chapter provides a detailed explanation of the research methodology and design chosen for this study and shows how they assisted in providing a better understanding of the phenomenon that was investigated by way of answering the research question for this study: *How do rural students in the Limpopo region experience the online learning support provided by UNISA as an Open and Distance Learning Institution?*

Additionally, this chapter will also provide the theoretical paradigm, which served as lens or guide through which the study was conducted. In the same way, the research design, data collection methods that were followed, a discussion regarding the research participation sample and the inclusion and exclusion criteria adopted will be provided. Finally, the data collection process and the approach for analysing data collected, concluding with ethical considerations will be outlined.

4.2 THEORETICAL FRAMEWORK

A theoretical framework helps the researcher to view the research from a particular worldview and this determines the research design and specific methods related to that worldview (Creswell, 2014:5). It is a paradigm which forms the lens through which the researcher views reality. There are at least three main positions from which reality is viewed, namely a positivist, interpretive and a critical perspective (Henning, 2004) and each of them has its own approach in viewing ontology, epistemology and methodology.

For example, the positivist view looks at research as taking place independently from the researcher. It views research as an objective exercise which seeks truth through scientific means without taking into account the human nature of subjects (Lincoln & Guba, 1985). It is not concerned with context. It was as a result not appropriate to apply positivism in this study as the

contextual nature of events and issues had to be taken into consideration. The critical paradigm is another approach which views the world from the perspective of the researched and researcher with the aim of changing the world for the better and confront social oppression at whatever level it occurs (Henning, 2004; Creswell, 2014: 9). It seeks to transform and change the world. This approach has a strong bearing on the purpose of the study which was to acquire a better understanding of the rural students' experiences of online learning at UNISA and thereby finding better measures to improve and enrich the quality of their online learning experiences.

On the one hand, the interpretative paradigm emphasises the importance of the involvement of the researcher in the research process in order to better understand the world of the participants, and in this study, it was found to be appropriate as it provides a contextual framework through which the phenomenon will be better understood. It is therefore sensitive to the role of context (Henning, 2004:20) and in a broader sense; it is concerned with giving meaning, which cannot be achieved in isolation from its surroundings. It provides an opportunity for the phenomenon to be understood within its context. It is interested in gaining knowledge about how and why things happen, the potential causes and the social and cultural context of the phenomenon (Huberman & Miles, 2002; Henning, 2004; Denscombe, 2014).

The interpretive framework or paradigm was considered as more relevant in that the study was framed to understand the context of rural students' reported online learning experiences at UNISA, to have a strong handle on what their real experiences were and fully comprehend why things were happening as they were and this was done through inductive reasoning.

4.3 RESEARCH CONTEXT

Chapter 2 presented an outline of Moore's theory of transactional distance. This theory is central in the study in that it was instrumental in providing deeper understanding of students' online learning experiences and factors that resulted in their inadequate usage of online learning facilities. The theory postulates that transactional distance has a strong bearing on effective learning in an ODL environment (Moore, 1993; Moore & Kearsley, 2012; Garrison et al., 2000). They further point out that effective learning in online systems requires student engagement with three variables provided for learning namely, interaction between the teacher and student, between the student and subject content and between the student and other students.

Studies conducted among online UNISA students observe that students inadequately use the *e-tutoring* platform for learning. Researchers found that there are myriad of factors that led to insufficient usage of *e-tutoring* platform for learning (Mashile & Pretorius, 2003; Mbatha & Naidoo, 2010). They go on to say that some of those factors are: poverty in communities, poor infrastructure, digital illiteracy, poverty in their families and various other factors such as societal, educational, cultural, institutional, and the like. In the instance of this study, the experiences and challenges facing rural students should be an area of concern because they are the most vulnerable as a result of the many challenges that beset them such as lack of ICT infrastructure and poverty.

My interest in the study was occasioned by my involvement in student support programmes in UNISA Limpopo. My interactions with students revealed to me some discomfort student leaders had in various students meetings about online learning. I also became aware that students were using online learning platforms inadequately, particularly *e-tutoring*, and that others were completely not using them. Various research articles confirmed this inadequate usage of online learning platforms by UNISA academics that I read. Hence, I decided to conduct a study with a particular focus on the rural students in Limpopo in order to gain a better understanding of the situation from students' own perspective. This study was well positioned in that I am based in a rural Province, which gave me an advantage to understand the situation even better.

4.4 RESEARCH DESIGN

All research practices are guided by a research design to arrive at a logical conclusion. Similarly to a work plan, but not resembling a work plan, a research design is the road map the researcher follows, from the study's initial research questions and, ultimately to its conclusions (Lincoln & Guba,1985). In this study, a descriptive case study was used to provide deeper insight into the problem of students' inadequate usage of online learning facilities.

4.4.1 The case study

Yin (2009:18) posits that a case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real context, especially when the boundaries between phenomenon and context are not clearly evident. Johnson and Christensen (2012) concur that a case study as a research that provides a detailed account and analysis of one or more cases. In

the study, the case study was more appropriate in that it helped the researcher to focus on that single event or phenomenon in detail using multiple cases to discover related variables that would not be under normal circumstances found in a quantitative research study. Also what prompted the researcher to select it is because is not only interested in what goes on in the environment, but also how and why things are happening the way they do (Yin, 2009; Denscombe, 2014). In this instance, the study can provide a better understanding to the researcher of the underlying experiences of selected participants regarding online learning.

Additionally, case study was selected in the study because of its major advantage in research which is to investigate contemporary, real-world situations without manipulating them. Accordingly, this study investigated participants' actual experiences of the phenomenon and their subjective nature towards the phenomenon, which were not interfered with as is likely to be the case in experimental research. Participants in the study were all online learning rural students from Limpopo Province, registered for 2015 and 2016 academic years, and were in a good position to provide rich data for the study.

The 'how' and 'why' questions were used to investigate the phenomenon as they are likely to be appropriate for a case study (Yin, 2009: 27) and the questions were generated from some array of literature sources that focussed on online learning support, which are reflected in Chapter 2 of this study.

The unit of analysis for this study was clearly defined from the research topic, its questions and the proposition, to set clear boundaries. The general view was a focus on online learning support while the specific unit of analysis became more focussed on the academic online learning facility identified as *e-tutoring* usage. The literature sources consulted in Chapter 2 confirmed this unit of analysis, albeit the focus was on rural students.

Among the various techniques of data collection, the case study appropriately allows for the use of interviews in data collection. Individual interviews were conducted among selected interviewees using semi-structured, open-ended questions addressing their experiences of online learning and an eclectic approach was followed to rely on any information that came about and accommodated

all responses provided without judging them. Most researchers maintain that interviews are one of the appropriate tools to enable the researcher to arrive at an in-depth understanding of events or experiences (Denscombe, 2014; Yin, 2009; Henning, 2004). In this case, study, interviews and informal observations were used to collect data in order to arrive at an in-depth understanding of events or experiences. Factors such as frustration and language barrier were noted and recorded next to the interviewee's text in order to understand the degree to which they affect students' online learning experiences. This kind of context helped to understand the underlying factors that influence the experiences participants were going through.

However, the limitations of a case study were taken into account, such as, findings which would commonly not be generalisable or necessarily transferable to other or similar situations. This awareness was consistent to the limitations of a case study noted by other researchers (Denscombe, 2014:61; Yin, 2009:15). They argue that the sample used in case studies would not be representative of the population being studied as case studies use smaller samples and select them purposively. For that reason, to circumvent those limitations when investigating online learning experiences of rural students in UNISA Limpopo region, this study used a multi-case, descriptive design to provide for the development of a rich theoretical framework that could make the findings of the study to be generalised to other cases (Yin, 2009:54). The other limitation noted was the temptation of being biased and allowing ones' philosophy of life to influence the findings. In order to prevent any bias, an experienced co-coder was used to assist with the coding process by discussing the codes and themes arrived at and finally reaching consensus.

Case studies using face-to-face interviews may also pose a challenge in terms of logistical issues such as monetary cost and time, particularly in the UNISA setup that is a distance learning institution. Emails were used to contact prospective participants for participating in the study and during data collection; some students were visited at UNISA centres nearer to their residences while others chose to meet me at the UNISA office where I work which was more convenient for them. The centres were used because of their ambience.

4.4.2 Population of the study

According to Yin (2009: 91) before the researcher decides on the sample to be included in the study, the researcher has to define a set of operational criteria whereby candidates will be deemed

qualified or not qualified to serve as cases. The study comprised eleven participants who were initially expected to be twelve. The last participant could not be included, as the study had reached saturation point. The data collected was repetitive and there was no need to continue collecting data. The population for the study comprised 2015 and 2016 college of Law students who resided in the rural areas of Limpopo Province. They are participants who were and are enrolled for online modules, which use an *e-tutoring* facility. Two research sites in Giyani and Lephalale were selected for the study and with the absence of the Lephalale students' responses; Sekhukhuni was selected to replace Lephalale. The areas were selected because of their rural nature where the possibilities of accessing computers and the Internet presumed to be slim. The two groups were selected for cross-analysis purposes to compare the experiences of online learning usage of facilities. This was done with a plausible assumption that 2015 participants had a longer exposure to online learning than the 2016 participants and therefore their experiences would potentially provide a more enriched understanding of the complexities of online learning among UNISA rural students.

4.4.3 Sample management

Denscombe (2014: 58) states that a sample in a case study is not randomly selected: it is selected based on known attributes and information rich participants. The cases are selected because of their knowledge of the phenomenon being investigated. The purpose is to ensure that information-rich samples are identified to provide some rich data on the problem being studied.

Non-probability purposive sampling was therefore used for this study. This sampling was selected because it helped the researcher understand the problem and the research problem by selecting for inclusion the participants who have knowledge of the phenomenon studied (Creswell, 2014, 188).

4.4.3.1 Inclusion criteria

The criteria used for selecting the participants were based on the online learning module they were enrolled for, which is CRW1501 (Criminal Law 1). The module was selected because of the presence of some e-tutors who were also face-to-face tutors in the Limpopo region (North-Eastern Region) and could help to clarify issues whenever was necessary since they were within reach. The rural origination was also used as other selection criteria as the study's focus was on rural

students. The sites selected reflected rurality and the student lists acquired from UNISA made it easier to find students in those areas. The selection did not discriminate against age, race, and gender, but used the criteria of rural origination, being Law online learning students in the 2015 and 2016 years identified and also being UNISA students. All ages above eighteen years were accommodated.

4.4.3.2 Bias

The study took into account the possibility to be biased when selecting the participants and analysing and interpreting data. In order to prevent this possibility of bias, I applied for permission to use students and was finally granted student lists from the College of Law and sent emails to all participants at the sites initially selected for this study (see Addendum C). Participants who finally responded to the emails and consented to participate in the study were the ones who eventually comprised the sample. Furthermore, the researcher ensured that some of the preconceived assumption that students are digitally illiterate and they that they have negative attitude towards online learning were not infused in the analysis of data. All participants in the study refuted these assumptions, and this is well reported in Chapter 5 and 6. As a researcher, I ensured that my pre-conceptions and some of those that emerged in literature sources that I read did not influence me.

4.5 DATA COLLECTION METHODS

Data collection methods are selected based on the relevant research design for the study (Denscombe, 2014; Yin, 2009). They go on to say that data collection methods should be chosen thoughtfully and meticulously so that the study being conducted is able to achieve appropriately what it purports to achieve. Based on the research design decided upon, this study used individual interviews with which participant behaviours and attitudes were observed as the interviews were conducted on a face-to-face format. The observation protocol was not used as, in accordance with Yin (2009:109), observation can also take place “less formally throughout the field visit, including those occasions during which other evidence, such as that from interviews, is being collected”.

4.5.1 The interview

The interview is one of the most important sources of case study information (Henning, 2004; Yin, 2009; Johnson et al., 2012; Denscombe, 2014). Henning (2004) further asserts that the aim of the interview is to bring to our attention what individuals think, feel and do and what they have to say

about it in an interview. Johnson and Christensen (2012:202) concur that “qualitative interviewing allows a researcher to enter into the inner world of another person and to gain an understanding of that person’s perspective”. It was for this reason that the study applied the interview method of data collection in order to have an in-depth understanding of how the participants in the study experienced online learning. However, the strengths and limitations of interviews were taken into consideration to ensure that data collected meets the criteria of trustworthiness.

The interview type for this study was a focussed, semi-structured interview with open-ended questions in which the participants were interviewed once-off for a short period of forty-five minutes (45 minutes). The interviews were conducted in an individual face-to-face format by the researcher as the principal facilitator and these were conducted at a UNISA office nearer to where participants lived whereas others were conducted at the venues nearer to the participants’ homes, such as municipal libraries and tutorial centres. This was prompted by the participants’ preferences as they are distance learners. The interviews were digitally recorded with the researcher simultaneously taking down notes to ensure that in case the digital recorder mal-functioned, some information would still be safely available. Participants agreed to the interviews being digitally recorded.

The interviews were conversational in nature to allow the participants to be relaxed and reflective throughout the interview.

Likewise, an interview protocol was developed with questions framed from literature sources in Chapter 2, which provided the theoretical perspectives in the study. Its purpose was to guide the interview process and ensure conformity as data collection proceeded (see Addendum F). This implied that all participants were asked the same questions with similar follow-up questions when it was necessary.

For example, Henning (2004:73) postulates that the strength of the interview is its ability to enable the researcher to collect as much information that emerges as the interview progresses such as “gestures, facial expressions, tone of voice, change in tempo of speech and general body language”. In instances where the researcher senses some exaggeration from the interviewees, the interview method provides an opportunity to probe and corroborate the information provided (Yin, 2009: 109; Denscombe, 2014). Denscombe (2014: 200) further provides a list of checks to help the researcher notice if the interviewee is exaggerating such as, checking data with other sources; checking the transcript with the informant; and checking the plausibility of the data and

looking at the themes. In this study, the trustworthiness of the data was verified through corroboration of other interviewees' data and also checking the transcript with the informant as advised by Yin (2009) that, "… a reasonable approach is to corroborate interview data with information from other sources". Staff that deal with some of the online learning support activities in the region were also contacted for verification purposes. The feedback received from the interviewees and ICT staff was not disputed as exaggerations or misrepresentations.

In terms of limitations, Henning (2004), Yin (2009) and Denscombe (2014) mentioned a variety of limitations such as; the interviewees being generally keen to manage the impression that is being made of them, i.e. wanting to impress and some of them simply distorting the truth and exaggerating. When interviewees made some exaggerations on some of the pertinent issues, this was managed by not engaging them on the issue but by candidly making follow-ups using a related question that would eventually provide a different picture from the one originally presented. In this way, checks and balances were applied to ensure that the data provided is trustworthy by way of probing and corroborating.

Observation was less formalised in the interviews as field trips were not part of the research design. However, because the interviews were conducted in a face-to-face individual format, it was pertinent to observe certain behaviours and attitudes as the interview progressed, and these were written down as commentary next to the text of the interviewee. This kind of observation was justified by Yin's (2009) assertion that observation can also be conducted "less formally throughout the field visit, including those occasions during which other evidence, such as that from interviews, is being collected".

4.6 DATA ANALYSIS PROCESS

The data analysis process for this study used the eight steps of Tesch's inductive, descriptive open coding technique.

4.6.1 Techniques for analysing data

The analysis process was initially planned to be conducted by using computer aided qualitative data analysis software named ATLAS. However, due to the training challenges, time constrains and skills limitations it was decided to switch over to manual coding where a co-coder was enlisted to assist with the coding process. I heeded Saldana's (2009:22) advice that pencil and paper-

coding process would provide me with more control and ownership of the work. The other advantage for using manual coding was that the co-coder was an expert in the field. Amongst the many coding techniques available (see Theron, 2015), Tesch's eight steps of inductive, descriptive open coding was chosen (see in Creswell, 2014; Theron, 2015). It was chosen because of its detailed nature and simple way to use because it starts with the generation of topics from the text, which helps the researcher to progress easily into coding and theming.

Additionally, the analysis process, as according to Tesch's eight steps of coding, was applied by first reading through the text which was transcribed from the recorded interviews. As reading of the text continued, I also reverted to the audio recordings to confirm some observations detected such as language expression, behavioural incidences, intonation, and check the accuracy of the text. Behaviours such as self-confidence and frustration were identified and captured for further use in the analysis and interpretation phase. The next step was to write down topics that emerged from the content and these topics later aligned to the text to see their relationship to the content. During this period, a pattern was already emerging regarding the common experiences that participants were reporting on. The topics were later condensed into codes and these codes were merged into themes that provided meaning to the data collected. A meeting was later held with the co-coder to discuss the similarities and differences in the coding process in order to reach consensus. The results of this meeting necessitated re-coding and the merging of some themes such as theme one (1): *The dominant stories related to registered students' experiences.* The themes that emerged from this coding process were seven and had sub-themes that are all presented and discussed in Chapter 5. In addition, a final coding report to show the themes and their sub-themes was compiled (see Addendum D).

Because of the nature of this study, which sought to find out about the rural students' e-learning experiences at their different locations, students who enrolled for 2015 and 2016 academic year at UNISA, the analysis process embodied a cross-case analysis in order to deepen some understanding and explanation of the similarities and differences found in the phenomenon investigated. This approach also had the potential to enhance transferability of the findings to other contexts, although it is hard in a case study to achieve such a goal (Yin, 2009; Denscombe, 2014;

Miles et al., 2014:101). Application of these data analysis processes is evidenced in Chapter 5 where findings are presented and discussed.

4.7 DATA QUALITY MEASURES

The most common concern emanating from any research study is about the trustworthiness of evidence provided (Lincoln & Guba, 1985; Yin, 2009; Huberman & Miles, 2012; Denscombe, 2014). The challenge for qualitative research is that findings are not always easily replicated in the same way that a researcher might repeat an experiment (Denscombe, 2014). Moreover, the setting in which it is conducted and analysed always changes with the circumstances. It experiences charges by quantitative researchers as being undisciplined and sloppy (Lincoln & Guba, 1985:289). It becomes exposed to criticism by researchers who espouse the criteria of objectivity, generalisability, validity and reliability in their studies. The involvement of the researcher in the research practice further limits the trustworthiness of the findings. However, taking into consideration the need for the research findings to be trustworthy and of a scientific nature, qualitative research embodies the principles of credibility, transferability, dependability and confirmability that are further elaborated upon below.

4.7.1 Credibility

The essence of credibility in research is the extent to which a researcher can demonstrate the accuracy of the data collected (Denscombe, 2014). The first step towards the attainment of credibility was on sample selection. The study used purposive sampling to ensure that participants who were in a position to provide information-rich data comprised the sample. Equally, the sample was obtained through the UNISA Registrar's office after permission was granted by the College of Law from whom the participants' experiences would be studied (see Addendum C).

The study used individual interviews to collect data and the audio recordings were transcribed into text and shared with the participants to check if their responses were accurately captured. and where necessary, to make corrections or additions to issues that may have been omitted. Sharing this information with participants enhanced the trust that was established between the researcher and the participants. This practice was in line with Lincoln and Guba's (1985) assertion that to confirm credibility in a qualitative study, the researcher should first seek confirmation from the participant regarding the accuracy of the data collected. The coding process used Tesch's open

coding method (see in Creswell, 2014 & Theron, 2015), which is among some of the other coding methods available in research, and an experienced co-coder was enlisted to assist and guide the coding process (see Addendum E). The findings concluded upon were also triangulated through literature sources and verifications with the ICT staff and replication of data from some interviewed participants. This step was in accordance with Shenton's (2004:66) assertion that "triangulation may involve the use of a wide range of informants and, viewpoints and experiences can be verified against others". Lincoln and Guba (1985) are of the same opinion that in order to conduct a good research with findings that would be defensible, the use of a 'devil's advocate' and supervisor to verify if coding was conducted robustly would be appropriate. A co-coder was used in order to enhance the trustworthiness of this study.

4.7.2 Transferability

In case study designs the transfer of findings to general populations is limited because small samples are used. Hence "it is impossible to demonstrate that the findings and conclusions are applicable to other situations and populations" (Denscombe, 2014; Yin, 2009; Shenton; 2004:69; Lincoln & Guba, 1985). However, a multi-case study conducted provided opportunities for transferability into settings that are within the same group such as the rural nature of the environments where participants lived and experiences in those areas. Both 2015 and 2016 participants' rural environments displayed similar infrastructural limitations and participants' views reflected the same concerns. In this case, there was a strong transferability of findings to a similar rural setting in UNISA Limpopo and not to the wider population, although the findings could be used as a benchmark.

4.7.3 Dependability

According to Lincoln & Guba (1985:316) and several other researchers, as there can be no validity without reliability, there also cannot be credibility without dependability. This criterion was applied by following the credibility principles outlined in section 4.5.1.1 above. The sample was selected from a 'bona fide' group of students who experienced the phenomenon being studied and originated from the designated environment chosen (see Addendum C). The challenge with a qualitative study is always that the researcher becomes a part of the research as principal researcher, usually in a face-to-face environment. There is a danger that the researcher might have

personal prejudices regarding the phenomenon and as a result be biased in the process of data collection and analysis and in order to circumvent this, an interview protocol was developed to guide the interview process and at the point of analysis, a professional co-coder was enlisted to participate in the coding process to ensure accuracy and robustness. Dependability, as in reliability, requires the researcher to detail all the processes followed to obtain the data and analyse it (Lincoln & Guba; 1985; Huberman & Miles, 2002; Henning, 2004; Yin, 2009; Johnson et al., 2012; Denscombe, 2014). And to achieve this, Tesch's eight steps of inductive, descriptive open coding to analyse data and arrive at the findings was used (See Addendum D).

4.7.4 Confirmability

Confirmability is related to objectivity. Shenton (2004:72) argues that the concept of confirmability is the qualitative investigator's concern to objectivity. The data collection and analysis methods in qualitative research raise questions about the objectivity of the findings. To offset this challenge, a detailed methodological description was provided to enable the reader to determine how far the accuracy of the data may be accepted (Shenton, 2004). This detailed methodological description provided an 'audit trail' to help any researcher see what steps were followed to arrive at the findings. In this study, Tesch's 8 steps of inductive, descriptive open coding process to arrive at the findings were applied and its application will be discussed in the analysis section below. At the reporting stage, the participants' voice was made to be heard by way of 'in vivo' or verbatim reporting and this is reflected in Chapter 5 (Denscombe, 2014). Seeking participant feedback is another technique to confirm the accuracy of the data collected, although some participants may still continue to provide untruthful information (Miles et al., 2014). This study attained this challenge by cross-checking data provided with other participants' data and also using probes and alternative questions during the interviews to verify the truthfulness of the data provided by the participant. The steps followed ensured that as far as possible, the work's findings are the result of the experiences and ideas of the participants, and not the characteristics and preferences of the researcher (Shenton, 2004).

4.8 ETHICAL CONSIDERATIONS

This study complied with ethical procedures and principles as embodied in the UNISA and University of Stellenbosch ethics guidelines (University of Stellenbosch, 2013; UNISA, 2013).

These guidelines and principles assisted the researcher to ensure that research is conducted honestly, with accountability, professional courtesy, fairness and good stewardship. This is so, "because it is typical for people to differ about what does and what does not constitute ethical behaviour" (Johnson & Christensen, 2012:99).

In addition, permission to conduct research was obtained from the University of Stellenbosch and UNISA concurrently and ethical clearance certificates granted (see Addendum A & B). UNISA also requires that a researcher who is conducting research-using UNISA students apply and be granted permission before the start of data collection and the certificate to use UNISA students was granted (see Addendum C). Participants identified were briefed using a briefing letter prior the interviews about the aims and objectives of the study and how it would unfold (see Addendum G). Their freedom to respond or not respond to certain questions during the interview was guaranteed and benefits or lack thereof were clarified with participants before the signing of consent forms at the commencement of data collection (see Addendum H).

4.9 CONCLUSION.

The objective of this chapter was to outline the procedures that were followed in the study to investigate the research question. The theoretical framework that included the research context was presented to enable the reader to conceptualise the frame of the study. In addition, the descriptive case study research design was used to inform the data collection techniques that were employed to assist the researcher to obtain data and analyse it consistently with the principles of trustworthiness so that the findings are acceptable to other researchers. Chapter 5 will present and discuss the findings, conclusions and implications with a view to seeing the extent that they assisted to answer the research question which is: *How do rural students in the Limpopo region experience the online learning support provided by UNISA as an Open and Distance Learning Institution.*

CHAPTER 5

FINDINGS AND DISCUSSION

5.1 INTRODUCTION

Chapter 4 detailed the process that was followed to collect data and analyse it. Moreover, the interpretive research paradigm adopted assisted in providing a deeper understanding of the nature of the problem in this study. As indicated in Chapter 1, the research problem in this study was concerning the inadequate usage of online learning platforms by UNISA's rural students. In order to gain a better understanding of these rural students' online learning experiences, data collection and analysis process that followed aimed at answering the research question of the study: *How do rural students in Limpopo Region experience the online learning support provided by UNISA as an Open and Distance Learning Institution?*

The data collected and analysed resulted in the emergence of the following themes that will be presented with their sub-themes:

- Dominant stories related to students' experiences of Internet access;
- Factors influencing access to computer use, Internet and online learning facilities;
- Knowledge of students related to the use of computers, Internet and online learning facilities;
- Views of students related to online learning and Internet facilities;
- Existing computer training courses or workshops at UNISA for students;
- Difficulties experienced by students for Internet and online learning facilities;
- Suggestions related to what UNISA could do to assist students.

The study earmarked twelve participants for its sample, but due to saturation of data, the data collection process culminated with the sample of eleven participants. This chapter will firstly present the participants' demographic profiles; this will include their socio-economic status and accessible technological devices which are used by participants.

5.2 OVERVIEW OF DATA COLLECTED

5.2.1 The demographic profile of participants

Following is a demographic presentation of participants' profiles to provide a contextual understanding of their online learning environment. Yin (2009:18) argues that context is very essential in case studies because such context is highly pertinent to the phenomenon of study. Henning (2005:41) concurs that the "interest for case studies is in process rather than outcomes, in context rather than a specific variable, in discovery rather than confirmation." Hence, this chapter will start with the presentation of the demographic profile of the participants who were involved in the study.

All the participants in the study were from rural areas; almost 50% of them are from the deep rural areas that were 100km away from the UNISA offices and nearby towns.

Table 5.2.1.1: Distance between UNISA campuses and participants' residences

Participant code	Distance between UNISA Regional offices and your area of residence	The distance between UNISA Regional office and your place of residence If staying at new residence.
15G1	60km	N/A
15G2	60km	N/A
15G3	140km	7km
16G1	15km	N/A
16G2	120km	N/A
15S1	20km	N/A
15S2	200km	10km

15S3	35km	N/A (sometimes lives with a relative in town when there is more study work to be done).
16S1	185km	N/A
16S2	185km	N/A
16S3	200km	20km

The distance between UNISA campuses and participants' residences forced some of them to relocate to temporary residences nearer to towns and UNISA offices as reflected in Table 5.2.1.1 above.

The participants differed in terms of age, gender, employment status, family size and responsibilities. The biographic categorisation was however, not intended to differentiate but to contextualise understanding of the findings as pronounced by Yin (2009) and Henning (2005). The following table presents the socio-economic profile of participants as collected.

Table 5.2.1.2: Socio-economic profile of participants

Partici-pant code	**Gender**	**Age**	**Employed**	**Unemploy-ed**	**Household size**	**Responsibility at home**	
						Parent	Child
15G1	M	39	X		5	x	
15G2	F	22		X	6		X
15G3	F	20		X	5		X
16G1	M	23		X	4		X
16G2	M	38	X		8	x	
15S1	M	20		X	6		X
15S2	M	29	X		5	x	
15S3	M	26		X	7		X

16S1	M	25	X		6		X
16S2	F	22		X	7		X
16S3	M	32	X		3	x	

Table 5.2.1.2 above presents the socio-economic status of participants to shed some light on how their circumstances contributed to their easy or difficult access to technological devices and the Internet. Almost 95% of participants are from large family households of three members and above and 54.5% of them are dependants in their families. It appears that family household size does not have a bearing on the acquisition of devices as all participants owned a cell phone and in particular, above 50% of them owned, and used a laptop or tablet as reflected in Table 5.2.1.3 below,

Table 5.2.1.3: Ownership of devices vs family size

		Family sizes (household)					
Category in family	Ownership of Devices	**3**	**4**	**5**	**6**	**7**	**8**
Children (Dependants)		-	-	L	L C C	L T	-
Parents (self-funding/ working)		T	C	L C	-	-	L
Total		1	1	3	3	2	1
Total percentage		9.1	9.1	27.3	36.4	18.1	9.1

Key: L = Laptop; T = Tablet; C = Cell phone; - = none in the category.

The ownership of technological devices by participants was also observed and it was found that various technological devices such as cell phone, laptops, computers and tablets were used for learning purposes. The choice and use of these devices mostly depended on their availability to the participants. Table 5.2.1.4 below presents the technological devices commonly used by the participants in this study.

Table 5.2.1.4: Technological devices commonly used by participants

Participant code	Cell phone	Tablet	Computer	Laptop
15G1	X		X(W)	X
15G2	X		X(U)	X
15G3	X		X(U)	X
16G1	X		X(H)	
16G2	X		X(W)	X
15S1	X		X(U)+(Com)	
15S2	X		X(U)	
15S3				X
16S1	X			
16S2		X	X (I/Café)	
16S3		X	X(U)+I/Café	
Total %	72.7%	18.2	81.8%	45.5%

Key: W = Work, U = UNISA, H = Home, Com = Community centre.

The Table 5.2.1.4 above shows that students commonly use cell phones to access the Internet for online learning, although most of them said that they do not have enough money to purchase data. Some of them also pointed out the difficulty of having to use cell phones with small screens for online learning, since they do not have the same facilities as smartphones to access Internet for online learning. Exemplifying this, participant 15G3 said that:

"I had a challenge because I used my cell phone because my phone could not show in WordPad. It needed a smartphone or a computer"

Participant 16S1 also stated the challenge regarding the use of cell phones: "*…it depends on the kind of a device you are using. So, when you use a small phone it is a problem, especially when you are typing".* The other participant succinctly captured the challenge as follows*: "Ja…, some of us we do not have the correct devices to use to access online" (15S2)*.

Similarly, participant 16S1 concurred that there is a challenge in using cell phones when pointed out "*…it depends on the kind of a device you are use. So, when you use a small phone it is a*

problem, especially when you type". The other participant clearly captured the challenge when remarking that*: "Ja…, some of us we do not have the correct devices to use to access online" (15S2)*.

Concisely, most participants reflected positive attitudes towards the use of cell phones for online learning, as long as they functioned like smartphones and computers/laptops are. It was also clear that about 70% of the participants used cell phones predominantly and sometimes UNISA computers whenever they needed to access the Internet and work online. Likewise, only about 30% (see Table 5.2.1.5) of participants accessed computers and the Internet using UNISA facilities. In addition, the points of use by the 2015 and 2016 participants were compared as reflected in the Table 5.2.1.5 below.

Table 5.2.1.5: Internet and computer access points by participants per registration cycle

Year of registration	Own devices/work i.e. (cell phone, Tablets and computers)	University technologies
2015	27.3%	27.3%
2016	45.4%	0%
Total:	**72.7%**	**27.3%**

This Table 5.2.1.5 indicates that about 70 % of participants were prepared for online learning, as they were able to learn away from the university campuses using their own or work devices and some using an Internet café.

5.2.2 THEMATIC PRESENTATION OF FINDINGS

5.2.2.1 Theme 1: Dominant stories related to participants' experiences

This theme emanates from the responses provided by participants regarding their general experiences of Internet and online learning facilities usage. The pertinence of this theme is justified by the overlapping responses of the participants across all five-topic questions in the interview guide. The following sub-themes were subsequently generated : A description of the existing online learning facilities utilised; An outline of different Internet and online learning utilisation rates and duration; An outline of different Internet and online learning utilisation reasons; problems versus lack of problems relating to utilisation of Internet and online learning facilities; participants' description of their own devices that assist in online learning and Internet access and experiences

relating to the use of computers, Internet and online learning facilities. Participants showed some level of experience in Internet and online learning usage, which is portrayed in the six sub-themes of this theme, discussed hereunder. This is also supported by literature sources with direct excerpts from participants.

5.2.2.1.1 Sub-theme 1.1: Existing Internet and online learning facilities utilised.

The participants were asked the question: *Describe the things you enjoy doing with technology and the Web each week.* This question contained follow-up questions such as 'C*an you describe the devices that you use? How much time on average do you spend each week online? Can you tell me about the learning facility that you use?'*

When asked to provide information regarding things they enjoyed doing with technology and the Web each week, they listed activities such as the use of *WhatsApp* and *Facebook* and *twitter* for social networking; *myUnisa*, *mylife* email and *e-tutoring* for their UNISA studies; reading news online and searching for information relating to their studies online. Some participants also mentioned that they use it to listen to music and play games online.

When looking at these answers, there was strong evidence that almost all the participants in the study are computer literate. They are also not computer shy as some of them use *Facebook* for social networking and learning. A good example is from participant 16G3 who emphasised that *"Facebook is also one of the platforms we use for learning. We also discuss with friends some school work things".*

It was also found that the participants were aware of UNISA online learning platforms such as *myUNISA*, *mylife* and *e-tutoring* services and claimed that they use them. Table 5.2.1.6 is an illustration of the use of Internet and online learning facilities by participants.

Table 5.2.1.6: Internet and online learning facilities utilised

Participant code	**Facebook**	**WhatsApp**	***myUNISA***	***Mylife* email**	***E-tutoring***	**Comments on *e-tutoring***

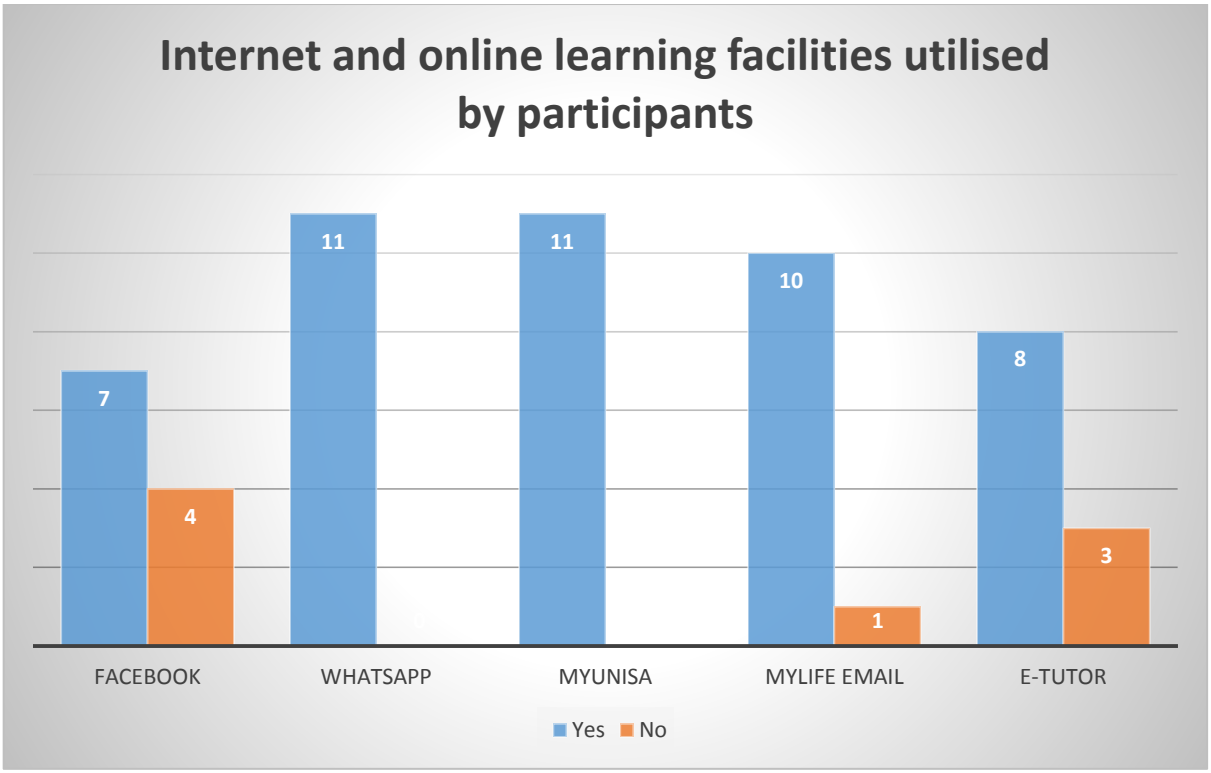
15G1	√	√	√	√	Xx	Does not know *e-tutoring*.
15G2	√	√	√	√	√	Uses *e-tutoring* & enrolled for signature modules
15G3	√	√	√	√	Xx	Does not know it. Ignored the sms notification
16G2	√	√	√	√	√	Knows about it and uses it.
16G3	√	√	√	√	√	Uses *e-tutoring* & enrolled for signature module
15S1	X	√	√	√	√	Knows about it. Does not participate frequently
15S2	√	√	√	√	√	Knows about it. Never participated

15S3	X	√	√	X	√	Aware of *e-tutoring*. Did not use it
16S1	√	√	√	√	√	Knows about it. Does not participate
16S2	X	√	√	√	√	Uses *e-tutoring* & enrolled for signature modules
16S3	X	√	√	√	Xx	Does not know *e-tutoring*. Ignored sms

Key: √ **= uses. X= does not use**. **Xx**= Unaware (*e-tutoring*)

The Figure 5.2.1.1 below presents the total number of participants and the learning facilities they used.

Fig. 5.2.1.1: Online learning facilities utilised by participants



For all 2015 and 2016 participants in the study it was found that they use UNISA online facilities such as *myUNISA* and *mylife* email. According to Sutton (2000), online learning can also take place vicariously by way of the student learning from behind the scene. Likewise, regarding *e-tutoring* the following picture emerged from the analysis in terms of those who used it and those who did not use it but were aware that they have an e-tutor.

Fig. 5.2.1.2: *E-tutoring* usage

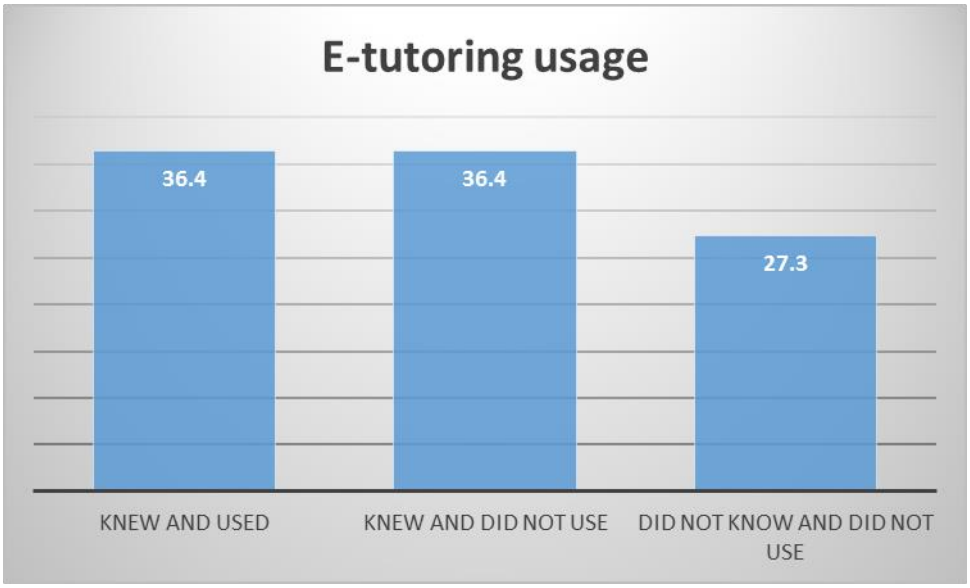


Figure 5.2.1.2 above indicates that above 60% (63.7) of the participants were not using *e-tutoring* facility. Likewise, it shows the lack of *e-tutoring* usage or inadequate usage among the 2015 participants as reflected in Table 5.2.1.7 below:

Table 5.2.1.7: *E-tutoring* usage according to registration periods

Year of study	**Aware but not using**	**Unaware of *e-tutoring***	**Aware and using e-tutoring**	**Total %**
2015	27.3% (3)	18.2% (2)	9.0 (1)	54.5% (6)
2016	18.2 (2)	0% (0)	27.3% (3)	45.5 (5)

The table above indicates that the 2016 participants had the potential to use *e-tutoring* more than the 2015 participants did, as they were all aware of the *e-tutoring* facility more than the 2015 participants were. The support programmes made available in 2016 could be what led to their awareness. Some of the supports provided were College organised orientation programmes by various Colleges at various Regional offices and the regionally based training programmes for signature modules registered students.

5.2.2.1.2 Sub-theme 1.2: Internet and online learning utilisation reasons

In this study, participants had indicated the various reasons for accessing certain Internet platforms and the UNISA online learning facilities. The study analysed the reasons that made participants to use such facilities in order to later try to relate them to the research question and the following was found:

Table 5.2.1.8: Participants' Internet and online learning facilities utilisation reasons

Participant code	Internet/online learning facility/ies	Reasons for usage
15G1	*Facebook, WhatsApp*	*I enjoy checking comments of the students and I get these comments on Facebook and WhatsApp.*
16G2	*myUNISA* and *mylife* email	*…the one we use on* myUnisa *to access the tutorial guides and question papers. They refer you to various books.*
15S2	*E-tutoring* learning facility, *myUNISA*, *mylife* email, *Facebook, Twitter, WhatsApp.*	*I normally search for information, ah… information related to my studies.* (e-tutor) *I just go onto the facility and check what the tutor has posted, check the new updates on the facility. I have never communicated with other students. I find the updates very helpful*.
16S3	*myUNISA* and *mylife* email	*Ah... it is a facility where you can get modules and you can download your modules. I can get my modules online.*
15S3	*myUNISA*, *Youtube*	*Firstly, all assignments I submit online. I do*

		research for some information. You find that you are required to use articles and so you have to search them online.
15S1	*myUNISA*, *e-tutoring* learning facility, *Google*, *mylife* email.	*Jaa… I mostly use them when I want to submit some assignments or when I want to check some announcements like, for CRW I501. I would also look for e-tutor announcements.*

The table above is a brief illustration of the reasons participants used the Internet and the online learning facilities that are available in UNISA. It shows clearly that the common Internet or learning facilities used are those that UNISA has provided and except for *e-tutoring*, both 2015 and 2016 participants generally use all facilities for learning purposes as reflected in the sample Table 5.2.1.8 above.

5.2.2.1.3 Sub-theme 1.3: Internet and online learning utilisation frequency and duration

Interlinked with these reasons are the frequency usage rates that were found amongst the participants. It was found that on average the participants used the Internet and other learning facilities almost on a weekly basis. Participant 16 G 2 explained this that:

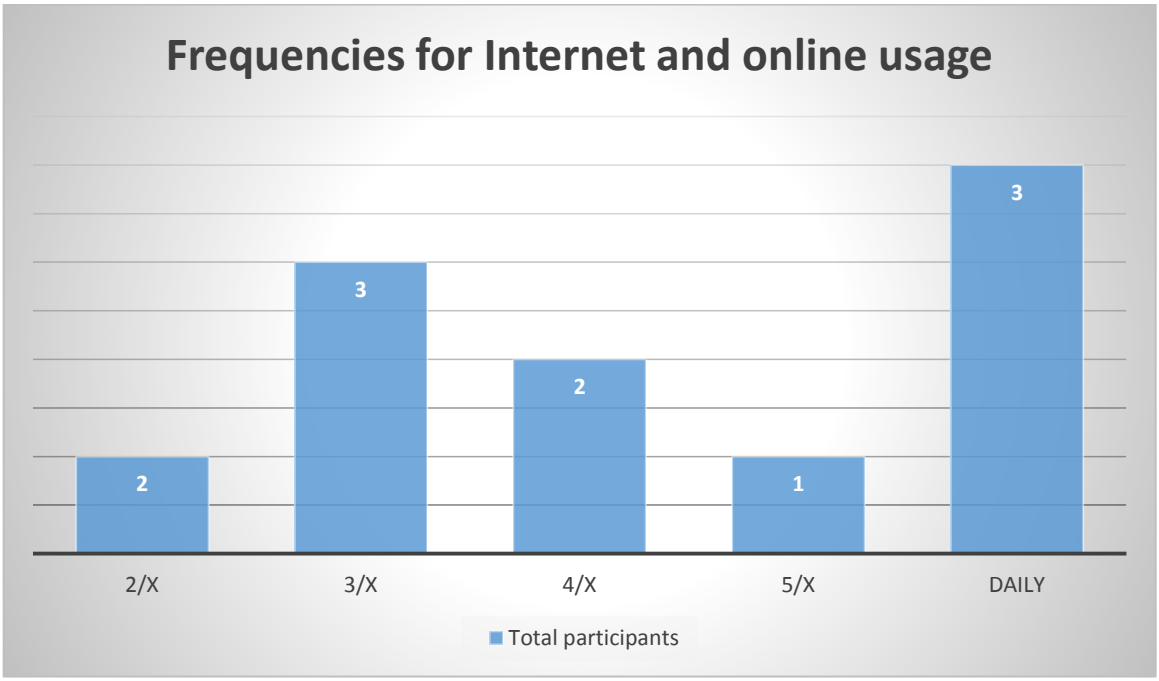
"Well… I try to make sure that I log into myUNISA at least four times a week. Averagely, my cell phone is forever on the Internet. I have at least 3hours for school work" (16G2).

The times spent varied from one participant to the other but on average, they spent 3-4 hours per week online. Participant 15S3 indicated that he/she:

"*Can spend 3-4 hours a day, depending on things that are interesting".*

The following graphical presentation explains the frequency of access to the Internet and online learning facilities by the participants (see Figure 5.2.1.3):

Fig. 5.2.1.3: Frequency of access to Internet and online learning facilities



What is clear from the Figure 5.2.1.3 above is that participants did not shy away from accessing the Internet and that about 81.8% (9 participants) of them accessed it from three times a week to daily, spending between 2-4 hours a day, while 18.2%(2 participants) accessed it the least(twice per week). For that reason, the frequency and duration depended on the participants' needs and the notifications they received from lecturers and e-tutors. Though the standard readiness for Internet usage is 21 hours per week (Burton and Goldsmith, 2002) the frequency of usage by these participants may not be unsatisfactory taking into consideration rural circumstances they live in. Equally, it emerged that above 50% of the 2015 participants spent more time on online learning facilities than the 2016 participants who spent almost 45% time online as reflected in Table 5.2.1.9 below.

Table 5.2.1.9: Frequency of accessing Internet and online learning facilities per registration categories

Participant groups	Duration	2015	2016
16G1,16G3	2/week	0	2
15S1; 15S2;16S3	3/week	2	1
15G3; 16G2	4/week	1	1

15S3	5/week	1	0
15G1;15G2;16S1	Daily	2	1
Total		**54.5%**	**45.5%**

This indicates that if the 2015 participants had known about *e-tutoring* at the start of their classes, they would have spent as much time using that online learning facility as reflected in Table 5.2.1.9 above.

5.2.2.1.4 Sub-theme 1.4: Problems related to utilisation of Internet and online learning facilities

The problems reported by participants amongst other things included: lack of Internet access due to unavailability of data bundles, distance to Internet facilities like UNISA campuses or Internet cafés, lack of Internet or computer skills, lack of suitable devices. In addition, they pointed out that there is an Internet access restriction at community libraries and insufficient number of computers at UNISA when they visit the campus for Internet and computer usage.

In relation to unavailability of data, the problems were reported as follows:

"*… Money can be a big issue because even if you have a smartphone you cannot access the Internet because it's gonna be useless because if you do not have money you cannot buy data "(*15S2). Additionally, another participant reported that *"the only challenge I have is that there will be a time when I don't have money, and I need to access the Internet, it is worrying. I have no money to come to the Library and I can't buy data. It means I am stuck until I have money" (*15S3).

This finding clearly indicates that the participants could have participated on online learning facilities if they have had data bundles or facilities nearby where they can access the Internet. It is also evident that the expensive data in South Africa, as it is clearly pointed out by the Minister of Communications in the South African Parliament in 2017 and the World Bank in 2016, compounded to the problem. Fin24 also reported that South Africa's data prices were "on average 134% more expensive" than the cheapest prices among BRICS members and compared to Kenya and Australia (Merten, 2017).

In relation to distance to UNISA Campuses or Internet Cafés, the problems were reported as follows:

"Because you are from the rural areas, you don't have access to the Internet. You have to come to town to access the Internet because you have no data. There is nowhere you can find an Internet café. A cell phone you can use to access the Internet, but you cannot access it if you do not have data bundles" (15S1).

"My original place is in village X. There is no Internet for me and the network is very poor. I can only use the Internet when I go to Town. It is very far to travel to town. From my village X to Polokwane can be about 170 km single trip" (16S3).

The above comments indicate that the distance to UNISA facilities impeded participants' access to the Internet, particularly those who do not have facilities in their rural areas. This also points out that rural students living far from UNISA facilities have no alternatives to help them to deal with the Internet access challenges (see Table 5.2.1.1).

In relation to lack of Internet or computer skills, the problems were reported as follows:

"The other problem I think is the usage, the operation of computers, especially we from rural areas, we grew up in an environment where we did not have access to computers so, it becomes difficult to use computers because some of us it becomes very difficult, we do not know how to use them" (15S2).

Another participant reported about the computer skills specifically to *e-tutoring* usage that, if you have to log into the facility, "*You have to first register, you have to have an assistant to show you how to register. In UNISA there is no one who can assist you. No… this is the challenge that many students are facing, not knowing what to do and where to go".* Contrary to the problems reported by participants, one participant did not agree with the notion that many people today lack computer skills*: "these days it is very rare to find someone who does not know how to use a computer" (16S1).* The finding in this study was that almost all participants were able to use computers and the Internet as illustrated in Table 5.2.1.4 above which corroborates this notion.

Though the above view by participant 16S1 might be a sweeping statement, it is however assumed that with the technology usage that surrounds our everyday lives today, it is possible to find mostly all young people involved in learning having the skills to use computers, and this is evidenced by

the age range of participants in this sample as illustrated in Table 5.2.1.2. It was also found that their peers at the UNISA campuses or friends assisted more than 60% of participants and relatives at their home villages to learn how to use the Internet computers and some online learning facilities (see Table 5.2.1.10).

In relation to lack of suitable devices, the problems were reported as follows:

"…*but in terms of its use (e-tutoring), it is easy to use. But again it depends on the kind of a device you are using. So, when you use a small phone it is a problem, especially when you are typing" (*16S1). Another participant reported that; "*At first when I registered at UNISA I did not have a smartphone, I had a small phone. So, eh... I had to come here all the time to check my emails or anything and I didn't even have a laptop" (15G2).*

Another participant added that*; "I had a challenge because I used my cell phone, because my phone could not show in WordPad. It needed a smartphone or a computer" (15S1).* So, most of the participants indicated the need to have suitable devices as a factor that would enable users to work online effectively like it was succinctly put forward by participant 15S2 that;

"*I think is the devices. I can say tools. Ja…, some of us we do not have the correct devices to use to access online".*

It was found in this study that participants regarded cell phones as not suitable for online learning activities. This indication could have arisen due to their attitude regarding the size of cell phone screens as compared to that of computers and laptops. It also appeared that smartphones would be suitable as alternative devices because most participants who raised this issue used a smartphone and found it to be better that an ordinary small screen cell phone.

In relation to Internet access limitations at community centres, the problems were reported as follows:

The participants reported that there is unavailability of community centres and community libraries in their areas. The only participant who had access to a community library reported that there are internal rules that restrict the computer users to a limited time through the voucher system. The duration one user is allocated a computer is limited to 20 minutes and he/she reported thus; **'***It is the Library. They give you a voucher to access the Internet for 20 minutes for free" (15S1).* The

problems of standing in a queue to access a computer were also mentioned because there are few computers available in that community library. This problem was also raised in relation to availability of UNISA computers that were reported to be not sufficient for the large number of registered students who visit the campus daily for Internet and computer usage. As a confirmation to this statement, participant 15G3 reported that "*if you find here at school that people are many, you don't have access to get that access because we are many…"*

Almost 90% of participants did not have access to community centres in their villages. It became clear that most communities where students reside do not have community centres or that the community centres where UNISA has some partnerships were not sufficiently marketed for use by students or that these centres are out of reach for students who would like to use them, and this compelled them to travel long distances to UNISA facilities or Internet cafés for access purposes.

5.2.2.1.5 Sub-theme 1.5: Devices owned that assist in online learning and Internet access

Table 5.2.1.4 above illustrated the varied devices used by participants. Moreover, Table 5.2.1.5 provided a picture of preparedness by participants for online learning by identifying the points of access participants had for Internet access. As reflected in these tables, it shows that more than 70% of participants used their own devices supplemented with their workplaces and Internet café devices. Cell phone usage dominated other devices used by participants. Most participants who used cell phones often supplemented it with either a laptop or a computer. More than 25% of those who supplemented cell phones usage with computers found the opportunity to use computers at UNISA campuses.

It is clear as presented in Table 5.2.1.4 that cell phone ownership dominates all other devices and that with the appropriate use, it could help facilitate the success of online learning as pointed out by Viljoen et al. (2006), Makoe (2011; 2012), and Chaka (2012:172) that cell phones are also viable devices for use in online learning using the compatible pedagogy.

5.2.2.1.6 Sub-theme 1.6: Experiences related to the use of computers, Internet and online learning facilities

Online learning exposed students to various experiences that, over and above its use, included the use of computers, cell phones, the Internet and the extent of their confidence when online. Findings regarding the participants' experiences are presented below.

The use of computers

The participants' experiences were varied. Table 5.2.1.4 above shows that above 70% of the participants used computers supplementing them with cell phones or laptops when needed. The finding in this study however indicated that cell phones were predominantly used first before using computers. This is evidenced by the source where participants gained access to the computers as illustrated in Table 5.2.1.10 below which unpacks Table 5.2.1.4 above regarding the different places where they obtained access for computer usage.

Table 5.2.1.10: Different places where participants gained access to computers.

University computers	Work computers	Home computers		Internet Café	Total
45.4%	18.1%	9.1%		9.1%	81.7%

It appears access to computers was difficult for most of the participants as only one participant (9.1%) had a computer at home while others had to travel some distances in order to access a computer.

The available computers at UNISA were also received with mixed feelings because some participants complained about the few computers available as mentioned by participant 15G3 that "*if I don't have data, I have to come here at UNISA and if I don't come a little bit earlier, I will not find space because we are more and the computers are less".* One other participant 15G1 had a laptop instead and he shared it with his son. Therefore, he would only use it when it was available. Otherwise, he would not use it. Taking into consideration the experiences above, it is clear that participants resorted to the use of cell phone instead of computers because of these challenges. It is also clear that more computer space would need to be provided to assist the students who periodically visit the university campus. As a general concern, one participant 15S2 indicated that the use of computers might need a certain level of skill which those who come from rural areas might not have: *"The other problem I think is the usage, the operation of computers, especially we from rural areas, we grew up in an environment where we did not have access to computers so, it becomes difficult to use computers because some of us it becomes very difficult, we do not know how to use them".* It is therefore possible that the first generation people to whom a computer is

not a household name might lack the knowledge of computer usage. However, all participants in this study were able to use computers, the Internet and online learning facilities, albeit with difficulties at the initial stage as indicated by participant 15S1 that "Ah… like for first time to access a computer was a tough game" but he/she was eventually helped by other students and is now able to use these facilities confidently (see Table 5.2.1.11 in sub-them 3.1 below).

The use of cell phones

In the previous section the combined use of a computer with a cell phone and a laptop or tablet was presented. The participants used a cell phone supplemented by either a computer, which is not his/her own, or a laptop or tablet. On the use of cell phone, they accessed the Internet and viewed messages on *mylife* and *myUNISA* as said by participant 16G2 that *"… I log into myUNISA at least four times a week. Averagely, my cell phone is forever on the Internet. I have at least 3hours for school work"*. Another participant 16S1 corroborated the use of a cell phone by indicating that he/she does everything using a smartphone. He/she indicated, **"***I do not use a computer. I use my smartphone. I submit my assignments using the smartphone. All my assignments I am not typing them, I write them and scan them and send them" (16S1).* There was however some scepticism regarding the sole use of a cell phone for all learning activities as stated again by participant 16S1 that **"…** *when you use a small phone it is a problem, especially when you are typing".* Almost all the participants in the study raised this concern.

They indicated that they would not be able to do certain things using a cell phone. To illustrate this point, participant 15S1 indicated that "*I had a challenge because I used my cell phone because my phone could not show in WordPad. It needed a smartphone or a computer".* Participant 15S2 further elaborated on this challenge by saying that "*I think is the devices. I can say tools. Ja…, some of us we do not have the correct devices to use to access online".* This makes it clear that cell phones alone may not be a solution for students who lack the appropriate devices. There was however one participant who only used a cell phone, which was a smartphone, without supplementing it with other devices. His/her computer skills were reported to be very good and this probably justified his being able to use the smartphone only without limitations as evidenced by his/her comment that *"I understand how to use a computer or a phone, in fact everything that has to do with technology. I am very good at those things*" (16S1). Over and above the finding that cell

phones may not be suitable for online learning *per se*, it also appears that focussed training in the use of cell phones for learning might be necessary.

Internet availability

All participants' experiences of Internet access at their places of residence may not be appreciable. Participant 15S2 reported that *"the only thing that bothers me is sometimes you know, this thing, the network coverage. It is sometimes very weak. So, when it is very weak sometimes when you are logged-in it cuts you off – more specifically where I stay".* Other participants mentioned the UNISA website which is sometimes not available. In agreement with this challenge, participant 16S2 reported that *"the UNISA Website is not always available*. *They could try to work with us so that we can access the UNISA Website every time we try to log-in"*. Pointing out another frustrating element for those who would visit the UNISA campuses for Internet and computer access, participant 15G2 added that "… *we come here and you travel the long distance and only to find that there is no network, and they close the office at half-past three and by the time the network returns, it is late, they are closing the office"*.

The costs in relation to buying data bundles emerged as the most difficult hurdle for Internet access. It was therefore clear that availability of cheaper data bundles and increase in Internet broadband would help rural communities to access the Internet. Thus, the Department of Communications' commission on the cost of Internet access (data bundles) may be a breakthrough to the challenge (Merten, 2017), if it manages to negotiate less cost of data bundles with the providers.

Confidence in the use of computers

In several online learning studies the problem of lack of confidence and shyness to work online were reported (See Pitsoane et al.,2015). In this study, all the participants interviewed had no fear of using the Internet. Participant 16G3 reported that "*I am not intimidated when I use the Internet because most of the time I am on Facebook. I don't have any problems when I am online. I have no fears".* Participants mentioned that they used computers and the Internet with ease. They knew how to download documents such as their study material and previous question papers from the Internet; how to submit assignments online and how to conduct some information search online. It emerged that the confidence level of participants could not be a factor for the inadequate usage of online learning facilities, particularly *e-tutoring*.

Learning facilities

Concerning the online learning facilities, participants were positive about *myUNISA* and those who used *e-tutoring* also found it user-friendly and valuable for their studies, although their participation was inadequate. Some of the participants had never used *e-tutoring* (see Fig 5.2.1.2.) as reported by participant 15S3 that "*honestly, I don't know. I never used e-tutoring. Time was not on my side. I was working. This year I am willing to use it".* This participant used *myUNISA* and was not happy with the manner in which other students used it as they were using it as a platform for *complaining rather than learning.* There were also those students who were registered for online modules (signature modules) and the knowledge acquired from this module provided them with the skills to access *e-tutoring* and *myUNISA*.

The participants' regular use of computers and the Internet is a clear indication that they are ready and comfortable to use computers (see Table 5.2.1.9). The findings indicated that almost all the students were comfortable to use computers and the Internet. All the participants could type, surf the Internet for research purposes, check their assignment marks online and almost 80% of them could submit assignments electronically and also log onto the *myUNISA* discussion forum. They found the online learning facilities less intimidating and used all learning facilities available for all learning activities as illustrated below (see Figure 5.2.1.4 in Section 5.2.2.3.1).

5.2.2.2 Theme 2: Factors influencing access to computer use, Internet and online learning facilities

This theme involved the description of locations with possibilities of Internet access; suitability of the devices they used for Internet and computer access; the cost factors if any; lack of enough UNISA computers provided for visiting students and the available community support infrastructures. Six sub-themes emerged from this theme and are presented collectively. The first sub-theme related to the lack of Internet cafés at their areas of residence or the distance between their residences with Internet cafés. One participant mentioned the availability of Internet cafés in his/her area but lamented the monetary cost incurred to use the Internet café. The Internet cafés were generally expensive and some of them far from the participants' homes. There were also no suitably skilled people in these Internet cafés to assist them with accessing the UNISA facilities. Thus, for those participants with limited digital skills, the Internet cafés were not helpful, similarly to the community centres UNISA collaborated with, because participants were not aware of them.

Participants also reported the absence of UNISA staff to provide training for students at their rural areas.

5.2.2.2.1 Sub-theme 2.1: The impact of locations on access to facilities

The findings emanating from this sub-theme are that almost 55% of participants originally come from the deep rural areas of Limpopo Province (see Table 5.2.1.1) and 27% eventually relocated to nearby towns where UNISA could be within their reach. Almost 70% of those participants who remained in their localities had to endure limiting factors such as weak Internet coverage, lack of Internet cafés or Internet cafés with less qualified staff, high cost of data bundles and traveling costs to and from either some points where they could access computers and the Internet, or to nearby UNISA campuses.

100% of participants interviewed reported unawareness of UNISA partnered community centres in their areas of residence. They indicated that there were no such centres in their home areas and they therefore had to endure travelling costs to nearby points where they could access computers and the Internet. Participant 15S2 explained the situation at his/her home as follows:

"I come from X village, in X area. The chances of accessing Internet are very slim. You have to travel to town to access Computers. I moved to Polokwane at a nearby Township for my study and work purposes. The distance I travel to town is +- 6 km" (15S2). This participant used and is still using UNISA computers for online learning in 2016. The other participants who relocated to areas nearer to UNISA campuses such as participants 16S3 reported that; "m*y original place is in X village. There is no Internet for me and the network is very poor. I can only use the Internet when I go to town. It is very far to travel to town. When I came here in Polokwane, the purpose was to study and also find a job here" (see Table 5.2.1.1.)*

It appears most of the rural areas in Limpopo Province are still under developed and lack some facilities which could be used by students for online learning. One participant 15G1 reported thus about his/her area; "… *my area is situated in the middle of the two towns. Access to the Internet is very limited. We do not have facilities such as libraries or Internet cafés to access the Internet. It is very difficult to access the Internet"*. There was however one participants who reported the availability of community libraries which provided access to computers and the Internet on a voucher system. The voucher system is used to manage the duration the user spends on the

computer and the Internet. This participant however still had to visit the UNISA campus for more prolonged access to the computer and the Internet. It emerged that online learning users face many difficulties in rural areas in terms of facilities and travel costs to places where they can access computers and the Internet, and therefore some of them were forced to relocate to nearby towns where UNISA campuses are within reach.

5.2.2.2.1 Sub-theme 2.2: Financial constraints, Internet connection facilities

Money was also a contributory factor for Internet access and computers. In order to access the Internet using their cell phones, tablets, laptops or computers participants were required to buy data bundles. Most of the participants reported lack of money to buy data bundles as reported by participant (15S1) that "… *a cell phone you can use to access the Internet, but you cannot access it if you do not have data bundles. So, money remains a factor that controls access to the Internet".* Travelling to UNISA for Internet access also required money. The distances participants had to travel were long and some needed to take two taxis before they could reach the nearest town or UNISA offices. Participant 15G3 reported that*; "Eeh… we use taxis to go to the place where computers are… I had to relocate to Polokwane for study purposes and I live with my sister*". Another participant also reported the distance factor as follows: "*My original place is in village X. There is no Internet café for me and the network is very poor. I can only use the Internet when I go to Town. It is very far to travel to town. From village x to Polokwane can be about 170 km single trip" (16S3)*. It is therefore clear that distance from UNISA campuses hampers the participants' opportunities to also use UNISA computers as data bundles are costly for them to purchase.

5.2.2.2.3 Sub-theme 2.3: Electronic gadgets that provide easy access to Internet

In this sub-theme the finding was that cell phones as one of the electronic devices were not completely useful for usage on online learning facilities. Some of the material was not readily accessible and readable as most cell phone did not have some particular software. One participant 15S1 indicated that his cell phone did not show in WordPad and it became difficult to open some documents using a cell phone. Participants used a variety of devices such as computers, laptops, cell phones and tablets as illustrated in Table 5.2.1.4.

5.2.2.2.4 Sub-theme 2.4: Lack of community facilities

All participants indicated that there were no community facilities in their home areas, including those that UNISA partnered with or any ordinary community centre with computer and Internet facilities. They had to travel long distances to access computers at UNISA facilities or Internet cafés in town. This experience is evidenced by participant 15S2's comment that: **"***The chances are very slim. You have to travel to town to access computers"*. Another participant 15G3 also added to this evidence by indicating that "*the background where I come from, is like is a rural area. So, we don't have computers. We don't have access to computers*". All participants indicated the lack of community centres in their villages. It emerged that as UNISA has community centres that it collaborated with to provide support for rural students, students were not aware of them, as these centres were not within their reach.

5.2.2.2.5 Sub-theme 2.5: Lack of enough computers at UNISA

Participants complained about the insufficient number of computers for student use in UNISA campuses of Limpopo. Participants situated in the Giyani area complained greatly about this shortage as they relied on UNISA computers for learning and administrative matters. Participant 15G2 eloquently complained by indicating that **"***sometimes there are many people and computers are few to use".* This kind of complaint was also raised by participants who often visited the main UNISA campus in Limpopo*. It appears there is a general need to provide space for more computers for learning purposes at UNISA campuses.* It consequently emerged that lack of sufficient computers in the rural UNISA offices could be a contributory factor for inadequate usage of online learning facilities. This could be contributory, as travelling costs would affect them negatively if they visit the UNISA centre and still fail to access computers for learning.

5.2.2.2.6 Sub-theme 2.6: expensive Internet connection facilities

The Internet cafés available for some participants were found to be far and expensive in relation to travelling as they were situated far from their villages and expensive to use. Those who travelled such as participant 15G3 reported that *"we use taxis to go to the place where computers are. We have to pay for them at the Internet cafés at village X."* Therefore, they are double taxed. Some participants who used them indicated the exorbitant amounts charged as indicated by participant

16S3 that *"at the small town like X nearby the Internet is very expensive. They can charge you close to R50.00 because there is no competition".*

To compound the challenges participants face, there are also challenges of poor quality of staff in those Internet cafés as one participant indicated that staff would not be able to assist you on UNISA issues. It is clear that the assumption that students would use Internet cafés for online learning would be tantamount to the university being satisfied with "re-packaging print-based courses and using technology to deliver it", and thus thinking that the commitment for online learning has been achieved (Makoe,2011:178: CoL,2007). The objectives of online learning would not be achieved, as access would still be a challenge.

5.2.2.3 Theme 3: Participants' knowledge related to the use of computers, Internet and online learning facilities.

Digital literacy plays an important role in the successful usage on computers, the Internet and online learning facilities. According to Angelino and Natvig (2009), it is imperative to familiarise the users with the online learning they will be using prior to the start of the class. Likewise, DeBourgh (1999: 06) notes that "technical support and training for participants in technology-mediated distance education courses is critical to students' satisfaction and programme success". The following sub-themes provide the findings in relation to the experiences of participants regarding their knowledge of computers, Internet and online learning facilities usage.

5.2.2.3.1 Sub-theme 3.1: Existence of knowledge related to use of computers, Internet and online learning facilities

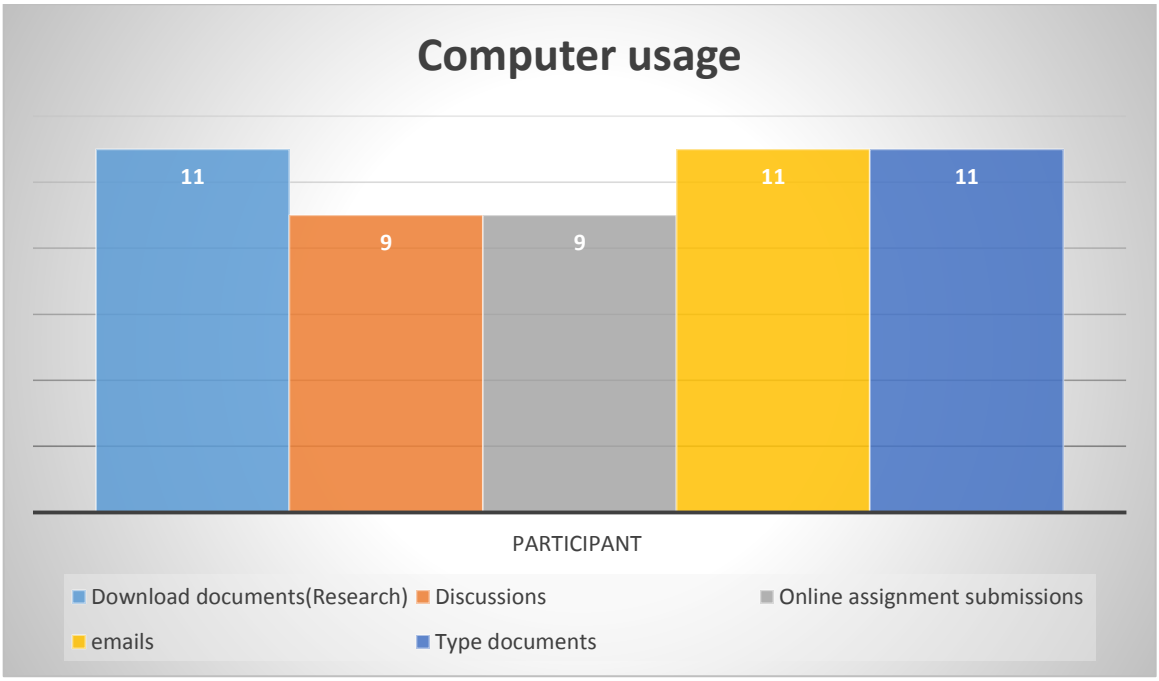
The knowledge of computer and Internet usage are key to a successful online learning, and online learning facilities may also require a certain level of familiarity with the platform for one to navigate them. Following are the key necessary ingredients required for effective online learning.

Knowledge in relation to the use of computers

In a study by Pitsoane et al. (2015:33) e-tutors indicated that their students were not computer literate and that most of their students were not used to a computer setting. This feedback by e-tutors pointed at the capacity of students' usage of computers, the Internet and online learning platforms. In this study, almost all participants were found to be computer literate as they could access the Internet, download documents, submit assignments online, type documents and send

emails. Figure 5.2.1.4 provides an illustration of the participants' existence of knowledge relating to the use computers.

Fig. 5.2.1.4: Participants' existing computer skills



The above illustration (Fig.5.2.1.4) shows that all participants are able to use computers as they could do all basic computer requirements activities. On further analysis of their level of ability on computer usage, the following revelation emerged as illustrated in figure 5.2.1.5:

Fig. 5.2.1.5: Participants' general ability for computer usage (Ability)

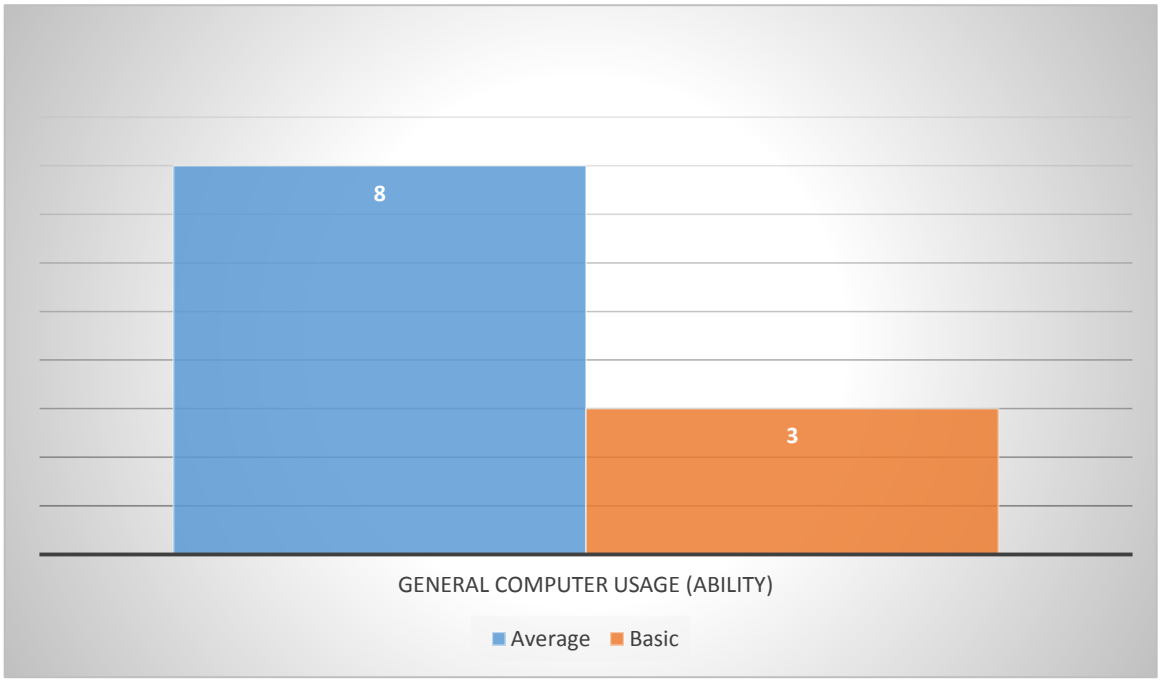


Figure 5.2.1.5 above indicates that almost 70% of the participants' general computer knowledge was average as mentioned by participant 16S2 that "*well… one cannot say I know much, because they are forever improved. I can develop a report at the required time. I have knowledge of using the Internet. I can do research on the net. The list is endless"*. Their knowledge relating to computer usage was presumed to be adequate for online learning as they were able to navigate other online platforms like *myUNISA*, *mylife* and Facebook and complete tasks as illustrated in Figure 5.2.1.4 above. It appears that this level of computer literacy among rural students could have the potential to make online learning a success, if provided the considered attention.

Knowledge in relation to the use of online learning facilities

The following Table 5.2.1.11 presents the knowledge the participants have regarding the use of online learning facilities.

Table 5.2.1.11: Participants' knowledge regarding the use of computers, Internet and online learning facilities.

Participant code	*myUNISA*		*mylife*		*e-tutoring*		General computer usage(ability)	
	Knows	Does not know	Knows	Does not know	Knows	Does not know	Average	Basic
15G1	√		√		√		√	
15G2	√		√		√		√	
15G3	√		√		√			X
16G2	√		√		√		√	
16G3	√		√			X	√	
15S1	√		√			X	√	
15S2	√		√			X	√	
15S3	√		√		√		√	
16S1	√		√		√			X
16S2	√		√		√			X
16S3	√		√		√		√	

The above Table (5.2.1.11) shows that all participants knew and used *myUNISA* and *mylife* email. The evidence provided by participants indicated that they would however only use *mylife* during times of study to check for lecturers' notices or general communication from UNISA. Also, it indicates that almost 25 % of the participants did not know about *e-tutoring* while the rest of the participants knew about it. However, that awareness did not translate into the utilisation of *e-tutoring* as only 35 % of participants used the e-tutor platform (see figure.5.2.1.2).

In addition, more than 70% of the participants' general computer knowledge was average as mentioned by participant 16S2 that "*well… one cannot say I know much, because they are forever improved. I can develop a report at the required time. I have knowledge of using the Internet. I can do research on the net. The list is endless"*. In the context of UNISA rural students, and with reference to this study, average would refer to 'intermediate' ability while basic would mean a

'beginner' level. The assumption is therefore that the extent of this ability may not be a barrier for participants' computer and Internet usage.

5.2.2.3.2 Sub-theme 3.2: Knowledge for computer usage gained from fellow students

Seven of the participants interviewed indicated that they received support on computer and online learning usage from fellow students or relatives. Four of them indicated that fellow students at UNISA and three of them by relatives at their villages assisted them. Likewise, Participant 15S1 received help from fellow students: "*that guy who helped me, I met him at UNISA. I did not know anything about computers. When I saw him with these Law books, I decided to swallow my pride of shyness and approached him for help and he had no problem. Ja…"* Participant 16S3 added the same experience by expressing that "n*o one taught me about Computers. My other friend helped me and when I am with him I learn some of the things"*.

The participants in general knew how to use computers at the time of registration. They only needed further assistance with honing their skills in order to use other online learning facilities. The picture emerging indicated that only two participants used the UNISA organised programmes. Table 5.2.1.12 below illustrates the source of support the participants received and relied on.

Table 5.2.1.12: Sources of computer and Internet support according to registration periods

Year of registration	Relatives at home	Fellow students at Unisa	UNISA support programmes	Self-taught
2015	1	3	1	1
2016	2	1	0	2
Total %:	27.3%	36.4%	9.0%	27.3%

The Table 5.2.1.12: above points to the environment where peer support could be valuable for registered students to cope with the online learning challenges as a first time experience and that some first generation students might not experience extreme challenges if support structures are put in place in most rural areas. This evidence is confirmed by more than 60% of participants who benefited from their peers and relatives rather than from UNISA support programmes.

5.2.2.3.3 Sub-theme 3.3: Knowledge for computer usage gained from available online tutoring (Signature modules)

The signature modules introduced by UNISA in 2013 played a role in promoting awareness of online learning among UNISA students. Students enrolled for these modules were required to engage in weekly online tasks that led to their participation resulting into the final examination mark. Students were therefore compelled to participate and this culminated in the enhancement of the students' online learning skills. They learned how to log into the learning Facility and how to work online (Baijnath, 2014).

In this study, participants reported positively about the role signature modules played to enhance their digital literacy skills and self-efficacy. When reporting about the digital support they received, participant 15S1 indicated that "*I attended only one training programme at UNISA in the Computer Lab. It was for my online module (signature). That is why I said also that module helps you to know a lot about these computer systems. They also helped us how to submit assignments online. But if you are not doing an online module you will never know about these things".* Participant 16S1 reported that "*I can get anything I want on the internet. So the SJD1501 (signature) module which I do will force you to be online, whether you like it or not".* So, both 2015 and 2016 participants who enrolled for signature modules had no problems working online, except that their participation was not as adequate as would be expected in the *e-tutoring* facility. It is clear that signature modules enhanced the participants' chances of success in using online learning facilities.

5.2.2.3.4 Sub-theme 3.4: Knowledge for computer usage gained through UNISA support programmes

100% of participants knew how to use computers. The following tables illustrated the knowledge participants had for computer usage. Table 5.2.1.4 and 5.2.1.8 presented information on the technologies commonly used by participants and the frequency of usage respectively. In spite of these capabilities, participants indicated that their peers and relatives on the usage of computers assisted them. For example, his son assisted participant 15G1 while his brother at home assisted participant 16S1.

Only two participants mentioned the support by UNISA. The programmes attended were highly appraised regarding their quality and relevance. It is clear that UNISA computer training

programmes were not able to sufficiently reach the rural students as originally intended with the purchase of a mobile bus.

5.2.2.3.5 Sub-theme 3.5: Ineffective *e-tutoring* notifications

Almost 70% of participants in the study did not know about *e-tutoring*, and yet they used other online learning facilities such as *myUNISA* and *mylife* email address. It was found that the problem related to lack of knowledge regarding the facility itself. Participants did not know what it was about and they apparently did not bother to read the accompanying message about its purpose. Participants who eventually accessed the *e-tutoring* facility were because of their fellow students who introduced them to it. It appears that, the sms and *mylife* email messages were not a sufficient media to inform them about their *e-tutoring* learning sites as most of the participants either ignored the messages or misunderstood them for being meant for senior students. In accordance with this finding, it is clear that making students know about *e-tutoring* and what it is all about would be paramount to a successful usage on online learning facilities.

5.2.2.4 Theme 4: Participants' Views related to online learning and Internet facilities

Participants who accessed online learning and Internet facilities had their views alternating between good and not good when they used the platforms. Some participants viewed online learning as helpful, convenient, user-friendly, interesting and some as frustrating for new students and rural students. Their views depended on their situational context because some of them had never accessed nor used particularly the *e-tutoring* facility. However, generally, for those who accessed *e-tutoring* facility, they viewed it positively as reflected by participant 15S1 that "*e-tutoring is fine. It is fine when you know it. Like if they have explained to you".*

5.2.2.4.1 Sub-theme 4.1: Views related to usage of online learning facilities

The central view presented by almost all participants was the issue of devices for internet and online learning. This ranged from suitability of devices to availability of data bundles to access the Internet. They indicated that their inadequate usage of online learning facilities was primarily due to lack of Internet access as explained by participant 16G1 that *"I can say lack of Internet access. Lack of knowledge of Internet usage".* Internet access and suitability of devices for access were the central themes.

Table 5.2.1.5 provides a list of online learning facilities available and used by participants and all (100%) participants appreciated their usefulness and the manner in which they were able to serve students who reside far from UNISA campuses; that they can be able to download material from the web facility, that they can be able to submit assignments online and also that they can be able to communicate with their lecturers and other students online as presented by participant 15S2 that *"the Facility is very good. Marvellous actually. Actually what I can say is that it actually gives you enough time to study. You do not have to come to the campus. You just log-in and you get what you want. It caters for everyone".*

It is clear that participants found online learning facilities helpful and user-friendly, except that this view was only referred to *myUNISA* and *mylife* email because those were the facilities they accessed. Concerning *e-tutoring*, more than 25% of participants who used it also found it easy to use and beneficial for their studies. It is equally clear that if *e-tutoring* could be familiarised to all students, it would enjoy a similar reception as the other online learning facilities. Both 2015 and 2016 participants were appreciative of the online learning facilities and would not like them to be discontinued, as long as proper strategies are put in place as mentioned by participant 15S1 that "*the advantages are many but without care it can cause damage".*

5.2.2.4.2 Sub-theme 4.2: Views relating to accessibility of online learning facilities

Because of the unavailability of computers and Internet access in rural areas, the participants viewed the current online learning as benefitting those who live closer to UNISA campuses. They were not able to come to UNISA because of distance and shortage of money for travelling. For those who had Internet cafés in their home areas, their views were that these Internet cafés were not as helpful for online learning as thought to be. As an example to indicate the limitations of Internet cafés, participant 15G2 mentioned that "*I think many students have a challenge because they don't have laptops and when they go to an Internet café there is no one to help them on UNISA things".*

Almost 90.0% of the participants indicated that they were not aware of availability of community centres that they could use in their areas and called for partnerships to be established with such centres to help provide UNISA students with access to computers and the Internet. The one participant who used such a centre mentioned the insufficient number of available computers and viewed the community centre as not helpful compared to the expectations because "…*I have to*

wake up early in order to be on the queue because there are few computers. It is the Library" (15S1). This participant subsequently came to UNISA campus for computer and Internet access.

It is clear that access for computers and the Internet in the rural areas is a challenge for most of the people and that endeavours may be required to improve the situation.

5.2.2.4.3 Sub-theme 4.3: Views related to usefulness of devices for online learning.

As reflected in table 5.2.1.3 above, above 70% of participants appear to view cell phone usage as useful and a convenient tool for learning online as long as the learning material is accessible and compatible for their use. The participants' use of cell phones was found to be centred on issues such as checking assignments and examination results, notices and announcements on *mylife* email and for surfing. They were not using a cell phone for assignment writing or submission and other higher order learning exercises. They relied on computers and laptops for that level of learning. Their views were that if you use a cell phone with a small screen you might not be able to access and view some of the learning exercises as indicated by participant 15S1 when addressing access to *e-tutoring* facility by saying that *"I had a challenge because I used my cell phone because my phone could not show in WordPad. It needed a smartphone or a computer" …*

Briefly, the account provided by most participants reflected a positive acceptance of the usefulness of cell phones for online learning, as long as they are compatible for the learning material as the Smartphones, tablets and laptops are. Their views were that suitable cell phones such as smartphones could help facilitate online learning as indicated by participant 16S1 that *"I do not use a computer. I use my smartphone. I submit my assignments using the smartphone. All my assignments I am not typing them, I write them and scan them and send them".* Since they did not have suitable cell phones, more than 70% of these participants used a cell phone in conjunction with computers, laptops or tablets whenever the need arose to access the Internet and work online. From this percentage, about 45 % were 2015 participants and 27% were 2016 participants (see Table 5.2.1.13 below).

Table 5.2.1.13: Cell phone usage by participants according to registration periods

Year of registration	Total number of participants	Total percentage
2015	5	45.4%
2016	3	27.3%
Total	8	72.7%

The above Table 5.2.1.13 provides a clear indication that cell phone usage is common among most students and could therefore be promoted for successful online learning, as long as the learning material is compatible for its use and appropriate training is provided to help students use it effectively. Participant 16S1 demonstrated the ability to do everything related to his studies using his smartphone.

5.2.2.5 Theme 5: Existing computer training course at UNISA for students

UNISA has a series of online support programmes that it offers to assist students with computer, Internet and online learning skills. Some of the support programmes offered are made available through computer- based training programmes and Signature module orientations. Table 5.2.1.14 below illustrates the participants' experiences relating to the online learning support programmes offered.

Table 5.2.1.14: Awareness of Online learning training support programmes

Participant code	*Comment*	*Participant code*	*Comment*
15G1	"*I am not fully aware of the learning support programmes. I receive sms' to attend training but you find that Mr X is not around. He is at court or somewhere."*	*15S1*	*"Haaa…..Aii…jaja…I don't wanna lie, I don't know. No..., no, there was no staff. But like when it comes to computer technology and surfing the net, ahh… no one was there."*
15G2	*"Nooo…I have never had any training from UNISA*	*15S2*	"*I have never attended any organised UNISA computer*

	staff. I teamed up with other students in Unisa"		*training programme; I have never had the chance to attend. I heard about them."*
15G3	*"No… I am not aware of those programmes. Jaa… I have never been trained by UNISA staff to learn about computers.*	*15S3*	"*I have never attended any support programmes, and I am not even aware of such programmes. I have not received any invitation."*
16G1	*"Yes, I used to see the Unisa Bus. I was part of them. I attended the UNISA Bus training. I would say the training was useful because there were things that I was unaware of".*	*16S1*	*"Ah…I am not aware of any support programmes that UNISA is providing. I may have received a sms about invitation to attend training, I am not sure because I receive a lot of sms' from UNISA and so I may not be aware of that invitation".*
16G2	I normally get sms' inviting me for training. I have seen two invitations already. Unfortunately, I could not attend because I perceive myself as moderately good. Each semester I do receive sms'	*16S2*	"*I only know the Signature modules and the Computer Lab, but I don't use them because I don't usually go to UNISA. Noo… are they training them for free?"*
16S3	*"I do not know much about this online support. I have heard about the Mobile Bus but I have never seen it, especially around the area where I come from".*		

The picture emerging in Table 5.2.1.14 above indicates that some participants were aware of online learning support available in UNISA but did not use the services. From the eleven participants interviewed, five were aware of the programmes and six were not aware. Those that were not aware did however not deny that they might have received invitations. Regarding those that were aware and attended the training programmes, the appraised them as good and helpful. Following is a tabular presentation of the degree of awareness or unawareness of the existing support programmes available in UNISA.

Table 5.2.1.15: Awareness of computer support training programmes

Participant code	Knew about programme	Attended programme	Did not know and did not attend programme	Received invitation but did not attend programme
15G1	√			√
15G2			√	
15G3			√	
16G1	√	√		
16G2	√			√
15S1	√	√		
15S2	√			√
15S3			√	
16S1			√	
16S2			√	
16S3			√	

The above table (Table 5.2.1.15) shows that few students attended the training programmes and this has been confirmed by feedback reports from ICT staff who always go out to train students at rural areas. The picture emerging indicates that there may be a need to review the implementation process of this programme. It is clear that a review in relation to the strategy for the delivery of support programmes may be necessary for future operations, taking also into consideration the proliferation of sms invitations that may have confused them. As mentioned by Participant 16S1 that *"…Ah…I am not aware of any support programmes that UNISA is providing. I may have received a sms about invitation to attend training, I am not sure because I receive a lot of sms' from UNISA and so I may not be aware of that invitation"*.

Moreover, from the group of participants who were aware, one 2016 participant attended one support programme that was offered when the mobile bus visited their rural area and the other 2015 participant attended at the UNISA Polokwane campus. This was In relation to signature modules, only one 2015 participant attended a session organised for the signature modules students. In general, more than 80% of participants did not attend these support programmes. The two participants who attended reported enthusiastically about these two programmes. In the computer laboratory, the support was in relation to how to learn within the signature modules and the mobile bus focussed on computer - based training. They both appraised the training programmes as good and helpful. Participants who did not attend support programmes indicated that they received some support from their pears or relatives in their villages. It is clear that a review in relation to the strategy for the delivery of support programmes may be necessary for future operations, taking also into consideration the proliferation of sms invitations that confused them.

5.2.2.6 Theme 6: Difficulties experienced by students for internet and e-learning facilities

The challenges under review were on all general issues participants faced regarding online learning. The issues on focus were access to computers and the Internet, the ability to use computers and navigate the net, financial constraints related to travelling to access points, buying data to access the Internet, the suitability of the available tools to access online systems and the participants' confidence level when being online. Following are the challenges as experienced by participants.

5.2.2.6.1 Sub-theme 6.1: Limitations experienced towards Internet access and online learning facilities

Participants experienced various limitations to access the Internet as presented below.

Lack of suitable devices

Participants interviewed indicated that lack of suitable devices for online learning was a serious challenge for their learning. They indicated that a cell phone with a small screen posed a challenge. The problem would be mostly when you have to type. They alleged that you may not be able to use it for all activities that you need for learning, for example, participant 15S1 indicated that "*I had a challenge because I used my cell phone because my phone could not show in WordPad. It needed a smartphone or a computer".* When asked about the students' inadequate usage of online

learning platforms, Participant 15S2 indicated that "*I think is the devices. I can say tools. Ja…, some of us we do not have the correct devices to use to access online". So, it appears some students would not participate* as mentioned by participant 15S1 that "…*I would participate only when I have access to a computer that is why I don't participate every time".* Lack of suitable devices appeared to be one of those contributing factors for the inadequate usage of online learning. It is clear that without suitable devices one may not be able to work successfully on online learning facilities.

Financial constraints

Money as a constraint featured in all deliberations with the participants in the sample. All participants attributed this constrain to the purchase of data bundles for Internet access and that of suitable devices. They indicated that they always ran short of money to buy data bundles and had at times to incur substantial lots of money travelling to UNISA campuses for computer and Internet access. In this case, they would not always be online as expected. In order to overcome this problem, participant 15S1 suggested the provision of Digi-bands to assist the students to work off-line as in signature modules. Participant 15S2 further suggested the provision of tablets by UNISA and that the tablets will be protected for UNISA study purposes only. It appears a solution has to be found to minimise the need for students travelling to UNISA for computers and Internet access.

Poorly resourced rural areas

Additional to the weak internet coverage, some rural areas do not have Internet cafés or community centres where Internet and computers can be accessed. Almost all participants interviewed lived in areas where Internet cafés are fewer and expensive to use. So, as indicated by participant 15S1 that *"because you are from the rural areas, you don't have access to the Internet. You have to come to town to access the Internet because you have no data. There is nowhere you can find an Internet café. They are scares".* Conversely, when they went to Internet cafés they still experienced challenges as narrated by participant 15G2 that *"I think many students have a challenge because they don't have laptops and when they go to an Internet café there is no one to help them on UNISA things".* So, the challenges continue unabated. It is clear that Internet and computer access would be a challenge in rural areas as compared to urban areas. However, there were only two

participants who access to Internet cafés, they used them as, and when the need arose as reflected in Table 5.2.1.4 above.

Lack of skills to use computers

Some UNISA students lack skills and are shy to use computer and the Internet as reflected in Pitsoane et al. (2015). The participants in this sample reflected an average/basic ability on computer skills. Some participants pointed out that the lack of computer literacy is a frustrating experience. As a general comment regarding the lack of computer skills among rural students, participant 15S2 indicated that "…*the usage, the operation of Computers, especially we from rural areas, we grew up in an environment where we did not have access to computers so, it becomes difficult to use computers because some of us it becomes very difficult, we do not know how to use them".* Participant 15G2 reported thus: *"It is sad to see someone who does not know how to use computers and then in future they may be expected to use it and they don't know how to use them and learning support does not reach us this side".* Participant 15S3 further lamented this situation by indicating that for first time students *"it should be said that if you are a first time student, before you can operate you should come for support programmes".* The challenges reported on were not affecting all participants who knew how to use computers as reflected in Table 5.2.1.4. Therefore, the finding in this study was that all students can use computers and their challenge could possibly be when they have to apply advanced computer skills, but still, this would presumably not be a barrier for their online learning, as they were able to navigate various platforms

5.2.2.6.2 Sub-theme 6.2: Lack of training on computer and online learning usage

UNISA provides opportunities for student training on technology usage. The training provided is earmarked for all students regardless of locality. The emergent picture is this study revealed that rural students were not attending the training support programmes as anticipated. Almost 80% of participants in this study did not attend computer-training programmes organised for rural students.

This is confirmed by participant 15S3 who indicated: *"I have never attended any support programmes, and I am not even aware of such programmes. I have not received any invitation.*" All other 80% of participants reported similarly and among them, some did not dispute the fact that they might have received the sms notifications as indicated in the table below. Table 5.2.1.15

provides illustrations of the extent participants are aware of computer support training programmes available for them in rural areas.

Table 5.2.1.15: Awareness of computer support training programmes

Participant code	Knew about programme	Attended programme	Did not know and did not attend programme	Received invitation but did not attend programme
15G1	√			√
15G2			√	
15G3			√	
16G1	√	√		
16G2	√			√
15S1	√	√		
15S2	√			√
15S3			√	
16S1			√	
16S2			√	
16S3			√	

The above table (Table 5.2.1.15) shows that few students attended the training programmes and this has been confirmed by feedback reports from ICT staff who always go out to train students at rural areas. The picture emerging indicates that there may be a need to review the implementation process of this programme.

5.2.2.6.3 Sub-theme 6.3: Lack of assistance on computer usage

Almost all participants indicated that they did not receive assistance from UNISA staff on how to use computers and online learning facilities. They relied on their peers for assistance. This kind of assistance ranged from usage of online learning facilities to computer usage in general. For instance, participant 15G2 mentioned the lack of assistance by indicating that she/he has never been trained by UNISA staff and this is evidenced when she/he remarks that "*Nooo…I have never had any training from UNISA staff. I teamed up with other students in Unisa."* This finding is again evidenced in Table 5.2.1.15 which reflects the failure of many participants to attend the computer training support programmes that were planned. It is clear that the rural outreach programmes that are organised may need to be reviewed so that students could have access to assistance by ICT staff or their proxies whenever there are visits to their areas.

5.2.2.6.4 Sub-theme 6.4: Lack or weak Internet coverage

Some areas have poor telecommunications infrastructure that makes it a challenge to access the network. In some areas, you may have to travel to a specific point in order to access the network. Participant 16S1 indicated that "*in the rural areas there are no Internet lines or telephone line to help connect the Internet. You may find a computer in a household but chances of accessing an Internet are slim".* Participant 16G2 who politicised the issue by stating that "the limited access that is specifically designed for people who live in certain areas" adds to the problem corroborated this challenge. Participant 15S2 further pronounced his/her frustrations that "*the only thing that bothers me is sometimes you know, this thing, the network coverage. It is sometimes very weak. So when it is very weak sometimes when you are logged-in it cuts you off–more specifically where I stay".* It is clear that weak internet bandwidth can be a challenge for successful online learning and it would be essential that this challenge be taken into consideration when planning for online learning.

In addition to the challenges presented in the sub-themes above, other notable challenges such as tutors not periodically updating their *e-tutoring* learning sites were mentioned, although one participant who used the site raised the complaint. The other two participants who did not raise this complaint acknowledged that e-tutors were doing a splendid job as they provided weekly tasks and were always available on site to provide support as mentioned by participant 15S2 that *"the tutor is a good person and she is always by our side…. Whenever you have problems with your studies, she is always there to assist".* According to this study, it appears that most e-tutors were up to their tasks because there was only one participant who complained about tutors not updating their facilities. It is however clear that *e-tutoring* facility not updated on time could cause some frustration for some students who frequent the site.

At the start of this study, it was presumed that students' confidence level would be a contributor to inadequate usage on online learning platforms, but in accordance with the findings in this study, that was not to be. As presented in the various tables above, particularly Table 5.2.2.1.8, participants used various social platforms such as Facebook and WhatsApp, including myUNISA with ease. Almost all participants indicated that they found online platforms exciting and helpful. They had no problems with being online as mentioned by participant 16G2 that "*I don't have a fear of being online".* So, low self-esteem appeared not to be a contributory factor for inadequate participation although at the initial stage of using online systems students found themselves

frustrated and confused for lack of knowing what to do. They did not know what *e-tutoring* was about and how to access it. This affected their confidence level at the initial stage. It is therefore clear that students would need to be provided support prior to their being introduced to online learning systems.

5.2.2.7 Theme 7: Participants' suggestions relating to the potential for improvement

In view of the challenges and experiences participants went through regarding online learning support, an opportunity was opened for participants to provide possible solutions they think could help improve online learning in UNISA. Some of the suggestions proposed below were linked to the challenges presented in the above section.

5.2.2.7.1 Provision of devices for registered students

Lack of suitable devices was raised as a challenge for most of the students to access the Internet and use for online learning. As a solution to the problem, some participants proposed that UNISA provide devices to all students registered. They proposed that these devices be provided as part of the study material packages. As a way to ensure that they would not be used for activities unrelated to UNISA studies, participant 15S2 suggested that ***"****they should be programmed to do UNISA material only because it would not be good if they are not programmed. They will not serve the purpose for studying. In this way they will be serving the purpose of studying".* Taking a leaf from the experiences in another online module, participant 15S1 called for the provision of devices as in the signature modules where students were provided with Digi-bands. According to him/her these Digi-bands would help the students who have access to a computer to be able to work off-line and only connect to an Internet connected device when the need to upload work completed arises. Table 5.2.1.16 illustrates the participants' responses to the need for devices to be provided for all UNISA registered students and also those that need the extension of services such as *WiFi* services and partnerships with community centres at rural areas.

Table 5.2.1.16: Provision of devices for online learning access

Year of registration	Number of students needing devices	Percentage	Number of Students needing any other services rather than devices	Percentage
2015	2	18.2%	4	36.3
2016	3	27.3	2	18.2
Total %	5	45.5	6	54.5%

The emerging picture above is a confirmation of the need to prepare students for online learning prior to their being enrolled to the programme. 2016 participants, unlike the 2015 participants, needed devices to be provided to them, as they were not ready for online learning. Another emerging factor is the need by over 40% of participants (2015 & 2016) to be provided with devices for online learning. The challenges they face with shortage of sufficient computers to cater for them at UNISA and community centres could be the reason for this need.

5.2.2.7.2 Orientation in online learning processes

About 60% of participants were not using the *e-tutoring* online learning facility. Those that received sms indicated that they did not know what they should do with those sms'. Some of them even thought that the sms' did not belong to them. Participant 15S3 indicated that "*they must make students aware of what is happening in UNISA. It should not only be for registering many students in a year. Before someone is admitted, let that person know".* In support of this proposal, participant 16S3 had indicated that when he received the sms *e-tutoring* notification, he did not know that it was directed to him. He thought it was meant for senior students. He/she clarified this by saying that "*Many times I heard people talking about e-tutoring but I did not know what e-tutoring is about. I thought it is for those guys who are doing Masters or fourth level".* He added by commending the student orientation session he attended in 2017 that it helped him to now know about *e-tutoring* and its value.

Seeing that there were problems with student usage of *e-tutoring*, the regional office had decided to unilaterally include this online learning in the student orientation programme. So, it is clear that if orientation could have been provided to students before the start of classes, those that were aware but did not use the facility could have utilised the service.

5.2.2.7.3 Provision of computer–based training programmes

Participants pointed out that they were not aware of the availability of computer based training programmes. Participant 16S2 indicated that *"I have not heard of the computer training bus. No… are they training them for free?*" On the need to support students on computer literacy and the Internet, participant 16G3 suggested that UNISA "*organise a programme that would introduce them to the computers and e-learning as well".* A basic-computer based training was recommended, They further suggested that UNISA ensure that almost all targeted students attend the training, not just a few as it was currently happening. They also proposed that more computers be made available so that they can have space to be trained by their peers whenever they are at UNISA.

Almost all the 80% participants indicated that they learned how to use computers with the assistance of their peers. So, peer support was recommended in addition to UNISA managed training support. It was further suggested that there should be some staff members allocated to assist newly registered students with computer usage, like it is done when students register online at the UNISA self-help centre. All the participants suggested that training and support be provided to rural students and that UNISA ensure that almost all students targeted attended, not just a few. According to participant 15S3 "*if you are a first time student, before you can operate you should come for support programmes*." The picture emerging indicates that almost 80% of participants were not aware and did not use computer support programmes as illustrated in Table 5.2.1.14 above.

5.2.2.7.4 Provision of Internet access in rural areas

Despite the availability of community information centres, which UNISA has partnered with, out of the eleven participants interviewed, ten participants indicated that they did not use community centres as they were not available in their areas, and they had to use either their own devices, employer's devices or UNISA devices (see Table 5.2.1.5 above). For example, participant 16G1 elaborated on this matter by mentioning that "*No, no, no. we do not have a MPCC here".* And the ten participants interviewed mentioned a similar response.

It is at these community information centres where students can be able to gain access to computers and the Internet. Participants called for the provision of Internet access at rural areas in the form of a mobile bus, partnerships with community libraries and centres, and *Wi-Fi* support by

partnering with telecommunication companies. According to participant 16G3, these provisions would help rural students **"***so that they do not have to travel"*. It is therefore clear that the community partnerships, which UNISA Limpopo has entered into, may require to be reviewed in terms of locality because almost no participants in the study were aware of them. It is also clear that the partnerships UNISA Limpopo entered into may need to be extended to the availability of *Wi-Fi* services that could be sponsored by telecommunications companies.

5.2.2.7.5 Making more space available in UNISA

Almost all participants indicated that although online learning can be accessed away from UNISA campuses, some provision should still be made available for accessing computers and the Internet at UNISA campuses. They complained about the few computers available at the main UNISA office and at their rural offices. They indicated that the overflow of students who wanted to make use of these computers made it difficult for all of them to have access on a day and this became costly for their travelling.

The participants called for the need to have more computer spaces at the UNISA offices and a stronger *Wi-Fi* broadband in order to offset the many interruptions and slowness that they sometimes experienced during high traffic Internet usage. The emerging picture however is the low percentage of participants who wanted more computer space at the UNISA office (see Table 5.2.1.5 above). This picture could strongly be informing us of the need to provide more spaces and opportunities in rural areas because almost 70% of participants were able to work from their homes using own devices such as cell phones or from their work places.

Re-vamping the *e-tutoring* notification process

The process to notify students about their linkage to the *e-tutoring* facility appeared to be ineffective. Almost all participants who did not use the facility indicated that they may not have received the sms notification. It also appears that the *mylife* notifications are inclusively ineffective as few participants referred to them when asked in the interviews. Table 5.2.2.17 provides an illustration of the effectiveness or lack thereof of the notification processes used by the university to students.

Table 5.2.2.17: *E-tutoring* notification system

	Sms notification	***Mylife* email notification**	**MyUNISA platform**	**Tutorial letter**	**Pamphlets/brochure**
Total participants	5(45.5%)	3(27.2%)	1(9.1%)	1(9.1%)	1(9.1%)

A closer look at the above table (Table 5.2.2.17) indicates that improvements of this system may need to be given more attention concerning the way UNISA notifies students about their *e-tutoring* sites as myUNISA and the brochures available only serve to market the online learning facility, but would not help them identify the *e-tutoring* site they are allocated to. It is therefore clear that the system used to notify students about their sites may need to be reviewed so that notifications are effectively delivered.

Availability of computer laboratory staff for support

The two participants who used computer lab indicated that they found the lab to be helpful. Those that complained about the staff in the lab were informed by other users that the computer lab staff are not helpful, they reported that staff do not pay attention when students requested them for help or they would not be in the lab when you needed them. This showed that these individual participants did not use the computer lab. Contrary to this information, participant 15S1 indicated that he/she obtained sufficient training from UNISA staff in the computer lab. This was a signature module training and he suggested that this type of staff support be available for all modules because they taught them about everything related to online learning. He/she finally felt that **"***if you are not doing an online module you will never know about these things".*

The above are the significant suggestions participants provided to help improve online learning support in UNISA. There were other suggestions raised which fell within these significant suggestions and were therefore immersed in the main suggestions. Such suggestions were about the wholesale provision of computers and data bundles for registered students, building a mini-UNISA in rural areas in the form of a small office with at least one computer, sending of follow-up sms notifications with a *www link* for guidance purposes, and several others.

5.3 DISCUSSION ON PARTICIPANTS' EXPERIENCES OF ONLINE LEARNING SUPPORT

This section (5.3) of the chapter provides an interpretative view of the experiences participants provided in the previous section. The combined experiences are viewed against Moore's theory of transactional distance to explore the possibilities of integrating them into the UNISA Limpopo online learning support initiatives.

From the data collected and analysed, it became evident that all participants were computer literate as they were able to navigate the online learning facilities using the Internet (see Table 5.2.1.6.). It became clear that they did not have any difficulty to work online. They all reported a higher level of confidence about working online. This became clear when one looked at the various online learning facilities they used and the reasons for using those learning facilities (see Table 5.2.1.8). There was however a concern with the participants' inadequate usage of *e-tutoring* (see Figure 5.2.1.2).

From the 11 participants interviewed, four were found to be aware of *e-tutoring* and another four were aware but not using the facility while the remaining three participants were not aware of the facility. Those that were aware did not participate in the sessions and this confirmed the concern regarding the inadequate usage of the *e-tutoring* facility by UNISA students. This picture therefore leads to the research question which is: *How do rural students in Limpopo Region experience the online learning support provided by UNISA as an Open and Distance Learning Institution?*

The experiences participants shared with me varied from; awareness of the *e-tutoring* online learning facility, usability of the online learning facilities, access to computers and the Internet, support programmes for online learning, how they knew about the *e-tutoring* facility, infrastructural support in their home areas, difficulties with online learning and the various challenges they faced. Based on these experiences, participants concluded by suggesting possibilities for making online learning accessible for all UNISA registered students.

5.3.1 Experiences related to awareness of the *e-tutoring* online learning facility.

Participants' awareness of the *e-tutoring* learning facility was unsatisfactory as almost above 60% of them did not access it. Some knew about it and did not use it while others did not know anything

about it. About 27% of the participants who used the facility found it helpful for their learning but the frequency of its usage was inadequate as some accessed it once in a week or whenever they had data bundles. The causes attributed to this low usage varied from the type of devices they used, such as a cell phone with a small screen, to lack of data bundles for Internet access and distance from the Internet cafés and some UNISA offices.

Most of these participants who accessed the *e-tutoring* facility indicated the confusion that faced them when they had to access the facility. They did not know what the facility was about and how to access it as mentioned by participant 15S3 that *"before someone is admitted, let that person know"*. These participants eventually relied on the experiences of other students who were already using the *e-tutoring* facility and with the passing of time, they began to enjoy and see the value of the *e-tutoring* learning facility. It is in this instance that transactional distance in a learning environment can be a barrier to successful learning and according to Moore (1993:22), this "separation between teachers and learners profoundly affects both teaching and learning". This assertion by Moore is in agreement with the plea by participant 15S3 that "before someone is admitted, let that person know".

According to Angelino and Natvig (2009:7), the students enrolled for online learning modules should be given "enough information prior to the first day of class to make them feel comfortable with the technology and the instructor." They should be provided with orientation to navigate the facility and be familiar with it at least a week before the commencement of the class. Travers (2016:56) concurs with Angelino and Natvig (2009:7)'s assertion that "depending on the online student's situation, either on-campus or online campus orientations can be used to inform students of what they can anticipate in the online environment, as well as the academic supports available to them". Similarly, the Jomo Kenyatta University of Technology model of online learning also takes care of this prior preparation of students (see chapter 3, section 3). They conduct compulsory one-week orientation sessions for first time registered students to familiarise them with the usage of the online learning process. In this case, the chances of students using online learning facilities adequately would be enhanced.

When considering the above postulations, it appears a gap exists in the familiarisation of students regarding *e-tutoring* and its usage.

5.3.2 Experiences related to the use of online learning facilities

The *e-tutoring* online learning facility is central to all online learning facilities available in UNISA to facilitate teaching and learning and yet, it was found by various researchers within UNISA to be inadequately used by online learners. This study also confirmed the finding. Hundred per cent of participants used the myUNISA and *mylife* online learning facilities but when it came to usage of the *e-tutoring* platform, their usage was inadequate. All participants rated these online learning facilities highly. They regarded them as a vehicle to bridge the distance that affected most rural students when they had to communicate with the university. They could now download study material directly without waiting for delivery from the Post Office, and participate in all learning activities without some barriers as long as they had access to the Internet and the devices.

There were various challenges raised by participants regarding access to online learning facilities and some of them were relating to personal challenges such as lack of money to buying data bundles and for travelling to UNISA or nearby Internet cafés; lack of skills to use computers, and usage of their technology devices which were not suitable for online learning. Some other challenges would be beyond the participants control such as weak Internet in their areas and unavailability of community centres and Internet cafés for use. This scenario indicated that if these challenges were to be met, all participants would have been able to adequately use online learning facilities. It is in this instance that Travers (2016:58) asserts that “colleges should pre-assess all new online students enrolling in online courses”. He goes on to say that assessment should include technological skills and technological accessibility of students enrolled in the course (58). In this way, the potential for aligning the student needs with the climate for an online learning environment would be enhanced.

The percentage of participants who used the general online facilities as compared to those who used the *e-tutoring* platform is very disconcerting (see Figure 5.2.1.2). It is however noted by many researchers, including Perry et al. (2008) that online learning is not a preference for all students. That is why there are those who vicariously use online learning, that is, they do not actively engage the online learning process. “However, given that studying via the Internet is still quite new to many learners… it might be appropriate to seek ways to provide additional orientation to online learning before students begin the programme” (Perry et al.,2008:13). In this instance, it would be appropriate to provide more support as asserted by Travers (2016) if the institution expects

students to actively participate in online learning platforms, and also have strategies in place to identify and recognise vicarious students who visit the learning facility without participating.

The Jomo Kennyatta University of Technology is one Institution that recognises the possible difficulties, which may affect a successful online learning programme. In their system, they have a compulsory programme that requires all online registered students to attend a weeklong orientation programme on the use of their online learning facility (see Chapter 3). In this way students are better prepared for online learning prior to the start of the class. Alongside this programme at JKUAT, and the assertions by Perry (2008) and Travers (2016), Ustati and Hassan (2013:293) further call for the continuous training and teaching of students on "how to utilise the online information provided".

In addition to the experiences explained above, it would still be appropriate to understand some of the other factors affecting students regarding the adequate utilisation of online learning facilities as discussed below.

5.3.3 Experiences with factors related to access to computers and the Internet.

The digital divide, access to suitable devices, unavailability of community centres or suitably staffed Internet cafés, few computers at UNISA and unavailability of staff to support them, money to buy data bundles for access to the Internet and also pay for travel costs to distant UNISA campuses and Internet cafés are some of the factors mentioned.

Numerous researchers view the digital divide in South Africa as a contributing factor to the inadequate use of online learning facilities. This is a situation where some people are not able to use technological devices or acquire them. This situation is prevalent at under-developed communities with poor infrastructure and low socio-economic status (Mashile & Pretorius, 2003). According to Mashile and Pretorius (2003:136) and the CoL (2007), it would not be helpful to refrain from using online learning facilities for fear of creating the digital divide. They regarded the recognition of a digital divide "as a perpetuation of this divide in whatever form".

The route followed by UNISA is concerning the acceleration of the use of online learning, and thus the movement towards UNISA becoming an Open Distance and e-Learning Institution (ODeL). It is therefore planned in the UNISA strategic Plan 2030 that by 2020 almost all modules should have an online learning form of teaching and learning. However, the challenge according to Travers

(2016:54) is that “many rural students suffer from the lack of modern technological infrastructure to support online learning”. They are faced with poor rural infrastructure. This also applies to UNISA rural students who some of them do not have community centres and Internet cafés at their residential areas. They have to travel long distances to access computers and the Internet at UNISA offices or Internet cafés. Money becomes an added cost for them to access learning. In this case, the poor infrastructural developments in rural areas may need to be taken into consideration when rolling out online learning.

The use of suitable devices plays a role for the adequate use of online systems. It is clear as reflected in Table 5.2.1.4 above that students who use a cell phone for learning, would also need to use a computer or a laptop. The picture reflected in table 5.2.1.4 above provides a clear picture of the need for the use of suitable devices to access online learning facilities. The participants in the study were found to be lacking in the possession of suitable devices as they mostly raised this issue, even when they used cell phone. According to the participants, not all cell phones are suitable for online learning as one would not be able to do certain tasks using it. It also appeared that the use of a cell phone, even if it is a smartphone, requires advanced knowledge of digital literacy when applied to learning. This advanced level of digital literacy may be a challenge for most of the adult learners. Only one participant from all the 10 participants was able to use the smartphone for all types of learning. The participant was able to send assignments online using the smartphone by first scanning them. Nine participants used computers for online assignment submissions and two participants used the Post Office or UNISA assignment boxes to submit their assignments. It is therefore clear that cell phones/smartphones alone would not be a common solution to the suitability of devices by learners of all age-groups for online learning.

Student support as another factor is essential for learning in all environments. According to Travers (2016) and Angelino and Natvig (2009) student support provided for students at traditional institutions should be equivalent to the support programmes provided to distance and online learning students. Similarly, UNISA invested enormous amounts of money for learner support to ensure that the students’ learning experiences are enhanced. Provision is also made available to reach out to rural students by way of a mobile bus, which is assigned to train students on computer literacy, and online systems (see Chapter 3). It appeared that these programmes were not marketed sufficiently to rural students as most participants were not aware of them. Some students

went to the extent of asking if they are paid for if they wanted to attend. Participants in the study were all found to be moderately computer literate but this would not imply that the lack of publicity of the mobile bus project is immaterial for online learning as there might still be other students who would like to learn more about computers. It is therefore essential for the university to review the strategies used to provide support to rural students so that a large number of them could be reached.

5.3.4 Experiences with difficulties for online learning access

The difficulties under discussion related to all general issues participants raised regarding online learning. The issues on focus were access to computers and the Internet; lack of suitable devices; lack of the ability to use computers and navigate the net; weak Internet coverage in some areas; poorly resourced rural areas; financial constrains related to travelling to access points; lack of support by UNISA staff; insufficient number of computers for use by students at UNISA small offices, and several others which are traceable in these significant difficulties under discussion.

5.3.4.1 Lack of suitable devices

Ferreira and Venter (2011:81) indicate that “many students do not have electronic devices for online communication and that those who have, may not have the skills to uterlise the technology to the fullest”. To compound this challenge, the SRC (2015) called for the complete scrapping of online learning, arguing that UNISA ICT systems are not ready for the online learning implementation and that students do not have the necessary technology devices to use for online learning (see Chapter 3).

This SRC argument runs contrary to the insistence by the Commonwealth of Learning (2007), Mashile, and Pretorius (2003) that refraining from introducing online learning would be a perpetuation of the digital divide.

It is reflected in this study that participants commonly used cell phones to access the internet for online learning. As always argued by Makoe (2011; 2012) about the possibility of using cell phones for learning, almost all participants in this study used a cell phone for certain learning activities. The use of the cell phone was however used interchangeably with computers and laptops except with one participant who solely used the cell phone, which was a smartphone, for learning. It appears that given the proper training and support, students can be able to use a cell phone for

learning, as did this participant. In a study by Viljoen, du Preez and Cook (2006) and Chaka (2012), teaching and learning with cell phones was tested and found to be possible. Viljoen et al. (2006) however cautioned that it is not everything that can be taught and learned using a cell phone. They assert that the successful use of cell phones to support student learning depends equally and critically on the ability of educationists to design and develop didactically sound e-learning opportunities and environments. Therefore, according to Viljoen et al. (2006) it is not the compatibility of cell phone that determines their usability for online learning, but didactics is the determining factor.

5.3.4.2 Weak internet coverage

Some areas have poor telecommunications infrastructure that makes it a challenge to access the network. In some areas, you may have to travel to a specific point in order to access the network. In this study most of the participants relied on the Wi-Fi coverage of UNISA for internet access. They travelled long distances to access the UNISA Wi-FI because of the unavailability of Internet in their localities or the weak broadband (see Table 5.2.1.1). The poor rural infrastructural developments appeared to be some of the bottlenecks to implement a successful online learning programme that would be a benefit for all. The National Development Plan 2030 (2012:33) and The Ministry of Communications acknowledge the high cost of broadband Internet connectivity as a hindrance to knowledge acquisition and a contributing factor to the digital divide. The National Development Plan 2030 envisages a policy to realise a fully connected society benefitting from affordable high-speed broadband Internet by 2030, and currently, a commission on the cost of Internet access is under–way (Merten, 2017).

The White Paper for Post School Education and Training (3013) views the provision of Internet to all communities in a serious light and lament the situation that “currently (2013:53) ICT access is extremely uneven, making it impossible for education and other providers to fully harness the potential of using ICT to support teaching and learning, particularly at a distance”. It is therefore hoped that the provision of online learning would take into consideration such inequalities as the DHET (2013:53) initiate “collaboration with the Department of Communications and other government departments and stakeholders to facilitate increased bandwidth and reduced costs for educational purposes, with particular emphasis on reaching those more remote areas”. Fortunately, the investigation into the costs of Internet access has already started and it is

envisaged that the findings of the commission will leave a positive dent on the resourcing of rural areas and empower online learning students.

5.3.4.3 Poorly resourced rural areas

Ngubane-Mokiwa and Letseka (2015:129) in their study observed that there are infrastructural challenges that rural students are faced with and urged UNISA "to reconcile its commitment to the mandate to provide higher education learning opportunities for the majority poor and previously marginalised Africans with the envisaged shift to Open Distance e-Learning (ODeL)". This caution is premised on the reality that rural areas are by their nature "invariably poor and excluded from the broader benefits of modern electronic technologies in what is known as the digital divide" (Ngubane-Mokiwa & Letseka, 2015:129).

In acknowledging these rural conditions UNISA partnered with community centres to help support rural students with access to the Internet and computers. Students were also encouraged to use Internet cafés that would probably be located in their home areas. In the midst of this hope, participants in the study instead indicated that there are no community centres in their home areas; the Internet cafés that are by chance available were poorly equipped with weak broadband and had staff that was not suitably qualified to provide the necessary support.

The absence of these community centres does not necessarily mean that there are no such partnerships, it presupposes the fact that they were either not identified according to the student demographics or that these centres were just not sufficiently marketed among students or that the students' lack of knowledge of support programmes available in UNISA made them to be ignorant about the availability of such resources.

Considering the commitment to shift from ODL to ODeL, UNISA need not be oblivious of the reality according to Travers (2016:54) and others that "many rural students suffer from the lack of modern technological infrastructure to support online learning" and as a result, they would not have the opportunity to improve their skills because of the poor rural infrastructure.

5.3.4.4 Lack of skills to use computers

According to Burton and Goldsmith (2002:26) some students find "open communication problematic".They are not able to handle a heated debate from a posting by other students. On the other hand, there are some students who find online learning enjoyable and are therefore able to

prepare before hand by browsing the course material and also the technical processes involved; they are not intimidated by their lack of computer skills and are prepared to learn and eventually develop their computer skills; and also accept the benefits of online learning regarding the convenience to learn wherever they are with the support of teachers and other students at anytime (Burton & Goldsmith, 2002; Song et al.,2004).

In this study, the general view of participants was that of enjoying being online, having fun and finding online learning helpful for their rural conditions. Almost all the participants were found to be computer literate and able to use various online platforms as exhibited in Table 5.2.1.5. The only concerning factor was the inadequate usage of *e-tutoring* as a learning platform.

Figure 5.2.1.4 indicates the skills level of participants in the study and the emerging picture was that participants could use computers for various activities such as typing, sumbitting assignments online, using email and taking part in online discussions.

5.3.4.5 Lack of support by UNISA staff

There was a concern by some of the participants that UNISA staff are not helping them with computer skills. Almost all participants in the study indicated that they received some help and guidance from their peers rather than from the UNISA staff. There seem to be a lack of proper coordination of the computer training support programmes envisaged for rural students. Participants indicated that they are unaware of the computer support programmes available and alleged to have not received invitations for attending the training programmes.

According to Travers (2016) and Angelino and Natvig (2009) student support provided for students at traditional institutions should be equivalent to the support programmes provided to distance and online learning students.

5.3.4.6 Financial constraints

Rural areas are generally faced with poor infrastructural challenges and poverty. As a result, UNISA experiences a high number of ‘migrant’ students who relocated to urban areas that are nearer to UNISA campuses so that they can access ICT infrastructure. They now face an added cost of paying for temporary accommodation and some of them commuting frequently to UNISA campuses for computer and Internet access.

Money is a problem not only for travelling and accommodation, but also for buying suitable devices and data bundles for Internet access. Almost all participants raised the problem of money as a barrier to access and use the Internet to access the online leaning facilities.

5.3.4.7 Regular updates of the *e-tutoring* facility

E-tutors have the obligation to keep students on the facility continuously engaged. They engage their group of students through participating and commenting on the discussions between students and to some questions or enquiries directed to them. Some of the participants who used the *e-tutoring* platform appreciated the presence of the e-tutor in their discussions and also the promptness with which the e-tutor responded to their enquiries or questions. They appreciated the manner in which the tutor was encouraging them. In this manner, the transactional distance between the students and the e-tutor was bridged in the sense that teacher–student dialogue was taking place. According to Moore (2007), dialogue is constructive interaction. It is purposeful as happened among participants in this study.

Young (2006:73) agrees with Moore (1993) in emphasising the value of teacher-learner, learner – learner and learner–content interaction by asserting that effective instructors are seen as those who are flexible with students, adapting to the students' various needs and demanding high-quality work while also creating an atmosphere that encourages their students to collaborate and interact with their classmates, their instructor, and the course material." This in brief confirms the value of the presence of the e-tutor in the online learning facility.

There were however, some complaints about e-tutors who were not updating their learning sites and this created a sense of unhappiness and frustration among those participants, as they could not leave that learning site to join the one that was progressing. It appeared the participants wanted some flexibility to move from one group to the other, and this is a position that UNISA could review considering operational bottlenecks and other potential factors.

The above experiences portray a picture containing some of the challenges, which have the potential to be reviewed and considered, and others would be broadly difficult or take long to resolve. It is however possible for UNISA to review and improve on some of them in order to make Online Distance e-Learning (ODeL) a reality. I will elaborate on this matter in Chapter 6 section.

5.3.5 Participants' suggestions for online learning

The data analysed revealed a general satisfaction from participants regarding the online learning project at UNISA. This satisfaction was echoed by participants who used the *e-tutoring* facility and also those who did not. The reasons for those who did not use the *e-tutoring* facility emanated from their experiences with the other online systems such as *myUNISA*, *mylife* email and signature modules.

Among the propositions provided, there were those that were practically possible to implement such as availability of UNISA staff to support students with computer skills training; the provision of a climate for the promotion of learner-learner support because of the evidence which showed that most participants were assisted by their peers; the provision of learner material and pedagogy which would be compatible to the use of a cell phone as evidenced by the participants' indications that they use their cell phone, but that they are not able to learn everything using a cell phones; and finally the regular updating of *e-tutoring* learning facility by e-tutors so that the groups do not fall behind from other groups.

All the participants advocated for the comprehensive rollout of online learning to all modules in UNISA. These views ran counter to the general perception prevailing among some SRC aligned students who are against online learning, and indicated that with the careful consideration of various factors affecting students, *e-tutoring* could be adequately used by all UNISA students.

The propositions that would be beyond UNISA's control were such as the weak Internet coverage in rural areas, participants' financial constrains regarding the purchase of data bundles and computers or laptops; and poorly resourced rural areas. These propositions would need collaborations with external private providers and might take long to accomplish.

5.4 SYNTHESIS

This study revealed some pointers, which shed some light on factors, and experiences that could be contributing to the inadequate usage of online learning facilities, most particularly the *e-tutoring* facility.

The first revealing point was relating to the participants' familiarity with the *e-tutoring* facility. It points to the fact that even though some participants received notifications regarding the *e-tutoring* facility, they did not use it as they were not aware of its essence and why them. Some participants

viewed it as some UNISA information directed to some senior students and others simply saw it as part of a series and multiple sms' that are frequently sent to them by the University. The other group of participants that was aware of it simply ignored it and did not participate while some insignificant number participated in the sessions. This points out to the fact that most students at UNISA were not familiar with the *e-tutoring* facility.

A need to orientate the students with *e-tutoring* and its usage seems to be a necessary programme prior to the start of the tutorial sessions in order to ensure that the facility is better understood and adequately used by all students linked to e-tutors.

The second revealing pointer is relating to the usability of devices such as the cell phone. It is recorded in various research articles that cell phones can be used for learning online. The majority of participants indicated the unsuitability of the cell phones for learning purposes, even though they used the cell phones predominantly for certain academic and administrative activities. However, the emergent point in this study was the successful usage of a cell phone by one participant who did not supplement its usage with either a laptop or computer. It appears that it is dependent on the skills level of the students or that the participant had no other alternative. Therefore, what emerges in this study is that cell phones can be used with the combined usage of a computer or laptop by many students for certain learning practices, as we saw it being practised by many participants in this study , but teachers should not be oblivious of the nature of the content suitable for cell phone usage, as cell phones have very small screens, display mono-colour, have a limited processing and memory capacity and also limited input facilities (Chen & Kinshuk in Mayisela, 2013).

The third revealing factor was the infrastructural limitations participants find themselves faced with in rural areas. These are beyond the university's capacity to resolve. In some areas, there is weak broadband and the Internet is limited in terms of its availability at certain suitable areas. The availability of Internet cafés and community centres in some areas do not provide an added advantage as they have few computers and the staff are not skilled enough to be able to assist struggling users to access the online learning facilities or conduct certain online learning activities. The communities also experience poverty and purchasing expensive data bundles becomes a challenge. In this case, students would not be able to be online as regularly and prolonged as the urban students.

Fourthly, almost all participants appreciated online learning as they regarded it as beneficial for rural students who would not be able to regularly visit the university campuses for study purposes. This is evidenced in the participants' evaluation and suggestions for the promotion of online learning. The participants called for some expanded support in the form of partnerships with private Internet providers and free Wi-Fi for rural students. They would also appreciate the inclusion of all modules in online platforms.

The fifth factor that emerged was the concern relating to computer-based support programmes that almost all participants were not aware of and did not attend. The most popular support that emerged was learner–learner support that almost all participants used. The evidence points to the fact that they enjoyed and preferred this kind of support as almost all participants experienced it. The evidence also shows that the participants' non-attendance of UNISA computer support programmes was not deliberate, but was because of their being unaware of their availability for rural students. In addition, the participants did not use the UNISA staff to learn certain online learning skills in these rural areas.

Lastly, the findings from the data pointed to the participants' satisfactory knowledge of computers and Internet usage. They could download documents from the Internet and save them on computer; they could type and submit assignments online and they all had UNISA email addresses which they used for communication within the university. Almost all participants accessed the Internet for a certain number of hours per week, although this was not equal to the universal standards of Internet access duration per week. The various reasons they used the Internet and computers provided evidence that the participants are ready for online learning.

5.5 CONCLUSION

The findings in this chapter provided some evidence that the *e-tutoring* facility is inadequately used by students for learning in comparison to other facilities such as *myUNISA* and mylife email. Both 2015 and 2016 participants utilised *myUNISA* and *mylife* email adequately, except for *e-tutoring* as reflected in Table 5.2.1.6 above. The evidence that emerged pointed mostly to the lack of understanding the purpose of *e-tutoring* by participants. This could probably be due to amongst other things, the limited support that was provided regarding the use of *e-tutoring*.

As seen through the lens of Moore's theory of transactional distance, it could be desirable for the university not to be oblivious of variables that Moore refers to in order to achieve a successful learning and teaching environment. Hence, it could be of great benefit for the university to heed Ustati and Hassan (2013:293)'s call for the continued teaching and training of students throughout the course on how to utilise the online information provided. With this type of support, online learning has the potential to be adequately used by almost all students registered, be it in the form of vicarious participation or active participation. The next chapter will deal with the conclusions that entail some conclusions, implications, and limitations.

CHAPTER 6

CONCLUSIONS AND IMPLICATIONS

6.1 INTRODUCTION

Orenstein (2015) is of the opinion that rural communities often experience shoddy or unaffordable connectivity due to low bandwidth and the high cost of data bundles. Poverty and infrastructural deficiencies enhance this problem. The National Development Plan (2012) attempted to address these challenges and envisaged the future improvement of Internet connectivity in rural areas. The same sentiments were expressed in the White Paper for Post School Education (2013), calling for the improvement of infrastructural challenges prevalent in rural communities, particularly, Internet connectivity. This identified challenge culminated in the establishment of a commission to investigate the cost of data bundles in South Africa (Merten, 2017).

What prompted me to undertake this study as a researcher was my great concern about continued objections by UNISA's students towards the use of online learning. Since I am a UNISA's employee in the Limpopo region, which is rurally based, I witnessed at numerous student meetings the lack of knowledge of availability and usage of online learning facilities, particularly *e-tutoring*, by students. In some instances, there would be complaints by students to the management that the university and its students are not ready for online learning. In extreme instances, they would insist to be provided with the necessary facilities and tools to access online learning (SRC, 2015). This strongly suggests that there is some degree of resistance towards online learning by students, particularly *e-tutoring*. Furthermore, there is massive body of literature sources available at UNISA that point to the under-utilisation of online learning by students, which might serve as a confirmation to this resistance (Mbatha & Naidoo, 2010).

In the study Moore's Theory of Transactional Distance was used to provide a deeper conceptualisation of the phenomenon, thereby gaining a better understand of it; it was used also with an aim to generate answers to the research question with its subsidiary questions as set in Chapter 1. There was one pertinent question addressed in the study specifically: *How do rural students in the Limpopo region (North – Eastern) experience the online learning support provided by UNISA as an open and distance learning institution?*

In an attempt to generate answers to the question, five subsidiary questions were formulated as follows:

- What does relevant literature reveal regarding rural students' challenges in using online learning?
- What is the context wherein UNISA is currently providing innovative online learning options to its students?
- What are the current challenges experienced by rural UNISA students in accessing online learning services?
- In which respects are rural UNISA students ready or not ready to utilise online learning? and
- What are the possibilities for providing UNISA rural students with opportunities for using online learning services available?

The first question was addressed by generating some theoretical perspectives in Chapter 2 that provided a theoretical framework for the study and linked to the online learning experiences of distance students as reported in literature. A variety of studies conducted by researchers provided more insight into rural students' experiences and challenges; they also provided possibilities for an effective online learning environment (see Chapter 2). The second question was addressed in Chapter 3 where some insights into Open and Distance Learning (ODL) developments and practices internationally and also in the African continent, including South Africa, were provided. The chapter ended with a synopsis of ODL developments at UNISA and its current status and future vision to become an ODeL institution. The last three questions were addressed through an analysis of the data collected as evidenced in Chapter 5 and presented the empirical findings of the study, which were interpreted in relation to the theoretical perspectives in Chapter 2, as well as those findings that were presented in the last part of Chapter 5.

6.2 CONCLUSIONS

Based on the findings from the study as reported in Chapter 5, at least six conclusions emerged regarding students' online learning experiences and contributing factors that led to some inadequate usage of online learning facilities.

The first conclusion arrived at is that it seems vital to familiarise students with the online facility which will be used in their learning process. Facilities such as *myUNISA*, *mylife* and *e-tutoring* are the online platforms specifically designed for students to use for online learning purposes, with e-tutor as the nexus for online learning. Most of the participants in the study did not establish proper contact with the e-tutor facility. Some knew about it, but did not use it, whilst others did not know about the e-tutor site (see Fig. 5.2.1.1 & Fig. 5.2.1.2, Chapter 5). It therefore seems vital that all students enrolled for online modules should be orientated about the online learning facility they will be using. The Jomo Kenyatta University of Technology in Kenya is but one of those institutions that offers the programme as presented in Chapter 3. In addition, Angelino and Natvig (2009:8) support this type of intervention by emphasising that at least two weeks before the beginning of the semester, "students need to know the date that classes begin, how to contact their instructor, how to logon to the course website, how to navigate the website and how to obtain the course materials". This assertion is furthered evidenced in many studies such as those of DeBourgh (1999), Wheeler (2002), Ustati and Hassan (2013), Travers (2016) and several others. In view of the distance rural students' experience, such a programme would benefit remote students as they "expect a great deal more from their instructors than their local peers in terms of social and practical support" (Wheeler, 2002:425) and this could help reduce the transactional distance they experience.

The second conclusion that could be drawn from the data is that as much as students need to be orientated about the learning site before the start of the tutorial, the suitability of the devices for online learning activities requires greater attention. The case in point is the use of cell phones that were found to be commonly used by participants in this study (see Table 5.2.1.4, Chapter 5). Their effective use for learning purposes may require some attention. While Makoe (2012) and Chaka (2012) support this point and argue that cell phones are a viable tool to help mostly rural students to learn online, however, Mayisela (2013) and Viljoen et.al (2006) caution that the use of cell phones should be used thoughtfully for learning purposes as not all content will be usable in such a mode. The argument put forward by most researchers affirms the viability of cell phones for online learning, but the content of the information used may need to be thoughtfully graded and selected to ensure compatibility for the devices used.

The third conclusion drawn based on the data, which were generated, is that the rural areas are not conducive for online learning per se. The infrastructural challenges such as low and weak bandwidth and the unavailability of other resources such as community centres and Internet cafés constitute the lack of infrastructural support. This became evident in Chapter 5 (see Table 5.2.1.1; sub-sections 5.2.2.6.2 & 5.2.2.6.3, Chapter 5) in which participants travelled long distances to access the Internet, had to relocate to areas nearer to UNISA campuses or had to bear the high costs of data bundles. Consequently, online learning users would not be able to use online learning facilities as urban users do. In spite of these challenges, however, Table 5.2.1.9 in Chapter 5 indicates that participants did not experience a lack of opportunity to access online learning facilities. They accessed the facilities two to three times a week on average. In comparison with the global standard satisfaction level of 21 hours per week Internet usage, their usage of the Internet could not be regarded as unsatisfactory compared to the infrastructural challenges they are faced with. It can therefore be concluded that the expectations UNISA has for online learning usage should be considered in accordance with the infrastructural landscape where the majority of the students come from.

As a fourth conclusion: As much as UNISA strives to provide support to both rural and local students, most of the rural students are not aware of those programmes and have not attended them. As reflected in Theme 5 (see section 5.2.2.5, Chapter 5) only two students attended the support programmes and the others, almost 80% did not attend such programmes. The UNISA Limpopo region mostly markets the events through the use of sms' and some participants complained about the proliferation of sms' they receive from UNISA as one of the reasons for their being unaware of and eventually not attending the programmes. They indicated that they end up either ignoring such messages or deleting them. It therefore seems that this proliferation of sms' is what led to more than 50% of participants indicating that they were not aware and had not heard of these support programmes, while those who were aware of the service did not make use of it at all (see section 5.2.2.5, Chapter 5). In the light of this experience, it could be concluded that the marketing strategy of support programmes by Unisa may require to be re-visited so that invitations effectively reach all the students.

The fifth conclusion: Online learning does not seem to pose a problem for students in UNISA. The main area for concern however was the cost to access the Internet and availability of suitable

devices. The frequency with which participants accessed online learning facilities, the reasons for using the Internet and comments from some of the participants who used or simply accessed *e-tutoring* indicated that the participants would generally not have problems with online learning (see section 5.2.2.3.1, Chapter 5.) All participants indicated that they appreciate online learning and would not like it to be discontinued. That being the case, it may be necessary for UNISA to provide a learning environment, which would take into cognisance the situational conditions of all students - particularly its rural students. It may thus be necessary to have a project which would have a focus on the support of rural students for online learning support initiatives and that these "interventions be informed by a skills audit that will map out the capabilities and gift zones" of users (Ncube, Dube & Ngulube, 2014:364). In the case of this study, it would mean an audit of the needs of all online students before their first online tutorial class.

Finally, one might conclude that the students who were surveyed do not have a problem with computer literacy. They are able to download documents, save them, submit assignments online and also use the Internet (see Fig. 5.2.1.4, Chapter 5). Their skills in computer usage are thus indicative of their readiness for computer usage. In many literature sources students' technical skills are often cited as one barrier to online learning, although on a lesser scale (Burton & Goldsmit, 2012; Ustati & Hassan, 2013; Travers, 2016; DeBrourgh, 1999; Song et al., 2004). This study confirmed this finding and those who reported having some technical challenges indicated, similarly to what DeBourgh (1999:6) had pointed out, that they "overcame the technological barriers with the passage of time and through consultations with other students." As cited by Baijnath (2013:6), it can be concluded that this kind of performance by students has the potential to "pave a new pathway for UNISA's future online teaching and learning initiatives."

The conclusions drawn from the study, as highlighted above, pointed towards a number of implications that are discussed below.

6.3 IMPLICATIONS OF THE STUDY

The findings and conclusions, which emerged from this study, may help guide the process of developing new improved initiatives for online learning in UNISA. The implications under discussion are framed around the three pillars, which are: implications for theory, implications for practice and implications for future research.

6.3.1 Implications for theory

The theoretical perspectives discussed in Chapter 2 formed the hallmark of this study which culminated in a justification of Moore's theory of transactional distance as the basis of most distance education theories. The theories of Holmberg, Peters and Garrison et al. as discussed in Chapter 2 confirmed the challenge of distance as discussed by Moore (1993) and one could argue that without eradicating 'distance' in distance education, learning will be difficult to accomplish as a transaction. This includes the learning transactions between teacher and students, students and other students, as well as the students and the learning content or material.

In the light of the above argument the findings and conclusions reached provided some insight into the value of relationship formation between teacher-student, student-student and student-content which are finally determined by the degree that dialogue would take place, the nature of learning content (e.g. content structure) and the characteristics of the student (e.g. student autonomy). The degree to which these variables occur can be impinged by the constraining factors of suitable devices, access to the Internet and several other factors that were highlighted in the study. Addressing these factors from a theoretical perspective within distance learning could help to better understand and facilitate the more effective usage of all online learning facilities.

Similar to other studies conducted using Moore's theory of transactional distance; this study provided the space to pay closer attention to the variables as elicited in the transactional distance theory. It may be close to impossible for learning to take place where there is no dialogue and the learning content is highly structured without considering the level of autonomy to which students aspire. Moore's theory provides for the need to better understand the students' needs and characteristics so that the learning environment created could mediate the transactional distance that is always present in ODL and ODeL environments. Accordingly, applying the theory may help bring about new practices as, for instance, remedial actions that may facilitate the reduction of transactional distance.

6.3.2 Implications for practice

The findings and conclusions in this study may have a bearing on reviewing some of the online learning practices employed in UNISA and particularly in the UNISA Limpopo region. This includes the manner in which students are introduced to online learning facilities and particularly to the e-

tutor facility, the rural outreach computer training support programmes as well as accelerating the use of cell phones for online learning as propagated by various researchers (also see Chapter 2). Such practices may be addressed in conjunction with others, which include the improved and more effective use of community centres and other practices as pointed out next.

6.3.2.1 Suitability of devices

Implications for the suitability of devices point to the fact that not all learning material can be used equally well on all devices. In this study, participants used cell phones in combination with other devices such as computers, laptops or tablets. Cell phones were not used in isolation. This implies that certain devices are usable for certain learning material and not for others. The issue at hand is the use of cell phones for learning purposes as all participants used them and reported favourably about their usability. The use of cell phones is a convenient means for accessing learning anywhere, anytime. Almost all students currently own a cell phone and even in daily life, most people depend on cell phones to perform simple tasks. This issue is addressed pertinently in literature by researchers such as Lebraud, Pandit and Seetharaman (2012) and during a visit to China in 2017 I personally witnessed Chinese citizens using cell phones to learn to speak English or for translation purposes. This is an indication that cell phones have the potential to transform and facilitate learning if the pedagogy compatible to them is effectively applied.

As reflected in Table 5.2.1.4 (Chapter 5), only one participant had a home computer and five participants used a laptop. This is a further indication that it is unlikely that most UNISA students would have laptops or computers for their own use. Cell phones thus become the tool that is mostly accessible to all students irrespective of their socio-economic status. It would therefore be imperative to explore the improved and appropriate use of cell phones for teaching and learning or for teaching and learning support purposes.

6.3.2.2 Student preparation for online learning

The findings in this study revealed that few students are using the e-tutor facility and yet they were using other online learning facilities such as *myUNISA*. There were various factors that indicated to their lack of usage of the e-tutor facility, some of which were; having not received the notice about the facility, lack of prior knowledge about the purpose of the facility, technical know-how about accessing and using the facility and the proliferation of sms notifications that confused them. This evidence implies that the current system of promoting *e-tutoring* may not be sufficient for

raising awareness and usage of *e-tutoring*. The current practice of sending sms notifications and information sheets on how to use *e-tutoring* may need to be backed-up with other support initiatives as stated by DeBourough (1999) and Travers (2016) that students need face to face interaction at the initial stage of online learning, and they also need continual training and teaching about the learning site. The practice at the Jomo Kenyatta University of Technology is a case in point that UNISA could emulate.

6.3.2.3 Technology development programmes for rural students

The majority of participants were not aware of and did not attend the technology support training programmes initiated by the Limpopo region. This implies that attendance of such trainings in rural areas might be poor in general. It is imperative that students learn additional uses of these devices for learning by attending such development programmes. Participant 15S3, for instance, asked pertinently whether all students are aware of these programmes. A cursory check of the actual student attendance of the outreach technology support training programmes currently conducted in Limpopo region revealed that few students attended the programmes as planned in some far-flung areas. It therefore implies that if training is allowed to continue in this form, many students who need the training may be left out.

Therefore, key here is that student development programmes on technology uses for all students, particularly those who reside in the far rural areas, may need to be accorded sufficient and continuous publicity and review. The same may apply to community centres that collaborated with UNISA so that students know where they are located and find value in using them.

6.3.3 IMPLICATIONS FOR FURTHER STUDY

Firstly, this study revealed the potential for further studies into the full usage of *e-tutoring* and all other online learning facilities by all UNISA students irrespective of locality. Further investigations of how to address external factors as pointed out in the White Paper for Post School Education (2013), namely collaborating with community centres and the Department for Communications to ease the challenges on Internet access could alleviate the problem.

Secondly, the role of the teacher as a course designer may be another area for inquiry since some subject content might not be readily usable on certain devices. E-tutors and programme designers may have to review the structure of their learning material so that technologies used may be

compatible to the teaching and learning content. This implies that instructional re-design and delivery of teaching and learning content may need to be further investigated and developed to promote the full potential of usage of some devices such as cell phone in a transactional learning environment. More such studies, in the UNISA context, might reveal innovative possibilities with the potential to address existing gaps in learner-content transactional distance.

Lastly, it may also be necessary to inquire further into the provision of digital support for rural students that was found to be ineffective, as students do not popularly use it. In this case, further research for new knowledge regarding strong, tailor-made and focussed student development technology support for rural students in particular may be necessary.

6.4 LIMITATIONS OF THE STUDY

This study was limited to first year Criminal Law students who reside in the rural Limpopo area. As the study made use of qualitative data, the sample selection was limited to twelve participants, which may not be a sufficiently representative sample to ensure transferability of the results to other regions. The aim, however, was not to generalise but to better understand the constraints and challenges experienced by a selected group of students in a rural setting. The other limitation could be that only two data collection sites were selected for the study. In spite of these limitations, the findings may assist to better understand and cater for the needs of students in the UNISA Limpopo setting and serve as a sample benchmark study for researchers in other regions with similar geographical settings.

6.5 CONCLUSION

An inviting environment in the form of support provision for all students, including those marginalized in the far rural areas, has the potential to reduce transactional distance. The learning content adaptable for commonly used devices such as cell phones, and the changing of students' attitudes towards cell phone suitability for learning, could help improve the utilisation of *e-tutoring*. Notwithstanding the need for continual teaching and training of students about the learning facility they use, the human face of the e-tutors before the start of a tutorial session may be an added advantage to the improvement of e-tutor usage. In a university such as UNISA, the students' high school and community experiences and exposures need to be taken into consideration when enrolling students for online modules as some students are first generation participants in higher

education, come from relatively poor backgrounds and computers are not commonly available for use.

In conclusion, it is cautioned by various researchers (Brindley and Paul, 1996; DeBourough, 1999; Viljoen et al., 2006; Makoe, 2012; Mayisela, 2016) that technology in teaching and learning should not take precedence. It should be the students' learning and the pedagogy first, but effectively and efficiently supported by technology to narrow the gaps as indicated by transactional distance. In this way, online learning might be better able to take into consideration the needs of all UNISA students and may potentially find acceptance and usability by all students irrespective of locality.

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Approved with Stipulations
New Application

06-May-2016

Rakoma, Mpho MA

Copyright

Matieland

Proposal #: SCopyright

Title:Rural students' experiences of online learning support in an Open Distance Learning environment

Dear Mr Mpho Rakoma,

Your **New Application** received on **13-Apr-2016**, was reviewed

Please note the following information about your approved research proposal:

Proposal Approval Period: **28-Apr-2016** -**27-Apr-2017**

The following stipulations are relevant to the approval of your project and must be adhered to:

1) The researcher is reminded that copies of ethical clearance from UNISA as well as permission from the school of law should be forwarded to the REC for recordkeeping once obtained.
2). Collection of data should only commence once said ethical clearance and permission has been obtained.

Please provide a letter of response to all the points raised IN ADDITION to HIGHLIGHTING or using the TRACK CHANGES function to indicate ALL the corrections/amendments of ALL DOCUMENTS clearly in order to allow rapid scrutiny and appraisal.

Please take note of the general Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

Please remember to use your **proposal number** Copyright) on any documents or correspondence with the REC concerning your research proposal.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Also note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required. The Committee will then consider the continuation of the project for a further year (if necessary).

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) registration number Copyright

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at Copyright

Included Documents:

DESC Report

DESC Report 1

REC: Humanities New Application

Sincerely,

Copyright

REC Coordinator

Research Ethics Committee: Human Research (Humanities)

Investigator Responsibilities

Protection of Human Research Participants

Some of the general responsibilities investigators have when conducting research involving human participants are listed below:

1. Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.

2. Participant Enrollment. You may not recruit or enroll participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use. If you need to recruit more participants than was noted in your REC approval letter, you must submit an amendment requesting an increase in the number of participants.

3. Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the REC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the

signed informed consent documents. Keep the originals in your secured research files for at least five (5) years.

4. Continuing Review. The REC must review and approve all REC-approved research proposals at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period.** Prior to the date on which the REC approval of the research expires, **it is your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in REC approval does not occur.** If REC approval of your research lapses, you must stop new participant enrollment, and contact the REC office immediately.

5. Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.

6. Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research related injuries, occurring at this institution or at other performance sites must be reported to Malene Fouch within **five**

(5) days of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the RECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch Universtiy Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.

7. Research Record Keeping. You must keep the following research related records, at a minimum, in a secure location for a minimum of five years: the REC approved research proposal and all amendments; all informed consent

documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC

8. Provision of Counselling or emergency support. When a dedicated counsellor or psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.

9. Final reports. When you have completed (no further participant enrollment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the REC.

10. On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending

UNISA university of south africa

UNISA RESEARCH AND INNOVATION ETHICS REVIEW COMMITTEE

29 June 2016

Ref #: Copyright

Mr. Mpho Rakoma

Student #:

Staff #: Copyright

Dear Mr. Mpho Rakoma

Decision: Ethics Approval for the duration of the project.

Name: Mr. Mpho Rakoma

Tuition and Facilitation of Learning Unisa Seshego, Limpopo

Copyright

Supervisor: Prof E. M. Bitzer

Copyright

Proposal: Rural students' experiences of online learning support in an Open Distance Learning environment.

2297

Qualification: M degree.

Thank you for the application for research ethics clearance by the Unisa Research and Innovation Ethics Review Committee (URIERC) for the above mentioned research. Final approval is granted for the duration of the project with conditions.

*The **low risk application** was **expedited** by the University of South Africa Research and Innovation Ethics Review Committee (URIERC) in compliance with the Unisa Policy on Research Ethics on 9 June 2016. The decision will be tabled at the next URIERC meeting on 28 July 2016 for ratification.*

The proposed research may now commence with the provisions that:

1. The researcher will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

2 Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the UNISA Research and Innovation Ethics Review Committee. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.

3 The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.

4 Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.

Note:

The reference number [redacted] *should be clearly indicated on all forms of communication with the intended research participants, as well as with the URIERC.*

Kind regards,

Dr Copyright **(pp. Prof** Copyright **– Chairperson: URIERC)**

E-mail:

Copyright C

p

Approval template 2014

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UNISA university of south africa

RESEARCH PERMISSION SUB-COMMITTEE OF THE SENATE RESEARCH, INNOVATION, POSTGRADUATE DEGREES AND COMMERCIALISATION COMMITTEE (SRIPCC)

8 September 2016

Ref #: Copyright

Mr. Mpho Allan Rakoma

Staff Copyright

Dear Mr. Mpho Allan Rakoma,

Decision: Research Permission Approval from September 2016 until 31 October 2016.

Principal Investigator:

Mr. Mpho Allan Rakoma

Tuition and Facilitation of Learning
Limpopo Regional Centre

UNISA

Copyright

Supervisor: Prof. E. M. Bitzer

Copyright

A study titled: Rural students' experiences of online learning support in an Open Distance Learning environment.

Your application regarding permission to conduct research involving UNISA students and data in respect of the above study has been received and was considered by the Research Permission Subcommittee (RPSC) of the UNISA Senate Research, Innovation, Postgraduate Degrees and Commercialisation Committee (SRIPCC) on 25 August 2016.

It is my pleasure to inform you that permission has been granted for the study. You may:

1. Gain access to the *Mylife* email addresses of the students registered for the CRW1501 module from the College of Law (CLAW) in 2015 and 2016, who reside in the Copyr and Copyright regions of Limpopo through the gatekeeping assistance of the College of Law. Access to the students should be obtained through the assistance of a relevant gatekeeper such as a lecturer responsible for the module. Please note that the list

cannot be made available to you in your capacity as a student.

2. You may invite students to participate voluntarily in individual interviews and focus group discussions as set out in your application.
3. In keeping with the requirements of the Protection of Personal Information Act No. 4 of 2013, the Research Permissions Subcommittee (RPSC) does not approve your request for access to the students' personal telephone numbers as requested in the application. The RPSC recommends that you request this information directly from the students via their *MyLife* email addresses.
4. The committee would like to bring it to the attention of the researcher that Unisa is an Open Distance and Electronic Learning (ODeL) institution and not an Open Distance Learning (ODL) as was referred to by the researcher in the application documents.

You are requested to submit a report of the study to the Research Permission Subcommittee (RPSC@unisa.ac.za) within 12 months of completion of the study.

The personal information made available to the researcher(s)/gatekeeper(s) will only be used for the advancement of this research project as indicated and for the purpose as described in this permission letter. The researcher(s)/gatekeeper(s) must take all appropriate precautionary measures to protect the personal information given to him/her/them in good faith and it must not be passed on to third parties.

Note: The reference number Copyright *should be clearly indicated on all forms of communication with the intended research participants and the Research Permission Subcommittee.*

We would like to wish you well in your research undertaking.

Kind regards,

Copyright

pp. **Dr** Copyright **Deputy Chairperson: RPSC**

Prof Copyright **– Chairperson: RPSC**

Email:

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

Qualitative data analysis

Master of Philosophy in Education

Rakoma M

THIS IS TO CERTIFY THAT:

Prof. [redacted] Mothiba has co-coded the following qualitative data:

Unstructured one-to-one interviews

For the study:

Students' experiences of online support in an Open Distance Learning (ODL) environment in Limpopo region of the University of South Africa

I declare that the candidate and I have reached consensus on the major themes reflected by the data during a consensus discussion meeting. I further declare that adequate data saturation was achieved as evidenced by repeating themes.

Prof TM Mothiba

[redacted]

TM Mothiba (PhD)

CODING REPORT

FOR: Rakoma M

DATE: 2017-05-10

STUDY: **Rural students' experiences of online learning support in an Open Distance Learning (ODL) environment.**

INDEPENDENT CODING BY: Prof TM Mothiba

Method: **8 Steps of Tesch's inductive, descriptive open coding technique** Creswell (2014) was used by following the steps below:

Step 1–Reading through the data

The researcher got a sense of the whole data by reading all the verbatim transcriptions carefully. This gave ideas about the data segments and how they look like and the possible meaning. The meaning and all ideas as that came to mind that emerged during the reading process were written down. The researcher carefully and repeatedly read the transcripts of all the participants in order to understand.

An uninterrupted period of time to digest and think about the data in totality was created. The researcher engaged in data analysis and wrote notes and impressions as they came to mind.

Step 2 – Reduction of the collected

The researcher scaled down the data collected to codes based on the existence and/ or frequency of concepts used in the verbatim transcriptions. The researcher then listed all topics that emerged during the scaling down and subsequently grouped similar topics together, and those that did not

have association were clustered separately. Notes were written on margins and the researcher started recording thoughts about the data on the margins of the paper where the verbatim transcripts appeared.

Step 3 – Asking questions about the meaning of the collected data

The researcher read through the transcriptions again and analysed them. This time around, the researcher asked - questions about the transcriptions of the interview, based on the codes (mental picture codes when reading through) which existed from the frequency of the concepts. The questions were “Which words describe it?” “What is this about?” and “What is the underlying meaning?”

Step 4 – Abbreviation of topics to codes

The researcher started to abbreviate the topics that have emerged as codes. These codes needed to be written next to the appropriate segments of the transcription. Differentiation of the codes by including all meaningful instances of a specific code’s data was done. All these codes were written on the margins of the paper against the data they represented with a different colour pen used in Step 3 above.

Step 5 – Development of themes and sub-themes

The researcher developed themes and sub-themes from coded data and the associated texts and reduced the total list by grouping topics that related to one another to create meaning of the themes and sub-themes.

Step 6 – Compare the codes, topics and themes for duplication

The researcher in this step reworked from the beginning to check the work for duplication and to refine codes, topics and themes where necessary. Using the list of all codes, checked for duplication. The researcher grouped similar codes and recoded others where necessary so that they fit in the description.

Table 1: Themes and sub-themes reflecting the students' experiences

Main themes	Sub-themes
1. Dominant stories related to registered students' experiences (Student readiness) (Students' experiences on Internet and e-learning facilities)	1.1 Existing internet and e-learning facilities utilised 1.2 Internet and e-learning utilisation rates by students(frequency) 1.3 Internet and e-learning utilisation reasons 1.4 Problems related to utilisation of internet and e-learning facilities 1.5 Devices owned assisting in e-learning and internet access facilities 1.6 Experiences related to use of computers, internet and e-learning facilities
2. Factors influencing access to computer use, internet and e-learning facilities	2.1 Locations and online learning facilities with easy access versus difficult access (the impact of locations on access to facilities 2.2 Electronic gadgets which provide easy access to internet and e-learning facilities. 2.3 Financial constraints as a problem 2.4 Lack of community facilities 2.5 Lack of enough computers at UNISA centres 2.6 Available but expensive internet connection facilities in rural areas
3. Knowledge of students related to the use of computers, internet and e-learning facilities	3.1 Existence versus minimal knowledge related to the use of computers, internet and e-learning facilities (Existence of computer knowledge on students) 3.2 Ineffective notifications leading to lack of knowledge related to some e-learning facilities (Ineffective *e-tutoring* notifications) 3.3 Existing computer knowledge used to guide other students to cope with access to internet and e-learning facilities. (Knowledge gained through UNISA programmes)

	3.4 Knowledge gained from fellow students and staff 3.5 Availability of online tutoring (signature modules) enhances computer literacy for students.(Knowledge gained from available online tutoring)
4. Views of students related to e-learning and internet facilities	4.1 Lack versus utilisation of e-learning facilities by students(Views related to usage of online learning facilities) 4.2 Easy versus difficult access to e-learning facilities by students (Views related to accessibility of online learning facilities) 4.3 Different e-learning facilities recommended by students based on their usefulness (Views related to usefulness of devices for online learning)**.**
5. Existing computer training course at UNISA for students **(**Awareness of online learning support programmes**)** (Support provided by UNISA computer-based training programmes)	5.1 Attendance versus non- attendance of computer training courses 5.2 Appreciation of provision of assistance to students by Computer Laboratory staff 5.3 Availability versus non-availability of computer training courses for students 5.4 Experience gained from computer training courses
6. Difficulties experienced by students for internet and e-learning facilities **(**Challenges that students experience**)**	6.1 Limitations experienced towards internet access (Limited internet access) 6.2 Lack of assistance on computer use 6.3 Difficulties due to lack of training (Lack of training on computer and online learning usage)

	6.4 Lack of internet connection access at times a problem to students learning progress(Lack or weak Internet coverage)
7. Suggestions related to what UNISA could do to assist students (Suggestions related to the potential for improvements)	7.1 Provision of electronic gadgets to needy registered students for easy access to internet and e-learning facilities (Provision of devices for registered students) 7.2 Provision of basic and advanced computer and e-learning methods training to students (Provision of computer-based training programmes) 7.3. Orientation in online learning processes 7.4 Regular visits by students to computer laboratory (Availability of more computers at UNISA) 7.5 Availability of trainers at computer laboratories Wi-Fi usage for easy access to internet by students (Computer lab staff support) 7.6 internet access in rural areas 7.7 Re-vamped *e-tutoring* notifications

Step 7 – Initial grouping of all themes and sub-themes

The data belonging to each theme were assembled in one column and preliminary analysis was performed, which was followed by the meeting between the researcher and co-coder to reach consensus on themes and sub-themes that each one has come up with independently.

Step 8–Recoding if necessary

A necessity to recode emerged as some of the themes reached independently were merged.

Saturation of data was achieved related to the major themes and all sub-themes which are confirmed through identification of more verbatim quotes/excerpts from the transcription provided in the data analysis. Seven themes with their sub-themes emerged.

FACULTY OF EDUCATION

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Interview Plan

Introduction

My name is Mpho Rakoma. I am an MPHIL student at the University of Stellenbosch. I work for the University of South Africa in Limpopo. My work involves the coordination of academic support programmes such as tutorials and academic literacies. I am interested in learning more about student experiences of online learning support in an Open Distance Learning (ODL) environment in the Limpopo region of the University of South Africa. The focus of my interest is with regards to UNISA students who live in rural areas.

During the interview I would like to discuss the following topics with you: 1. Your background knowledge about the use of computers .2. Awareness of online learning support developments in UNISA .3. Student readiness (or not being ready) with regards to usage of online learning options 4. Your *e-tutoring* experience.5. Challenges to access online learning services. 5. Your overall views about online learning support */e-tutoring* support in Unisa, and 6. What you would like to see done with *e-tutoring* support programmes.

This research will not only benefit UNISA but also promote your studies and also my own research. There will not be any monetary benefits for your participation in this study.

The Interview

Biographical information

Name of participant: ----------

Age: ----------

Employment status: ----------

Years of study experience at a distance institution: ----------

Years of study experience at a residential University/FET: ----------

Educational background: ----------

Total family household: ----------

Responsibility at home (e.g. parent/child) ----------

Interview site:----------

Topic 1: **Background knowledge about use of Computers**

Main question	**Additional questions**	**Clarifying questions**
√ As an e-learning student allocated to an e-tutor, what electronic devise do you use for learning?	√ Can you tell me about some possibilities for Internet access? √ Where do you usually go to access to the Internet? √ How often would you travel to the access point? √ When you have Challenges accessing the Internet, how do you obtain help?	√ Where would you access the internet? - If at home, whose network is that? - If at MPCC's (Multi-purpose Centers) or UNISA premises, how far do you travel to the access point?

√ Please tell me about the area where you live with regards to possibilities of using Computers for accessing the Internet for learning.		
√ What is the extent of your knowledge of the use of computers for learning? **Or** √ If the student has no knowledge of computers, then... - What would you do to ensure that you have	√ In order to facilitate your learning, what are the things that you do with computers? √ Can you tell me about the learning site that you use for learning? √ How often do you log into it √ What is your opinion about that learning site? **Or** If the student does not have a computer or access to a computer, - what do you use to access the learning site?	√ What about Information search? √ What about discussions with other learners? √ What about submission of Assignments? How usable is this learning site?

some knowledge of computer use? **and** - What would you suggest UNISA do to ensure that you have some applicable knowledge?		
Topic 2		
Awareness of online learning support developments in UNISA		
√ Describe the online support programmes you are aware of in UNISA which are used to assist students with skills/knowledge to use online services	√ Could you tell me about those that you use/used? √ What were the benefits? √ What was your experience when you used them? √ Which ones would you recommend to a fellow student? √ What would you say is missing with regards to the support programmes available? √ Can you also tell me about the training programmes	I mean training programmes and various support initiatives Eg. √ Computer Based Training? √ Computer Labs? √ Signature modules? √ Mobile Bus services? √ Provision of Wi-Fi? √ MPCC's? √ 3G partnership? √ E-tutor appointments? √ E-tutor Road shows? If not able to attend them, what would you say are the

	that UNISA Limpopo is providing? - Are you usually able to attend them? - What is your opinion about them? - Please explain to me how you felt after attending these programmes. - How would you like to see them rolled-out?	causes of your non-attendance?
Topic 3		
Student readiness or unreadiness with regards to usage of online learning options		
√ Describe the things you enjoy doing with technology and the web each week.	√ Please describe for me the devices that you use √ How much time on average do you spend each week Online? √ How do you feel when working online? √ Is there anything that bothers you about being Online?	When? – time of the day. - Why that time?
Topic 4		

The challenges that students experience to access online services		
√ What challenges would you say students face with regards to online learning support?	√ What about access? √ What about availability of information regarding Internet access? √ What about your personal confidence? √ Would there be other challenges besides these?	√ Access with regards to - Money, tools, distance √ Knowledge with regards to - Internet, search engines. √ Confidence with regards to - Fear, shyness, discouragement.
√ What is your experience of e- tutoring: Describe from the time you knew that you had an e-tutor until today?	√ How were you notified? √ What did you do about the Information? √ What was your understanding of an e-tutor? √ How often do you use the e- tutor platform? √ What did you do about the challenges you came across?	
√ What would you say helps students to persevere in spite of the challenges, or drop out because of the challenges?	√ Generally, how do you view e- tutoring for your learning?	
Topic 5		
Possibilities to provide for optimum opportunities for student usage of online learning options		
√ Finally, tell me about your		

views regarding online learning support in Unisa. √ If you were to write a letter to the Vice – Principal, what would you say about Online learning support? **I summarize what we discussed in the interview**. **Is there still something that you would like to add that could have come to your mind as we were discussing?** **Thank you for participating. The findings will be shared with UNISA Limpopo by way of a thesis and where feasible, some of them will be implemented.**		What would you propose?

Guideline on format from: http//www.crpspc.qc.ca/default_an.asp?fiecher=outils_diagnostic_an.htm

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FACULTY OF EDUCATION

Briefing Letter

Ref: Copyright

The informed consent briefing is for UNISA students allocated to e-tutors for Law modules in 2015 and 2016 respectively. The students should be based in Limpopo Province, at either Copyright. The students are invited to participate in a research titled: **Rural students' experiences of online learning support in an Open Distance Learning environment.**

Who am I?

My name is Mpho Rakoma. I am doing a Master degree at the University of Stellenbosch. I am currently doing research among rural UNISA *e-tutoring* students in the College of Law. I work for Unisa in the Department of Tuition and Facilitation of Learning: Tutorial support, at Polokwane Learning Centre. My work involves the coordination of academic learning support programmes such as tutorials and academic literacies. My research study is about the experiences of UNISA rural students on the use of online learning platforms,

most particularly *e-tutoring*. I invite you to be part of this research study. You are free to decline my invitation, and if you accept and later realize that you would like to withdraw, you will be free to withdraw from this study at any stage. I am also available to clarify you on any matters that you would need more information about before the start of this research study. I would like to find out what your experiences are concerning the use of online learning platforms like e-tutors to support your learning.

Purpose of the research

E-tutors generally indicate that students allocated to them do not participate in the discussions, which they always post on their tutor sites. These tutors allege that most students appear to be "computer shy" or are not skilled in the use of computers and the internet. Most of the research studies conducted in UNISA about online learning concentrated mostly on urban tutors and students. It is therefore the purpose of this study to investigate the online learning experiences of rural students regarding its use, particularly *e-tutoring*. To understand your experiences, I would have to look at the following issues:

- your awareness of the efforts that Unisa is putting into online learning;
- determine the extent to which you are ready or not ready to use online learning platforms;
- determine the challenges that you experience to access online learning services and also
- explore the possibilities where opportunities could be created to optimise opportunities for the use of Unisa online services

Type of research intervention

This research will involve your participation in an interview session. You will be interviewed at a place convenient to you. The interview will take place between you and the researcher, which will be myself. The interview will take approximately 50 – 60 minutes. A tape recorder (digital voice recorder) will be used to capture the information you provide so that we do not miss any

information. This recorded information will later be transcribed into text and shared with you for correctness before I proceed with analysis.

Participant selection

I have selected you from a list of students who are linked to an e-tutor and who reside in the rural areas of Limpopo Province, either in the Giyani area or the Lephalale area. The reason for selecting you is on the basis that you will be in a position to provide rich information about online learning because of your being on an *e-tutoring* programme, which is the subject of my study. My selection is based on your geographic area of origin and the year of your enrolment for *e-tutoring*, which would be either 2015 or 2016 academic years. Age, gender and race do not form part of my selection. I am selecting twelve students to participate in this study. Amongst your group selected, half the number of you will be those who started the *e-tutoring* programme in 2015 and the other half would be those linked to e-tutors in 2016.

Voluntary participation

Your participation in this research study is voluntary. You are not forced to take part in this study. Your participation or non-participation will not at a later stage cause you to be prejudiced in whatever form. When in the interview, you will also be free to withdraw at any time if you feel you do not want to proceed with the research.

Benefits

There will be no direct benefits to you regarding this research. The findings from this study will result in a report, which I will share with Unisa and University of Stellenbosch. These findings might help Unisa and other universities to bring improvements to their online learning platforms. In this context, you will have contributed to the improvement of the online learning support in UNISA and at other Universities worldwide.

Reimbursements

There will not be any payments for your participation in this study. You will not incur any expenses regarding this research study. I will visit you at your village to conduct the interviews or arrange a convenient venue for our meeting..

Procedures of the interviews

The interview will follow the following format:

We will start with introductions about ourselves; where you attended your high school education; what your experience was like at that high school and your family background. The purpose is to make sure that we are comfortable with one another. I will ask you questions about your knowledge of UNISA online learning initiatives or projects that aim to help students with access to computers; How competent you are regarding the use of computers for learning; What challenges you come across to access computers and online services; and what your experiences are about the *e-tutoring* support you engage. Finally, I would provide you with an opportunity to tell me your views about the *e-tutoring* programme at UNISA, the likes and dislikes and what you think could be done to improve it.

Confidentiality

I will not share the information you provide with anyone, except my research supervisor who is at the University of Stellenbosch. Your identity will also not be shared with any person. Your identity will be in the form of an 'code' (pseudonym) instead of your name. Your interview transcripts will be stored safely in a Password protected folder of my computer. No person will be able to access it except myself. All the data collected from you will be destroyed shortly after I shall have analysed them and written a report. The other data in the hands of the University of Stellenbosch will be left safely under the care of the University for possible future use by other researchers.

Ethics requirements

This research is governed by the all research ethics applicable in the University of Stellenbosch and UNISA. The code of ethics requires that you should only participate in this study voluntarily, and that if this study is likely to cause any harm to you, it should be made clear before you consent to participate. Finally, that your privacy should be respected at all times. Both the Universities of Stellenbosch and UNISA have granted me the permission to conduct this research. The reference number above serves as proof of the approval and permission granted.

Whom to contact

You should feel free to ask me any questions at any time of this research study. If you wish to ask any questions later, you may contact me or my supervisor at the following addresses:

Full names: Mpho Allan Rakoma (Researcher)

Work address; Copyright

Work telephone number: Copyright

Cell phone: Copyright

Email: Copyright

Or

Names: Prof E.M. Bitzer (supervisor)

Stellenbosch University

Tel: Copyright

Email: Copyright

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CONSENT TO PARTICIPATE IN RESEARCH

TITLE OF STUDY

Ref: Copyright

Rural students' experiences of online learning support in an Open Distance Learning environment.

You are asked to participate in a research study conducted by ***Mpho Allan Rakoma***, from the Curriculum studies D*epartment* at Stellenbosch University. The *results will be contributed to a thesis.* You were selected as a possible participant in this study because you are one of those students who are linked to an e-tutor and your place of residence is in a rural area in Limpopo Province.

1. PURPOSE OF THE STUDY

The study I am conducting aims to determine the reported experiences of UNISA rural students in the usage of e-Learning support services available in the Limpopo Region of UNISA. Participation in this study will not result in UNISA providing technology devises to students for accessing e-learning. Importantly, this study will assist UNISA to understand the challenges that rural students face when accessing e-Learning.

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

2.1. Pre-orientation for participation.

I will request you to attend a briefing meeting with me at the place of your convenience. The purpose is to introduce you to the nature of your participation and the procedure we will follow.

You will be provided with a consent briefing letter which describes the process we will follow. You will be expected to understand the procedures described.

I will explain all topics on the briefing letter so that you have a full understanding of what the process will entail. This will help you to make an informed decision regarding your participation or non-participation. In brief, your participation is voluntary.

2.2. Participation process

The study will take the form of individual interviews. The interviews will last for the duration of one and half hour (1:30). The interview will be in the form of a conversation between the two of us.

A tape recorder will be used to record of information you provide. This information will later be written down and a copy given to you to confirm if the information captured is correct.

I will arrange with you in advance the date, time and venue for our interview at your village and you will be free to re-arrange for your own convenience.

3. POTENTIAL RISKS AND DISCOMFORTS

The Interviews will take place between the two of us in a conversational manner. Where you feel uncomfortable about a certain question you will be free to refuse to respond to that question. The information you provide will not be shared with any person. I will not in any manner change the information you provide to suit my situation. I will after the interview provide you with a written copy to confirm with you the correctness of the information. You should feel free to express your feelings.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

There is no direct benefit for your participation in this study. This study will however indirectly benefit you by way of you having contributed to helping UNISA to understand the experiences and challenges students who live in rural areas face.

5. PAYMENT FOR PARTICIPATION

There will be no payment for participation in the study. Participation is on a voluntary basis

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of keeping your name and all other personal details private from any person. Names other than your real names will be used to identify you. Codes will be used in the place of your names. The information collected from you will be kept safely in my computer and protected by using a password to access it. This information will later be destroyed after finally writing the report about this study. The information in the hands of my supervisor will be left in the custody of the University of Stellenbosch for a period of five years(5yrs) to be used by other researchers where needed.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so. It will be under circumstances of unruly behavior that you could be withdrawn from participating.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Mpho Allan Rakoma: Principal investigator at 0[redacted]; or my supervisor at the University of Stellenbosch, Prof EM Bitzer at [redacted]

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms [redacted] at the Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to *me*……..…….. *the participant,* by *Mr Mpho Allan Rakoma* in *English* and *I am* in command of this language or it was satisfactorily translated to *me*. *I* was given the opportunity to ask questions and these questions were answered to *my* satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

_____

Name of Subject/Participant

_____

Name of Legal Representative (if applicable)

_____ _____

Signature of Subject/Participant or Legal Representative Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ name participant. He/she was encouraged and given ample time to ask me any questions. This conversation was conducted in English and no translator was used.

_____ _____

Signature of Investigator Date

UNIVERSITY OF LIMPOPO
TURFLOOP CAMPUS

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

06 October 2017

TO WHOM IT MAY CONCERN

This letter serves to certify that I have edited **RAKOMA M.A.'s** thesis titled **Rural Students' Experiences of Online Learning Support in an Open Distance Learning Environment.**

I hope you will find the editing quality in order.

Regards