

**THE USE OF MOODLE AS AN E-LEARNING TOOL FOR ENGLISH LANGUAGE
TEACHING AND LEARNING IN NAMIBIA**

by

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I declare that **The use of Moodle as an e-learning tool for English language teaching and learning in Namibia** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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Abstract

Title of thesis:

THE USE OF MOODLE AS AN E-LEARNING TOOL FOR ENGLISH LANGUAGE TEACHING AND LEARNING IN NAMIBIA

The research investigated the use of Moodle in three tertiary level English language programmes at an institution of higher learning in Namibia, using a qualitative approach. As the use of technology in education has become imperative, it was also mandatory for academics at the research site to incorporate technology into their teaching and learning. It aimed to investigate how Moodle was used to enhance English language teaching and learning, emanating from the need of similar studies in the field and at the research site. Also, the research aimed to uncover the successes and challenges that the lecturers and students experienced in the process of using Moodle. The research adopted a case study design with three embedded sub-units: three English language courses. Six lecturers and 15 students participated in the study. Data were collected through interviews, observation and document analysis and were analysed thematically. The research revealed how the lecturers and students involved in the three English language service courses were enthusiastic about using Moodle and a few successes were notable, but they were also challenged in different ways. Four of the lecturers considered themselves to be beginners as they had only recently started to use Moodle extensively, while the other two considered themselves average users of the system. The study revealed more challenges than successes. Minimal use of Moodle in the fundamental and intermediate English language courses, minimal use of the embedded Moodle communication tools, and limited knowledge and skills in using the system emerged as some of the key challenges. Although the institution had training mechanisms in place, both lecturer and student participants pleaded for more staff training opportunities to enable them to use the tools that were found to be underutilised: the blogs, chat and discussion forums. Drawing on the findings of the study, the guidelines for effective use of Moodle are suggested.

KEY TERMS:

Application of technology, Augmented learning, Challenges, Constructivism, e-Learning, English as a second language, Learning Management Systems, Moodle, Moodle tools, Successes

Titel: Die gebruik van Moodle as 'n e-leerhulpmiddel vir Engels-taalonderrig en -leer in Namibië

Die navorsing het die gebruik van Moodle in drie Engels-taalprogramme op tersiêre vlak by 'n instelling van hoër onderrig in Namibië aan die hand van 'n kwalitatiewe benadering ondersoek. Aangesien die gebruik van tegnologie in onderwys noodsaaklik geword het, het dit ook vir akademici wat navorsing doen verpligtend geword om tegnologie by hulle onderrig en leer te inkorporeer. Dit het ten doel gehad om ondersoek in te stel na hoe Moodle gebruik word om taalonderrig en -leer: Engels, te verbeter, wat voortvloei uit die behoefte van soortgelyke studies in die veld en navorsingsterrein. Die navorsing was ook daarop gemik om die suksesse en uitdagings bloot te lê wat die dosente en studente ervaar wanneer hulle Moodle gebruik. Die navorsing het 'n gevallestudie-ontwerp met drie ingebedde subeenhede, drie Engels-taalkursusse, gebruik. Ses dosente en 15 studente het aan die studie deelgeneem. Data is deur middel van onderhoude en dokumentontleding ingesamel en is daarna tematies ontleed. Die navorsing het getoon dat die dosente en studente betrokke by die drie Engels-taaldienskursusse entoesiasies was oor die gebruik van Moodle en 'n hele paar suksesse is aangeteken hoewel hulle ook op verskillende maniere uitgedaag is. Vier van die dosente het hulleself as beginners beskou omdat hulle onlangs eers op 'n groot skaal van Moodle gebruik begin maak het, terwyl die ander twee hulleself as gemiddelde gebruikers van die stelsel gesien het. Die studie het meer uitdagings as suksesse aan die lig gebring. Van die belangrikste uitdagings blyk te wees: die minimale gebruik van Moodle in die fundamentele en intermediêre Engels-taalkursusse; die minimale gebruik van die ingebedde Moodle-kommunikasihulpmiddels; en beperkte kennis en vaardighede om die stelsel te gebruik. Hoewel die instelling opleidingsmeganismes tot die gebruiker se beskikking het, het die dosente- sowel as die studentedeelnemers gevra vir meer personeelopleidingsgeleenthede om hulle in staat te stel om die hulpmiddels wat onderbenut word, te kan gebruik, soos die blogs, gesels- en besprekingsforums. Deur na die bevindinge van dié studie te kyk, word riglyne vir die doeltreffende gebruik van Moodle aan die hand gedoen.

Sleutelwoorde: Toepassing van tegnologie, Aanvullende leer, Uitdagings, Konstruktivisme, e-Leer, Engels as 'n tweede taal, Moodle, Moodle-hulpmiddels, Suksesse

Isihloko: Ukusetjenziswa kwehlelo le-*Moodle* njengethulusi le-inthanedi ukufundisa nokufunda ilimi lesiNgesi eNamibia

Irhubhululo beliphanya ngokusetjenziswa kwe-*Moodle* kumaphrogremu welimi lesiNgesi emazikweni amathathu wefundo ephakemeko eNamibia, ngokusebenzisa ngokwendlela yekhwalthi. Njengombana ukusetjenziswa kwethekinoloji kezefundo sekwaba yinto eqakathekileko nje, bekukatelelekile ukobana iimfundiswa ephikweni lezerhubhululo zisebenzise ithekinoloji ehlelweni lezokufunda nokufundisa. Irhubhululo lihlose ukuphenya indlela i-*Moodle* lisetjenziswe ngayo ukuqinisa ihlelo lokufunda nokufundisa ilimi lesiNgesi, lokhu kukhozelelwa sidingo seemfundo ezifanako emkhakheni kanye nebhodulukweni lerhubhululo. Begodu, irhubhululo lihlose ukuvumbulula ipumelelo kanye neentjhijilo ezihlangabezana nabafundisi kanye nabafundi ehlelweni lokusetjenziswa kwe-*Moodle*. Irhubhululo lilandele isibonelo sendatjana yesifundo (*case study*) edizayinwe ngamayunithi amancani: iimfundo zelimi lesiNgesi. Abafundisi abasithandathu kanye nabafundi abali-15 bazibandakanyile kulesi sifundo erhubhululo. Idatha yabuthelwa ngokwamahlelo wehlolombono (*interviews*), ukuqalisisa kanye nokutlola okutsengiweko kanti lokhu kwahlelwa ngokwesihloko serhubhululo. Irhubhululo liveze indlela abafundisi kanye nabafundi abazibandakanye ngayo ehlelweni lokwethulwa kweemfundo zelimi lesiNgesi ukobana bazibandakanye ngendlela ebeyikarisa kwamambala ngokusebenzisa i-*Moodle* kanye kunezinto ezimbalwa ebezikhombisa ipumelelo, kodwana nayo ipumelelo leyo beyikhombisa ineentjhijilo ngeendlela ezahlukeneko. Abafundisi abane bazithethe ngokwabo njengabantu abasathomako njengombana bebathoma ukusebenzisa i-*Moodle* ngokunabileko, kanti abanye ababili bazithethe njengabasebenzisi behlelveli abanelwazi elilingeneko. Irhubhululo liveze iintjhijilo ezinengi kuneempumelelo. Ukusetjenziswa kancani kwe-*Moodle* eemfundweni zesigaba sesisekelo nesiphakathi zelimi lesiNgesi, ukusetjenziswa kancani kweenthulusi ze-*Moodle* zokuthintana, kanye nelwazi elincani namakghono amancani ekusetjenzisweni kwehlelo kuvele njengezinye zeentjhijilo eziqakathekileko. Yize iziko belineendlela zokubandula ebelingazisebenzisa, bobabili abadlalindima umfundisi kanye nomfundi babawe ukunikelwa amathuma amanengana wokubandulwa kwabasebenzi ukubasiza kobana basebenzise amathulusi ebekubonakala bonyana akasetjenziswa ngokugcweleko: amabhlogo, ukutjhatha kanye namaforamu

wokucocisana. Nakuthathwa isiphetho ngalokho okuvunjululwe lirhubhululo kuphakanyiswe ukusetjenziswa kuhle kwemihlahlandlela ye-*Moodle*.

Amagama aqakathekileko: Ukusetjenziswa kwethekinoloji, Ukufunda okugcwaliselelwako/okusekelwako, Iintjijilo, Ihlelo lekhonstrakthivizimu, Ihlelo lokufunda nge-inthanedi, IsiNgisi njengeli lesibili, i-*Moodle*, Amathulusi we-*Moodle*, Iimpumelelo

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LIST OF ACRONYMS

BCS	Bureau of Computer Services
CALL	Computer Assisted Language Learning
CHAT	Socio-cultural historical theory
CODEL	Centre for Open, Distance and e-Learning
CTL	Center for Teaching and Learning
DoEL	Department of Education and Languages
EAP	English for Academic Purposes
EFL	English as a Foreign Language
ELT	English Language Teaching
ELTL	English Language Teaching and Learning
EPR	English in Practice
ESL	English as a Second Language
HoD	Head of Department
ICT	Information Communication Technology
ICTs	Information Communication Technologies
IUM	International University of Management
KEWL	Knowledge Environment for Web-based Learning
L2	Second Language
LMS	Learning Management System
MoBESC	Ministry of Basic Education, Sport and Culture
MOOC	Massive Open Online Courses
MOODLE	Modular Object-Oriented Dynamic Learning Environment
NDP5	Namibia 5 th National Development Plan
NUST	Namibia University of Science and Technology
PLU	Principles of Language Usage

PoN	Polytechnic of Namibia
SA	South Africa
SHS	School of Human Sciences
SLA	Second Language Acquisition
TLU	Teaching and Learning Unit
UNAM	University of Namibia
UNISA	University of South Africa
VLE	Virtual Learning Environment
ZPD	Zone of Proximal Development

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CHAPTER ONE: ORIENTATION AND BACKGROUND

1.1 INTRODUCTION

Information Communication Technology (ICT) has a major impact on all aspects of life nowadays, including the education sector. Several researchers in educational technology acknowledge the importance of using ICT in various aspects of higher education teaching and learning (Mtebe, Dachi & Raphael 2011:293; Muñoz-Repiso & Tejedor 2012:908; Ramanair 2014:1). Also, the Internet, Web 2.0 applications and social networks have created opportunities for students to get actively engaged in language learning using a variety of technologies through collaboration, participation and production (Laakkonen 2011:225). For example, Wikis and blogs can be used to share information and enhance research skills (Bernsteiner, Ostermann & Staudinger 2010:175 and Siemens & Tittenberg 2009:3), while podcasts can be used to record lectures and student reflections (Siemens & Tittenberg 2009:45). In short, these are a few examples of opportunities afforded by ICT in the higher education sector.

It is widely acknowledged that the use of Information Communication Technologies (ICTs) has potential benefits for education, but Livingstone (2012:9) Mikre (2011:1) and Mtebe et al (2011:293) illustrate how the process of embedding ICTs in education to enhance teaching and learning poses both opportunities and challenges. Although blended learning, the combination of face-to-face teaching with computer assisted language learning (CALL), has been investigated in different contexts of CALL, “the review of literature indicates insufficient information about materials, teaching methods, patterns of interaction, and participant roles” (Grgurović 2011:103). In short, not enough is known about what really transpires at classroom level when technology is being integrated with English language teaching and learning (ELTL), pointing to the need for more studies in the field. It is on this basis that Grgurović’s (2011) study concentrated on how the blended learning model was specifically being used at classroom level in ELTL. However, the concept of augmented learning, whereby e-learning is combined with face-to-face teaching, was more suitable for the approach that was used in the English language courses at the research site.

Provision of technological facilities might not be a serious matter of concern, but availability of technological tools in classrooms does not equate to their effective use. With reference to Shyamlee (2012:150), there are a great number of technologies that can be used for English as a Second Language (ESL) teaching and learning, but these technologies are not fully utilised. In the same vein, Thouësny and Bradley (2011:3) argue that although existing literature points to the fact that using technology for teaching and learning is rewarding, incorporating it in education remains a serious matter of concern.

Poor usage of ICTs for ELTL has been noticed to be a global challenge. For example, Dogoriti, Pange and Anderson (2014:257) report limited use of ICT in ELTL when they conducted a study on the use of Moodle combined with Facebook in ELTL in the context of higher education in Greece, which is a less developed country. This was irrespective of adequate infrastructure at that institution. This calls for the need for more research on the use of technology in ELTL, especially in the context of higher education. Similarly, poor usage of ICTs has been found to be a constraint to effective teaching and learning at educational institutions in developing economies (Khan, Hasan & Clement 2012:73; Mtebe et al 2011:292; Nenge, Chimbadzwa & Mapolisa 2012:118). In the context of this study, the concept of developing economies is to be understood as countries where the standard of living is lower and the infrastructure is less developed in comparison with others. This state of affairs, the need to explore the usage of ICTs in English language teaching (ELT), points to the necessity of a study of this nature.

1.2 BACKGROUND TO THE STUDY

In line with global trends, the use of ICTs in education is a priority in Namibia. As stipulated in the Information Technology Policy for the Republic of Namibia (Namibia Ministry of Information Communications Technology 2009:16), “major emphasis on ICT education at all levels of education is a prerequisite for the future competitiveness of Namibia as a country and the reduction of the digital divide”. Likewise, as stipulated in the Namibian ICT Policy for Education (Ministry of Basic Education, Sport and Culture (MoBESC) 2005:5), one of the Namibian educational goals emphasises “the pedagogical use of ICT as an integrated tool in the teaching-learning process at all

levels in the educational system [and] competence in the use of ICT by teachers, students,... to be developed through a long period of guided practice and investigation". However, irrespective of the abundant technologies available for teaching and learning, the use of technology in the English language and other subjects in the Namibian higher education context remains a concern. This observation is supported by Gamundani, Kanyangela and Chitauro (2015:1992) who report that "there is little practical implementation of e-learning in institutions of higher learning in Namibia".

The Learning Management System (LMS) that is in use at the institution under study, hereby referred to as the research site, is Moodle, also called Modular Object-Oriented Dynamic Learning Environment (MOODLE). It is an e-learning platform where students interact with the content as a standalone course or as a blended learning course (Brandl 2005:16). Moodle is used to supplement face-to-face teaching at the research site, thus facilitating both augmented and blended learning approaches. However, the use of LMSs at the institution under study has been fluctuating. Albee, Haggart, Paula and Perez-Rogers (2012:25) explain how Moodle was first implemented at the institution in 2005, but lecturers basically only used it for notes, and only one department used it for blended learning. In 2006 Moodle was replaced by another LMS, Knowledge Environment for Web-based Learning (KEWL) that was also phased out and was replaced by Chisimba in 2011. The study on e-learning at the institution that was conducted by Albee et al (2012:7) resulted in the institution switching back to Moodle in 2013, because the Chisimba interface was found to be challenging and also not user-friendly as it was not suitable for mobile interface. To better accommodate student needs and enhance their participation when Moodle was reinstated in 2013, Albee et al (2012:27) created user-friendly documentation where Moodle features were explained, as well as guidelines on how to use Moodle. Moodle has since then been in use, making it worth investigating how it was being used.

The institution has adopted a blended learning approach for many of the courses that are offered, using Moodle, and some of the courses are even presented fully online. It is mandatory for all the courses at the institution to supplement face-to-face teaching with technology, using Moodle. As stipulated in the institutional e-learning policy, one of the goals of the e-learning policy is to "ensure that e-learning is continually applied

consistently throughout all courses and in any mode of study across the institution” (Polytechnic of Namibia (PoN) 2010:2). The Department of Education and Languages (DoEL), where the study was conducted, falls under the School of Human Sciences at the institution, and it offers English service courses to all the students who are enrolled for studies in different fields. This makes the English language service courses significant, as students cannot graduate without having completed the English language courses successfully. These courses provide training in the four main language domains of listening, speaking, reading and writing, as well as basic research skills. However, students’ low proficiency in the English language has been a consistent problem. For instance, students’ vocabulary is limited, they struggle to communicate effectively in English, and their writing skills are poor, an observation that was also made by Mungungu-Shipale (2016:3) in her study of corrective feedback in ESL at the institution under study.

The poor performance of students in the English language courses at the institution under study is illustrated in Table 1.1 below, in which students who have written supplementary examinations for various English courses did not perform well, irrespective of the fact that these students had been given a second opportunity. Although the statistics include very few cases of students who had missed the first examinations due to some other reasons, a high failure rate in the English supplementary examinations illustrates the gravity of the situation.

Table 1.1 Supplementary English examination results (Source: Institutional Planning 2019)

Subject Code	EXAM_TYPE	2016			2017			2018			2019		
		Fail	Pass	Pass rate	Fail	Pass	Pass rate	Fail	Pass	Pass rate	Fail	Pass	Pass rate
EAP511S	Supplementary	636	226	26%	527	354	40%	366	257	41%	157	187	54%
EPR511S	Supplementary	98	50	34%	262	63	19%	194	113	37%	49	7	13%
PCO611S	Supplementary	8	10	56%	27	16	37%	23	22	49%	12	4	25%
PLU411S	Supplementary	N/A	N/A	N/A	2	1	33%	69	22	24%	103	37	26%
PWR611S	Supplementary	92	35	28%	84	109	56%	76	102	57%	29	31	52%

The low English proficiency of students illustrates why it was needed to explore and establish how Moodle features or applications were being used by the lecturers and students to enhance ESLTL, thus in a specific discipline, as per recommendations by Albee et al (2012:41).

Şahin-Kizil (2014:178) illustrates how Moodle affords a variety of tools that could be used to enhance ELTL, such as creation of online content, discussion forums, chat forums, blogs, wikis, e-assessment, podcasts and e-portfolios. A need existed to explore and establish how lecturers use these features in ESL pedagogy to advance the way English language service courses are taught, considering that the use of technology for teaching and learning is mandatory at the institution. If the use of technology has been found to have a positive impact on ESL teaching and learning in other contexts (Alhothli 2015:58; Karabulut 2013:171; Suppasetsee & Dennis 2010:39), it could also be beneficial to students at the institution under study if the technology was used effectively. Compared to traditional ways of teaching and learning, technology facilitates a different approach to language teaching and learning, and it might have a positive impact on the English language proficiency of students.

1.3 STATEMENT OF THE PROBLEM

As the use of technology in education has become imperative in the era of technology, it was mandatory for academics at the research site to incorporate technology into their teaching and learning, English inclusive. Students' poor English language competency is a key challenge as indicated by Mungungu-Shipale (2016) in her study on ESL correctional feedback in Namibia. Mungungu-Shipale (2016:3) illustrates how "even students who have made it to the tertiary level still struggle to communicate properly in English and to comprehend the language well". There are a few studies that have been conducted regarding the use and integration of ICTs in education in Namibia (Auala & Mbale 2012; lipinge 2010; Ngololo 2010; Simon 2019). However, with the exception of Simon's (2019) study, many of these studies investigated the use of ICTs in teacher education programmes, and none of them focused on the application of technology in higher education ESL, pointing to the need of a study of this nature.

Also, although the ICT tools that are available on the institutional LMS, Moodle, could be effectively manipulated to enhance the English language skills of the students, an observation has been made that the use of e-learning, and Moodle specifically, remained undesirable across the disciplines at the institution (Albee et al 2012:19; Wambui & Black 2009:5), English courses inclusive. It was on this basis that Albee et al (2012:41) recommended evaluation of Moodle after it had been re-introduced at the institution in 2013 to determine its use, or lack thereof, specifically within the different schools. They also recommended investigation of the tools used on Moodle, and the students' and lecturers' proficiency regarding Moodle usage (Albee et al 2012:41). Similarly, Wambui and Black (2009:4) expressed the need for more studies on existing e-learning content at the institution under study. The institutional e-learning policy defines e-learning to be "the use of a Virtual Learning Environment (VLE) to deliver education in combination with face-to-face classes or completely online" (PoN 2010:3). The problem of integration of technology in ELT has also been acknowledged at departmental level at the institution under study. The 2016 departmental analysis of the strengths, weaknesses, opportunities and threats (SWOT) highlighted poor usage of ICT resources, including the use of Moodle in the English language service courses, as one of the weaknesses of the department.

The problem under discussion has also been observed in other contexts, whereby studies conclude that the use of Moodle to supplement the traditional curriculum in ESL remains a matter of concern, and it is an area that is under-researched in a variety of contexts (Jose 2015:28; Ramanair 2014:1; Şahin-Kizil 2014:176). To expand this argument, Jose (2015:28) and Şahin-Kizil (2014:176) argue that there is relatively limited research on blended learning in ELT, calling for more research on the use and effectiveness of Moodle in English as a Foreign Language (EFL) and ESL teaching and learning. Also, the Moodle platform is sometimes used ineffectively, as illustrated in Costa, Alvelos and Teixeira's (2012:341) study that revealed how Moodle was basically used as a repository of information and materials, while tools that promote interaction, collaboration and real time communication were found to be underused. On the other hand, previous literature on the use of LMSs is dominated by quantitative research approaches that lack the ability to dig deeper to gain a better understanding of the situation. This necessitated a study that adopted a qualitative approach to

uncover multiple realities pertaining to the use of Moodle for English language teaching and learning.

Nevertheless, little is known about how technology is applied at classroom level in ESL teaching and learning in the Namibian higher education context due to limited research on e-learning in the Namibian higher education sector, a concern Mässing (2017:41) also acknowledges. Hence, this study aimed to investigate and establish how technology was being applied in ESL teaching and learning in the Namibian higher education context using Moodle, which was being used as an e-learning platform at the institution under study. Thus, this research contributed to filling gaps in the research literature. The study targeted lecturers and students who had experienced the process of using Moodle features in ESL teaching and learning at tertiary level.

1.4 RESEARCH QUESTIONS

In the context of ICT integration into ELTL and learning at tertiary level, the study aimed to provide answers to the following key research question:

How do lecturers and students involved in English language service courses use Moodle as an e-learning tool to enhance ESL teaching and learning?

The research sub-questions that guided the enquiry, arising from this key research question, were:

1. What procedures govern the use of Moodle as an e-learning tool to enhance ESL teaching and learning?
2. How do lecturers and students involved in English language service courses use Moodle features to enhance ESL teaching and learning?
3. What successes do the lecturers and students involved in English language service courses experience in the process of applying Moodle to enhance ESL teaching and learning?
4. What challenges do the lecturers and students involved in English language service courses experience in the process of applying Moodle to enhance ESL teaching and learning?
5. What guidelines can be used for the effective use of Moodle to enhance ESL teaching and learning at tertiary level in a developing context?

1.5 AIM OF THE RESEARCH

In the context of ICT integration in higher education, the study aimed to explore how lecturers and students involved in English language service courses at the research site used Moodle to enhance ESL teaching and learning. This investigation would provide insight into how ESL lecturers and students use Moodle tools to support the English language teaching and learning process, thus bringing to light both challenges and successes. This would enable transformation of educational practices. In light of this main aim the sub-aims of this study were:

1. To establish the procedures governing the use of Moodle as an e-learning tool for ESL teaching and learning.
2. To uncover how the lecturers and students involved in English language service courses at the institution use Moodle features to enhance ESL teaching and learning.
3. To identify and bring to light the successes the lecturers and students involved in English language service courses at the institution experience in the process of applying Moodle to enhance ESL teaching and learning.
4. To identify and bring to light the challenges the lecturers and students involved in English language service courses at the institution experience in the process of applying Moodle to enhance ESL teaching and learning.
5. To establish and recommend guidelines for effective use of Moodle in ESL instruction at tertiary level in a developing context, thus enhancing existing educational practice

1.6 SIGNIFICANCE OF THE STUDY

The significance of this study stems from the notion that the successful use of e-learning platforms largely depends on teachers' knowledge of the ICT tools and awareness of how these tools should be utilised (Costa et al 2012:342; Motteram 2013:7). The investigation of the way the Moodle platform was used in the ESL curriculum would uncover the Moodle tools that were used and how they were used, and this would pave the way for enhanced ESL augmented learning. The research would provide insight into the manner in which the ESL lecturers and students used Moodle tools to support the language teaching and learning processes, thus bringing to light both challenges and successes. This research would consequently optimise

the quality of ESL online teaching and learning mediated by an LMS. Furthermore, the findings of the study would enable transformation of educational practices as they would sensitise the lecturers on exemplary practice, thus enabling the lecturers to adopt good practices emerging from the study. Furthermore, the study would sensitise researchers in the field on issues that need to be studied further, emerging from this research. Also, the challenges and barriers experienced would sensitise curriculum developers and other stakeholders in education to the problems experienced in the application of technology at classroom level in higher education, especially in ESL. The study might thus be beneficial to students, instructors, curriculum developers and other stakeholders in education.

In addition, considering the lack of studies in this area, the study would enhance understanding of the use of e-learning technologies in ESL in the Namibian higher education sector. Finally, the findings of the study would enable the researcher to establish strategies for successful use of Moodle in ELTL at tertiary level in a developing economy, especially where Moodle is not yet fully embraced.

The type of inquiry that the researcher of the present study found appropriate, based on the problem at hand, is presented next.

1.7 RESEARCH DESIGN

This section presents the philosophical research paradigms that guided the design of the study, as well as the research approach that was adopted. Creswell (2014b:12) defines research designs as “types of inquiry within qualitative, quantitative, and mixed methods approaches that provide specific direction for procedures in a research design”, while methodology refers to the general approach the researcher adopts to study research topics.

1.7.1 Research paradigm

The researcher of this study adopted a pragmatism philosophical research paradigm of viewing the world. Creswell (2014b:6) describes a research paradigm as an overall framework of beliefs and values that guide the research process, while Cooper and White (2012:15) understand it to be “a set of logically related assumptions, concepts, or principles that tend to guide our thinking and the important assumptions that we

have about how the world functions”. Drawing on Morgan (2014:1) a pragmatism philosophical position that was adopted in this study enables multiple research methods, such as qualitative, quantitative or both qualitative and quantitative, but overall, Holliday (2016:16) states how it is the nature of the research question that determines the research paradigm and approach.

In terms of ontology, that drawing on Cooper and White (2012:16), is “what we know to be the nature of reality”, the study adopted a subjective philosophical position that enables multiple interpretations of reality, based on the assumption that knowledge is socially created (Merriam and Tisdell 2016:9). This philosophical position facilitated interaction with the participants in the study to enable social construction of multiple realities pertaining to the use of Moodle as an LMS for ELTL as per socio-constructivist thinking.

1.7.2 Research approach

Creswell (2014b:11) mentions three research approaches: qualitative, quantitative and mixed methods. As this study adopted a pragmatism paradigm, a qualitative research approach of inductive nature was identified to be fitting as opposed to quantitative research that, according to Creswell (2014b:155), usually adopts a positivist philosophical position.

Creswell (2013:48) identifies a number of reasons for conducting an empirical qualitative study, such as to explore a complex problem in order to get better understanding, to empower individuals to express their views, and to develop theories when the existing ones do not fit the problem under study. In the same vein, the present study had exploration attributes; it empowered the participants to express their views through individual and group interviews, and it facilitated better understanding of the use of Moodle in ELTL.

Babbie (2013:112) describes how what is to be studied and the time period of the study determine the appropriate research strategy or design. Hence, a case study interactive mode of inquiry was employed. It is hence crucial to employ multiple data collection methods over a long period when engaged in qualitative research. This research adopted a single case study focusing on one unit of analysis, the use of

Moodle features in ELTL at the institution under study, but with embedded subunits, namely three English language service programmes that are explained in detail in Section 4.4.2.

The research methods that the researcher of this study employed to research the problem under study are discussed in the subsequent section.

1.8 RESEARCH METHODS

This section presents the methods that the researcher used to select the setting and the individuals to be studied, as well as the research procedures and methods that were employed to collect and analyse the data.

1.8.1 Selection of research site and participants

The participants in the study, the setting and the study programmes were all purposively selected due to their likelihood to provide relevant information pertaining to the research questions. Yin (2015:339) describes purposive sampling to be “the selection of participants or sources of data to be used in a study, based on their anticipated richness and relevance to the study’s research questions”.

Harding (2013:17) explains how purposive sampling is a technique in which “the researcher is quite deliberately subjective, choosing those respondents who would best fit the purpose of the research”. As the researcher aimed to understand the social world from the perspective of the people who had experienced the problem under study, the lecturers and students who had used Moodle in ELTL at tertiary level would be in the ideal position to provide the information required.

1.8.1.1 Research site

The study took place in the DoEL in the School of Human Sciences at the institution under study, which was established as a polytechnic institute about twenty years ago but gained university status in November 2016. It is thus an institution that was still in transition to a fully-fledged university by the time the study was conducted.

There are four computer laboratories that are used by the DoEL on a rotational basis, meaning different class groups use these laboratories. Not all the computer laboratories are furnished with enough computers for the students who make use of

the laboratories. Although there are also computers in laboratories in other departments, there is no free access to these computer laboratories. Computers in the library are open to all students in the campus, but they are not usually enough for the student population.

The DoEL is in charge of the English language service courses that are offered at the institution at undergraduate level, but there is also another department in the School of Human Sciences (SHS), the Department of Communication, that is responsible for undergraduate and post-graduate qualifications in English. The English language service courses are compulsory for all the students enrolled at the institution. However, the performance of students in English remained poor, especially in writing and speaking. These are some of the skills that are taught in the three English language service courses at the institution: Principles of Language Usage (PLU), English in Practice (EPR) and English for Academic Purposes (EAP).

1.8.1.2 Sampling

As the problem to be investigated had been identified in the DoEL, the project targeted lecturers and students involved in three English language service programmes offered in the department: Principles of Language Usage (PLU), English in Practice (EPR) and English for Academic Purposes (EAP). The three courses selected had four hours of English per week, lasting for one hour per session, but one of these four hours was specifically for Moodle lessons in the laboratories. The other two English courses that were offered in the department were not included in the study as they were electives that were more specialised.

The lecturers who participated in the study were the lecturers teaching the three English language service courses at the institution during the study period, while the students who took part in the study were the students attending those courses, thus using Moodle. Six lecturers were purposively chosen from about twenty lecturers teaching the English language service courses, based on how long they had been teaching English in the department, at least for more than three years. They also had to be lecturers teaching the English language service courses on a full-time mode of study, supplementing face-to-face classroom teaching with Moodle. The students were deliberately selected from the class groups of the lecturers participating in the

study, based on their likelihood to provide relevant information. They had to be students engaged in the process of supplementing face-to-face classroom teaching with Moodle, thus using Moodle in the English language service courses during the period of data collection. The lecturers who participated in the study assisted in identifying students in their classrooms who were likely to provide the information required.

Students enrolled for the English service courses on a part-time basis hardly attended online lessons in the laboratories due to lack of facilities. The majority attended only face-to-face classes, and unlike full-time students who attended four English language classes per week, only three hours per week were allocated to the part-time mode of study. Part-time and distance students did not therefore participate in the study as their study programmes were slightly different from that of the full-time students.

Yin (2015:93) describes sampling as “the selection of the specific instances, as well as the number of them, to be included in (the) study”. It was impossible to conduct interviews with all the English language service course lecturers and students at the institution, the total population or everyone in the population being sampled (Babbie 2013:127). Hence, only a small sample of the total population participated in the research due to lack of time and administrative resources. Harding (2013:8) mentions how qualitative research requires the researcher to collect detailed information from a smaller sample. Creswell (2013:155) explains, the strength of purposive sampling is the fact that the research participants provide important insights into the problem that is being investigated as they have experienced the problem under study.

Among various types of purposive sampling techniques that are used in qualitative research, homogeneous sampling was identified as appropriate. As Creswell (2013:155) explains, homogeneous sampling is useful when the research question is exclusive to a specific subgroup in which the participants have similar characteristics. Thus, all the participants in this study were lecturers and students engaged in the English language service courses, using Moodle for augmented learning. The sampling strategy is discussed in detail in Section 4.4.1.

1.8.2 Data collection procedures

The study used qualitative data through classroom observation, interviews and document analysis to facilitate triangulation, which Yin (2015:337) describes as “the deliberate seeking and collecting (of) different kinds of evidence that nevertheless converge on the same finding”. Triangulation was employed in the sense that different procedures were used to collect data. Thus, data were collected through classroom observation, individual semi-structured face-to-face interviews with the lecturers, focus group interviews with selected students from the class groups that were observed, as well as through the analysis of documents. These data collection methods are discussed next.

1.8.2.1 Observation

The observation entailed investigating how lecturers and students were using Moodle tools and applications for English language teaching and learning as per the observation checklist (see Appendix F). Both face-to-face and online lessons were observed to establish how augmented learning was used. In each course the online lessons took place once a week for an hour in the computer laboratories. Observations lasted for three weeks per course, and two class groups were observed per course. The researcher adopted the role of a non-participant observer that Harding (2013:21) describes to be observation in which the observer takes notes while observing a social situation to gain better understanding, but the observer does not take part in it. .

Harding (2013:22) alerts qualitative researchers to be cautious, because although observation has the potential to produce a large amount of data within a short period of time, it can also become a dilemma due to the amount of data they would analyse. As observation has some weaknesses, just like any other data collection method, it was essential to use multiple data collection methods to triangulate the data. One of these methods was individual and group interviews, as discussed in the two subsequent sections.

1.8.2.2 Individual interviews

Individual interviews were conducted with all six lecturers participating in the study to enable them to share their practices and experiences regarding the use of Moodle

applications in ESL teaching. Semi-structured interview questions using open-ended questions were framed in terms of the existing perceptions and beliefs of the research participants as per the lecturers' interview schedule (see Appendix G). Yin (2014:239) describes individual interviews as "the mode of data collection involving verbal information from a case study participant". Yin (2014:239) further explains how individual interviews are usually conversational and how the questions are not articulated exactly the same for each participant.

Nevertheless, the researcher had to be cautious of the weaknesses of individual interviews, for example the fact that they are "less naturalistic" (Harding 2013:22) when compared to observations.

1.8.2.3 Focus group interviews

In addition to individual interviews, three focus group interviews involving five to six students from each of the class groups that were observed were conducted to get students' perspectives on the use of Moodle for ELTL. The interviews were guided by the interview schedule, Appendix H. Alluding to Silverman (2013:211), a focus group interview is a data collection method that can be used "as a standalone way of gathering qualitative data". Thus, it does not always follow the interviews, and this is how this method was employed in this study.

As defined by Yin (2015:336), a focus group interview is "a form of data collection method whereby the researcher convenes a small group of people having similar attributes, experiences, or 'focus' and leads the group in a nondirective manner", to get the perspectives of the individuals in the group with minimal, if any, direction from the researcher. The focus group interviews provided a platform for the participants in the present study to share their experiences of participating in ESL activities organised by their lecturers, using the Moodle platform. Nevertheless, Harding (2013:23) describes how focus group interviews have their limitations, just like other data collection methods, such as limited control of the group members that can result in irrelevant discussions. This situation alerted the researcher to be vigilant. Both individual and focus group interviews were tape recorded and then transcribed for analysis.

1.8.2.4 Document analysis

Document analysis entailed the analysis of the online content of the three aforementioned English language courses, using the existing Moodle platform, as well as both electronic and printed policy documents that were available in the public domain (see Table 4.2). The documents were analysed in light of the themes that emerged from the analysis of interviews and observations, which enabled better understanding of the context.

Documentary information can be used by the researcher to corroborate and strengthen evidence from other sources of data, a sentiment shared by Yin (2014:107). However, document analysis has also some disadvantages that the researcher should be vigilant about while analysing them. For example, Yin (2014:106) points out how retrievability of the documents could be a challenge as they might not be easily retrieved, as well as bias in choosing the documents or on the side of the author of the document.

Data collection dictates the analysis of the data that the researcher has collected. Below is a discussion on how the data were analysed.

1.8.3 Data analysis

Babbie (2013:389) describes qualitative data analysis as “the non-numerical assessment of observations made through participant observation, content analysis, in-depth interviews, and other qualitative research techniques”. Drawing on Merriam and Tisdell (2016:202), data analysis entails three key steps: consolidating, reducing, and interpreting the data. These are the steps the researcher followed in analysing the data in this study. Creswell (2013:45) describes how qualitative research adopts an inductive data approach that entails vigorous analysis of the data.

The data were analysed for similarities, differences and relationships between and within the themes. In accordance with Creswell (2012:237), in order to discover what emerges from the data, the data were coded and then thematically analysed to develop patterns and categories by employing an inductive approach. Coding, drawing on Yin (2015:334), is “the assignment of simple words or short phrases to capture the meaning of a larger portion of (the original) textual or visual data”. To identify broader

themes and the description that would be used for the research report, content analysis was applied in the analysis of documents, employing the themes that emerged from the analysis of interviews and observations.

The findings were reported in a narrative discussion, which Creswell (2014a:278) defines as “a written passage in a qualitative study in which authors summarise in detail the findings from their data analysis”. The narrative discussion was reinforced with extracts from lecturers’ and students’ responses during the interviews.

1.9 ETHICAL MEASURES

The ethical considerations are adhered to when one is conducting research making use of human subjects (Babbie 2013:58). Ethical considerations regarding the use of human instruments were adhered to, in accordance with the rules and regulations of the academic institutions involved in the research project. The researcher sought, and was granted, ethical clearance from the institution overseeing the study, UNISA (Appendix E), and the research was conducted in accordance with the UNISA policy on research ethics.

The researcher also sought and was granted permission to conduct research at the institution under study before data collection commenced (Appendix B). The research participants were given a clear purpose of the study and what would be expected from them (Appendix C). Forms giving informed consent to participate in the study voluntarily were handed to the participants as consent was required for lesson observations, as well as to interview the participants, record and transcribe the interviews (Appendix D). Confidentiality regarding the identity of the participants was also adhered to by using pseudonyms. Participation in the study was voluntary, and participants were informed of their right to withdraw from the study should they wish to.

1.10 TRUSTWORTHINESS

Qualitative researchers are obliged to ensure the trustworthiness of their research. The concept of trustworthiness that, according to Lincoln and Guba (1985:218), entails credibility of the research, its transferability, dependability and confirmability, is discussed briefly below.

Creswell (2013:249-250) describes trustworthiness as “an attempt to assess the ‘accuracy’ of the findings, as best described by the researcher and the participants”. It was accordingly essential for the researcher of the current study to bear in mind the degree to which the data collection and analysis methods could be trusted in terms of quality. Each of the measures that were taken to ensure the trustworthiness of the study during data collection and analysis, namely **credibility**, **transferability**, **dependability** and **confirmability**, is explained in detail in Section 4.5.4.

1.11 DEFINITION OF KEY CONCEPTS

This section presents definitions that guide the reader on how certain concepts should be understood in the context of this study, including conceptual definitions that are derived from literature. Definitions without a citation were developed by the researcher.

1.11.1 Augmented learning

There is a close link between augmented and blended learning. Amongst many different definitions of blended learning that exist, blended learning can be understood as a combination of face-to-face classes with online classes, but in a blended learning approach there are more online lessons compared to face-to-face lessons (Siemens & Tittenberg 2009:16). These descriptions provide a clear picture of what transpires when the blended learning approach is adopted. However, a more appropriate definition that reflects how blended learning is applied in the English language service courses at the institution under study is "face-to-face teaching and learning supplemented by an online CALL component delivered through a learning management system" (Grgurović 2011:100). However, what Siemens and Tittenberg (2009:16) refer to as **augmented learning** is more appropriate for the research site, a teaching approach where regular classes are held and then ICT tools are integrated into the existing curriculum. In the context of the present study the NUST e-Learning Policy (PoN 2010:3) defines blended learning as “a form of learning which combines traditional instruction, print-based and multi-media delivery with online instructions”. Thus, in the context of this study the two concepts, blended and augmented learning, were not much separated from each other and were sometimes used interchangeably.

1.11.2 Constructivism

Constructivism originates from the work of John Dewey (1859-1952). Other key constructivist theorists are Jerome S. Bruner (1915-2016) and Jean Piaget (1896-1980) whose work concentrates on cognitive constructivism; and then Lev S. Vygotsky (1896-1978), who is associated with social constructivism, another branch of constructivism. One of the assumptions of constructivism is that people learn or create knowledge by interacting with others and the tools available in their learning environment (Powell & Kalina 2009:247). It is thus tools that facilitate interaction and collaboration. Taber (2011:40) explains how constructivism as an educational theory entails three key aspects: how people learn, factors that facilitate learning, and how a learning environment (curriculum and instruction) should be designed.

1.11.3 e-Learning

Research literature ascribes a variety of terminologies to online learning, such as e-learning, Internet learning, virtual learning, web-based learning, computer-assisted learning and others (Ally 2011:16). In the context of this study e-learning should be understood the same way Ally (2011:16) explains the concept of online learning, that it is the context in which “the learner uses some form of technology ... to access the learning materials, (that) the learner uses technology to interact with the tutor or instructor and with other learners (students), and that some form of support is provided to learners (students)”.

1.11.4 English as a Second Language (ESL)

The students who learn ESL have already knowledge or mastery of another language, their first language. This first language interference is sometimes problematic as it causes confusion to students in the process of learning the second language (L2). In Namibia, however, English is used as the official language, a situation that puts students' ESL under enormous pressure to be competent users of all domains of the English language: speaking, reading, writing and listening. The main challenge associated with this situation is the fact that in reality, for the majority of Namibian students, English could be their third or even fourth language, thus leading to enormous challenges regarding the use of English for academic purposes.

1.11. 5 Language of teaching and learning

English is used as the official language in Namibia and is taught as L2 in government schools. In this study language teaching and learning is referring to English as a Second Language (ESL). It is the teaching of ESL courses which cover the four domains of language, namely, writing, reading, speaking and structured listening. Students are taught at basic, intermediate and advanced levels, depending on the course level. Studies in the field of L2 learning and acquisition, for instance Krashen (2013:4), classify the language skills into two categories: input and output skills. Input skills refer to reading and listening, while output skills are speaking and writing, and this is how these concepts should be understood in this study.

1.11.6 Moodle

Research literature defines Modular Object-Oriented Dynamic Learning Environment (MOODLE) as “a course management system for online learning” (Brandl 2005:16). It is a Virtual Learning Environment (VLE) which makes it easy to provide online support for a variety of courses, and its design is based on the principles of constructivist pedagogy (Brandl 2005:16; Suppasetsee & Dennis 2010:33). However, the acronym MOODLE is sometimes used as a word, Moodle, and this is how it is used in the context of this study. Moodle is to a large extent used as a platform to supplement face-to-face teaching in the study context, meaning it is an online course management tool that is used for hybrid or blended learning at institutional level.

1.11.7 Moodle tools

As used in this study, Moodle tools are the features or applications available on the Moodle e-learning platform to facilitate knowledge creation in a variety of ways, thus enhancing the teaching and learning process. These are Moodle features that can be effectively exploited for ELTL, such as the built-in glossary for vocabulary development, tools for setting quizzes, and tools for uploading text-based documents and multimedia resources such as video and audio files (Brandl 2005:18). Bernsteiner, Ostermann and Staudinger (2010:175) explain how some of these tools are group tools that can be effectively used for collaboration with each other, such as discussion forums and wikis.

1.12 STRUCTURE OF THE DISSERTATION

Chapter One: Orientation and background

This chapter introduces the study. The chapter commences with background information regarding the context. The significance of the study is presented by highlighting how the findings of the study would contribute to theory. The research problem is briefly discussed, as well as the research questions that guided the investigation of the problem. The research design and methodology are also briefly introduced, whereby the selection of the research strategy, population, sample and procedures for collecting and analysing data are revealed. Trustworthiness of the study and ethical considerations are also briefly highlighted. The key concepts of the study are defined before the chapter ends by presenting a summary of each of the chapters in the thesis.

Chapter Two: Theoretical underpinnings of the study

This chapter entails the review of literature regarding theories on which the study was founded. The chapter starts with a brief analysis of Second Language Acquisition theory whereby two of Krashen's (2013:1-5) five hypotheses that inform language acquisition theory are singled out and discussed. Next, the traditional learning theory of behaviourism is reviewed, pointing out how it led to cognitivism which then paved the way for the two branches of constructivism: cognitive constructivism and social or socio-constructivism on which the study was founded. The strengths, related assumptions and limitations of these theories are highlighted. An analysis of these theories leads to the discussion on how learning should be understood in the context of this study.

Chapter Three: Conceptualising the use of Information Communication Technologies in English Language Teaching

This chapter of the literature review discusses the conceptual framework on which the study was founded. The chapter provides a platform where issues and debates surrounding the use of Information Communication Technologies (ICTs) in English language teaching (ELT) are critically analysed in light of previous research findings. Debates surrounding the use of Moodle in ESL teaching and learning are also imparted. In addition, a review of how ICTs are being used for teaching and learning in both developed and developing countries is presented to identify best practices and

challenges that are experienced. Furthermore, examples of good practices for using ICTs, and Moodle specifically, in different ESL contexts, derived from the literature review and findings from other studies, are provided. This leads to a discussion on Moodle and its mediating tools and how they feature in constructivist thinking.

The chapter further presents the perceptions of students on the use of Moodle tools for ELT in other contexts, and suggestions they have given for the enhancement of the Moodle platform. Finally, the challenges to effective implementation of ICTs, and Moodle specifically, are discussed to provide insights into how challenges and barriers could be turned into opportunities and also serve as complementary guidelines or strategies for effective use of Moodle in ESL instruction, especially in developing economies.

Chapter Four: Research methodology

The chapter presents the research design and methods. Prior to the design and methods, the research paradigm adopted is presented, as well as the research approach that was deemed fit for the study. This is followed by a lengthy discussion on the research methods where the research site, sampling methods and data collection and analysis procedures are explained. The reasons behind the selection of the design and methods are also provided, as well as the shortcomings of the selected design and methods. Then, the chapter explains the measures that the researcher put in place to ensure the validity of the study. Ethical considerations pertaining to the study are catered for, starting with seeking ethical clearance from the institutions involved in the study, and adhering to ethics regarding the use of human participants.

Chapter Five: Analysis, findings and discussion

This chapter presents an analytical framework adopted to analyse and interpret the data and then presents the findings of the study. The data analysis approach that was adopted in this study is explained. Inductive analysis was used to analyse interview and observation data, whereas a deductive approach was employed for the analysis of documents. Data were broken into manageable pieces and coded. The analysis then led to the emergence of themes that were analysed further for patterns and categories to be discovered. Finally, a narrative description of what was found is presented with reference to the research questions and objectives.

Chapter Six: Summary, conclusions and recommendations of the study

The findings of the study are presented in this chapter with reference to the objectives of the research and the research questions. The chapter presents a review of literature and the empirical study, as well as the synthesis of the findings of the study. Also, the guidelines for effective use of Moodle in ESL teaching and learning in a developing context are proposed, based on the findings of the study. Furthermore, the chapter highlights the limitations of the study, whereby potential problems arising from the research are highlighted. Based on the results of the study, recommendations are made to the department that was involved in the study, the institution where the study was conducted and also to the key stakeholders in the Namibian education sector, to establish how educational practices could be enhanced. Recommendations for future research are also imparted.

1.13 CHAPTER SUMMARY

This chapter presented an overview of the qualitative study on the use of Moodle in ESL teaching and learning. Firstly, the chapter opened with an overview of the use of technology for teaching and learning at the global level, which then led to a discussion on the use of technology for teaching and learning in Namibian higher education, with emphasis on the use of Moodle for ESL teaching and learning. The lack of studies on the use of ICT tools in ELTL in Namibia was also acknowledged. The problem to be investigated was introduced, and the need to explore and establish how Moodle tools are being used for ESL teaching and learning in the Namibian higher education context was raised. This was followed by the objectives of the study and the research questions that guided the inquiry. In addition, the aim of the research and its significance were pointed out to establish why it was worthwhile to conduct a study of this nature.

Additionally, the chapter presented a section on the research design in which the research paradigms, the research approach and methods were explained, including methods for data collection and analysis. Ethical concerns and trustworthiness of the study were also addressed. Finally, the key terminologies of the study were defined, and then the overall structure of the thesis was presented.

The next chapter presents a brief overview of key learning theories that guided this study, as well as selected Second Language Acquisition (SLA) theories that guided the conceptual framework of the study.

CHAPTER TWO: THEORETICAL UNDERPINNINGS OF THE STUDY

2.1 INTRODUCTION

This chapter covers the review of literature regarding theories on which the study was founded. These are the theories that shape understanding of the processes involved in teaching and learning. The chapter starts with a brief analysis of technology and SLA theory, and two of Krashen's (2013:1-5) five hypotheses that inform language acquisition theory are singled out and discussed.

Furthermore, the traditional learning theory of behaviourism is reviewed, pointing out how it led to cognitivism which eventually paved the way for the two branches of constructivism: cognitive constructivism and social or socio-constructivism on which the study was founded. The strengths, related assumptions and limitations of these theories are highlighted. Then, there is a brief discussion on the link between theory and the use of technology in education. An analysis of these theories leads to a discussion on how learning should be understood in the context of this study.

2.2 TECHNOLOGY AND SECOND LANGUAGE ACQUISITION THEORY

A brief review of language pedagogy theory is essential. Researchers in the field of language and technology are of the assumption that for technology to be integrated effectively into the language classroom, it needs to be linked to SLA theories (Jarvis & Krashen 2014:1; Petrie & Avery 2011:10). Explained briefly, SLA is "the study of the processes through which learners (students) acquire a new language" (Beatty 2010:86).

Krashen (2013:1-5) identifies five hypotheses that shed light on language acquisition theory: the acquisition-learning hypothesis, the natural order hypothesis that concentrates on the link between the acquisition of grammar structures and the background or environment, the monitor hypothesis that focuses on the relationship between language acquisition and learning, the affective filter hypothesis that explains the link between affective factors and language acquisition, and the comprehension hypothesis. These hypotheses on how people learn L2 arise from the monitor model, which is an important theory of L2 learning. According to Gass, Behney and Plonsky (2013:129), it is debates surrounding the behaviourist theory that have paved the way

for the monitor model. Two of the monitor model hypotheses are singled out and discussed briefly below as they are deemed more relevant for the purpose of this study in comparison with others: the acquisition-learning hypothesis and the comprehension input hypothesis.

2.2.1 The acquisition-learning hypothesis

The acquisition-learning hypothesis suggests that language is acquired involuntarily, while SLA theory conceptualises language learning as a conscious process (Krashen 2013:1). As this research aimed to investigate the use of Moodle in English language teaching and learning among lecturers and students, the concept of language learning was more applicable than language acquisition. This is founded on the fact that these were mature students who had already acquired basic L2 skills and have been using L2 for a number of years, although not effectively as they were still in the learning process. Nevertheless, irrespective of students' levels of language acquisition or development, it is an undeniable fact that learning technologies (including Moodle) have a role to play in language production and development (Jarvis & Krashen 2014:1; Jose and Raya 2011:2; Penãfiel et al 2016:98; Petrie & Avery 2011:12). It is thus sensible to use ICT tools as mediators of language teaching and learning, developing the domain of ELTL in the process.

2.2.2 The comprehension input hypothesis

In the comprehension input hypothesis, Krashen (2013:3) is of the opinion that people acquire language when they understand what has been presented. The input and better understanding of this input is facilitated by the language that has already been acquired. Krashen (2013:3) further explains how the input should be combined with our knowledge of the world and the context in which acquisition takes place. This leads us to the concept of comprehensible input (Krashen 1985:100). In accordance with SLA theory, the key principle of comprehensible input is that students should be able to understand the content presented to them; but for students to learn effectively, the L2 input should be a bit more difficult than what the students already know (Li 2013:218). This is what some linguists refer to as "linguistic complexity", a level of language above that of the students (Li 2013:218).

Considering technology mediated L2 learning, “technology is a convenient tool to increase comprehensible input” (Li, 2013:219). Jarvis and Krashen (2014:1) explain how technology facilitates “visual, aural and written input”, thus optimising language learning and acquisition.

Criticism has been levelled at the input hypothesis, based on the fact that “input” cannot be equated with “intake”, meaning exposing a learner to the new language does not serve any purpose if the information is incomprehensible to the learner (Gass et al 2013:340). This scenario leads to debates on Krashen’s (1985) comprehensible input hypothesis as illustrated in the following section where comprehensible output is also discussed.

2.2.3 Comprehensible output

Although partially in agreement with Krashen’s (1985) comprehensible input theory, in the comprehensible output theory Merrill Swain argues that the act of producing language is more important than just the input that students get from the teachers (Van Patten & Benati 2010:119). The act of producing language is also linked to what some researchers regard as output language skills: speaking and writing, while listening and reading are regarded as input language skills (Pae 2012:1). Gass et al (2013:357) state how comprehensible output has potential to develop grammar and language structures as it forces the learner to use the language more accurately. Also, a study on the affordances of Moodle forums, quizzes and glossaries that was conducted by Hirschel (2012:100) reveals how the forums afforded opportunities for comprehensible output to a large extent. Thus, as the input language skills of listening and reading alone are insufficient to optimise language learning, speaking and writing skills are also essential to enable students to produce the language. Hence, comprehensible output has a key role to play in the process of L2 learning, pointing to the need to provide opportunities for students to produce more language for them to notice what they still need to learn.

To optimise comprehensible output, the Internet has revolutionised the production of text as it opens doors to a variety of tools that afford opportunities for language production. For example, in writing that facilitates output skills, production should not be limited to classroom level as students can write collaboratively with other students

across classes, between educational institutions, or even between different countries. Again, asynchronous communication tools such as blogs, wikis, chat and email enable collaborative creation of content through interaction with peers, thus facilitating comprehensible output (Motteram 2013:23). This facilitates the development of the domain of ELTL. Besides the comprehensible input theory, negotiation of meaning has also been acknowledged to be another factor that contributes to L2 learning and acquisition, as explained below.

2.2.4 Negotiation of meaning

Even though negotiation of meaning is not part of the monitor model per se, it is part of SLA theory and has a crucial role to play in comprehensible input and output hypotheses. Gass et al (2013:349) explain negotiation of meaning as “instances in conversation when participants need to interrupt the flow of conversation in order for both parties to understand what the conversation is about”. Negotiation of meaning has a role to play in L2 learning and acquisition in that it creates a platform for students to produce more language (Motteram 2013:48). This enables students to produce both comprehensible input and output skills as they need to listen to others, read what others have written, and also respond to what others have to say in speaking or writing.

Negotiation of meaning occurs when meaning is not clear between the speaker and the listener, thus creating a platform for the speaker to produce more language in the process of clarifying the message or utterance that is vague (Van Patten & Benati 2010:116). When meaning is not clear the learner is forced to make the language or utterances clear through negotiation of meaning with others. Motteram (2013:48) explains how technology-based teaching environments create more opportunities for negotiation of meaning compared to a traditional classroom setting, such as by interacting with students from different parts of the globe. This is how the concept of collaboration comes into play, referring to creating opportunities for students to engage in collaborative activities as it presents opportunities to negotiate meaning when concepts are not clear.

Beatty (2010:109) defines collaboration as “a process in which two or more learners (students) need to work together to achieve a common goal, usually the completion of a task or the answering of a question” and it can be demonstrated by tasks such as

listening to others and giving suggestions and opinions. These examples fit in well with Krashen's (1985) comprehensible input hypothesis, such as listening to others, as well as Swain's (2000) comprehensible output hypothesis, such as giving suggestions and opinions. Merging the two entities is what students need to optimise L2 learning and acquisition.

A number of researchers acknowledge that there are computer activities that are able to provide a high level of comprehensible input in various media (Jarvis & Krashen 2014:1; Motteram 2013:100). For example, a variety of ICT tools, such as Moodle, can be effectively used for students to collaborate in the process of L2 learning, such as when chatting, preparing PowerPoint presentations and blogging. Again, among others, Motteram (2013:22) explains how technologies such as podcasts and video clips enhance pronunciation, and also develop vocabulary skills. When used in accordance with relevant learning theories that are described in the next subsection, these technologies have the potential to optimise L2 learning and acquisition. As the input hypothesis is a branch of the monitor model that has emerged from deliberations on the behaviourist theory of learning (Gass et al 2013:129), this necessitates a review of the key theories of learning. Hence, behaviourism and constructivism are discussed next to establish the link between learning theories and the use of ICTs in teaching and learning.

2.3 OVERVIEW OF LEARNING THEORIES

As defined by Mitchell, Myles and Marsden (2013:2), a theory is "a more or less abstract set of claims about the entities which are significant within a phenomenon under study, the relationships which exist between them and the processes which bring about change". Three key terms that serve as guidelines for understanding of theory emerge from this definition: claims, relationships and processes. The claims attributed to selected learning theories, the relationship between these theories, as well as processes are highlighted in the subsections that follow. Van den Berg (2017:75) defines learning theory as "a research-based explanation of how learning takes place: how individuals acquire, retain and recall knowledge". Thus, based on these definitions, this chapter discusses how the learning processes take place, the relevant teaching approaches that optimise learning based on the principles of selected theories, and the relationship between these theories.

An overview of traditional learning theories is essential as these theories shape understanding of how learning should be understood in the context of this study. All learning theories are interrelated in one way or another as more recent theories have been developed to cater for weaknesses that had been identified in older theories, or simply to expand them. Consequently, the changing nature of societies necessitates theories to evolve in order to effectively cater for the changing needs of societies. To provide a broader picture of this notion, Ozola and Purviņš (2013:137) emphasise how “good teaching and learning requires teachers to create and use, expand and reject, construct and reconstruct theories of teaching and learning”.

Two key learning theories, behaviourism and constructivism, are reviewed in this subsection. Nevertheless, although not discussed at length as it is beyond the parameters of this work, cognitivism is another theory that shapes our current understanding of learning processes, and it serves as a link between what the researcher of this study refers to as the “mother theory”, behaviourism, and constructivism. In short, all learning theories are interrelated, but the “mother theory”, behaviourism, has been singled out and discussed due to the fundamental role it has played in the development of L2 acquisition theories and all other learning theories, including contemporary theories that are not discussed in this work.

2.3.1 Behaviourism

Ozola and Purviņš (2013:133) explain how behaviourism originates from the work of Skinner (1904-1990) and assumes that learning is a product of desired behaviour, without considering mental processes. The disregard for mental processes in learning has been identified as a major defect of behaviourism. The behaviourists’ school of thought views learning as a product of experience and the environment, based on the assumption that learning is influenced by conditioning processes, which result from repeated training and drills involving rewards and punishments aimed at reinforcing desired behaviour or discouraging undesirable behaviour (Ravenscroft 2003:5). The role experience and the environment play in the learning process is still of utmost importance in contemporary education, thus adding value to behaviourism.

Skinner was of the assumption that human behaviour is dependent on physiological responses that result from external stimuli, and how one responds is controlled by using rewards and punishments to encourage desired behaviour or to discourage undesirable behaviour (Zhou & Brown 2015:4). To expand on this notion, Ally (2011:19) explains how behaviourists are of the assumption that learning of any behaviour is based on the stimulus in the learning environment and how students respond, whereby positive response is reinforced until it becomes a habit, while the negative response is not rewarded, so it is abandoned. Thus, behaviourists are of the opinion that language learning is a habitual process involving trials and errors until the desired behaviours are produced (Ozola & Purviņš 2013:133). This explains the need for educators to create more learning opportunities that accommodate the errors students are likely to make in the process of L2 learning.

Furthermore, behaviourists are of the assumption that it is the world that shapes individuals as the learner comes to instruction with little or no background knowledge (Zhou & Brown 2015:4). Again, behaviourists view learning as observable learned behaviour involving actions (Zhou & Brown 2015:4). This links well with the use of Moodle as an e-learning tool as it facilitates a platform for observable actions. However, although behaviourism has played a role in the development of other theories, it was not a fitting theory to adopt in this study that involved adult students, tertiary level students with sufficient background and experience of L2 learning. These students did not come to instruction without previous learning experience, and repetitive drills could be improper for adult students. Other criticisms of behaviourism emerging from the review of literature are presented next.

Criticism of behaviourism

Like any other theory, a few criticisms have been levelled against behaviourism. One minor critique stems from the fact that some teachers mistakenly interpret negative reinforcement to be punishment (Zhou & Brown 2015:7), which is not the case. Furthermore, behaviourism has been criticised for being “too prescriptive and pre-structured”, in the sense that even minor mechanical errors could not be attended to as the theory does not accommodate diagnostic or explanatory strategies (Ravenscroft 2003:5). Perhaps this is still an area of exploration among language

educators. Also, the predetermined outcome of learning has been criticised for not taking into account other types or different ways of learning, and students' mental processes and opinions (Kanuka 2011:105; Van den Berg 2017:76). It is on this basis that educators should create learning environments that accommodate a variety of learning styles whereby students are also free to express their opinions.

Likewise, Ravenscroft (2003:5-6) argues that the theory does not make provision for intervention when a learner deviates from prescribed tasks, as no provision is made for "experimentation, dialogue, reflection and 'higher level' conceptual thinking and reasoning". Regarding deviation from prescribed tasks, the gap is filled by providing feedback to students in contemporary education. With insight from Gass et al (2013:359), feedback provides students with information regarding their success or lack of, or how to enhance language production or comprehension. This paves the way for students to reach high levels of conceptual thinking and reasoning.

Also, although not the focus of this work, Bandura's social cognitive theory, that takes into account both social and cognitive aspects of learning, is in itself a critique of behaviourism. Bandura believes that "people are active participants in their environment and are not simply shaped by that environment" (Zhou & Brown 2015:19). This contradicts the behaviourist assumption that it is the world that shapes people, as stated in the previous subsection. Although this statement is presented here as criticism, it also serves as an example of how theories are interrelated, illustrating how the Bandura theory builds on the work of Skinner. Another key learning theory, constructivism, which also builds on the work of early theorists, is discussed next.

2.3.2 Constructivism

Constructivism is another theory that explains how people acquire knowledge and learn, and this is the theory that was regarded fitting for the current study as it caters for both cognitive and affective domains of learning. Mayes and de Freitas (2004:15) provide an in-depth explanation of constructivism, which originates from the work of John Dewey (1859-1952). Other key constructivism theorists are Jerome S. Bruner (1915-2016) and Jean Piaget (1896-1980) whose work concentrates on cognitive constructivism, and then Lev S. Vygotsky (1896-1943), who is associated with socio-cultural constructivism, another branch of constructivism. Cognitive constructivism

maintains that “learners (students) do not copy or absorb ideas from the external world but must construct their concepts through active and personal experimentation and observation” (Mayes & de Freitas 2004:15). Olusegun (2015:66) shares the same sentiment, explaining further how constructivism is based on the assumption that people construct knowledge by relating new knowledge to previous experiences, and how the context plays a key role in the learning process. This notion opposes direct teaching of content in the behaviourist paradigm that is believed by constructivist theorists not to produce better understanding.

Powell and Kalina (2009:241) emphasise how an effective constructivist learning environment should combine both cognitive and social constructivism. Ozola and Purviņš (2013:133) point out that behaviourism paved the way for cognitive constructivism which aimed to emphasise the significance of mental processes of learning. This is a deficiency that has been identified in behaviourism, also illustrating the link between these theories.

Another reason why constructivism is relevant as Van den Berg (2017:81) states, “the rapid development of technologies to support learning makes constructivism (and connectivism) more relevant than theories that focus on knowledge transmission”. Behaviourism emphasises a teacher-centred approach as the teacher is regarded as an expert that transmits knowledge to the students, rather than involving the students in construction of knowledge. This emulates a typical traditional classroom setting, and this is how technology becomes useful to afford opportunities whereby students assist each other to produce the language, thus constructing knowledge. For example, this can be done by employing a variety of learning tools that technology has the potential to offer. Other key tenets of the constructivist theory of learning are imparted in the following subsection.

2.3.2.1 Key principles of constructivism

In light of deliberations in the preceding section, constructivists view learning as construction of knowledge by individuals as opposed to transmission of knowledge and content from the teacher to the learner in the traditional way of teaching (Ally 2011:30; Bernsteiner et al 2010:177). In other words, the learner is regarded as an

active participant in the process of constructing knowledge, as opposed to being a passive receiver of knowledge, and this is how the concept of learner-centredness features in constructivism. It is on this basis that as educators we need to engage students actively in the process of constructing knowledge, to own the learning process.

However, the learner is not alone in the learning path. This is what gives birth to social constructivism. Social constructivism, that is more contemporary, expands on constructivism as another branch of constructivism, the other one being Piaget's cognitive constructivism. It originates from the work of Vygotsky's socio-cultural historical theory (CHAT), and it expands on constructivism in that it takes into account the role interaction with the context and others plays in the process of creating new knowledge (Li 2013:218). In the context of ELTL, the new knowledge can be translated into a combination of new language forms and skills. In line with social-constructivist thinking, it is discussions and interactive discourse that better facilitate this type of learning, whether it is in a face-to-face context, online or a hybrid learning environment.

Constructivists acknowledge the need for the educator to guide and advise the students in the learning process, and this is how the concept of scaffolding evolves (Ally 2011:30). Van Patten and Benati (2010:144) define scaffolding in terms of language acquisition as a process in which a more proficient speaker provides assistance to another learner. Powell and Kalina (2009:244) provide a comprehensive definition of scaffolding as "an assisted learning process that supports the zone of proximal development (ZPD), or getting to the next level of understanding, of each student from the assistance of teachers, peers or other adults". It is thus a process in which those who are knowledgeable provide guidance to those who are less knowledgeable in the process of learning. It is this type of guidance that enables students to reach the ZPD that Mayes and de Freitas (2004:18) define as "the distance between a learner's current conceptual development and that learner's potential capability, as measured by what can be accomplished". This illustrates the link between scaffolding and ZPD as it is scaffolding that enables the learner to reach the ZPD. Again, this is also how feedback from the instructor and interaction with other students play a role in the learning process, enabling the students to reach the ZPD.

Ally (2011:30) further explains how constructivism is based on the principle that effective learning takes place when teachers and students communicate effectively by using constructivist approaches, for example, by using tools and interacting with tools and the environment. Constructivism is thus based on the assumption that students learn or create knowledge better when given opportunities to construct their own knowledge through interacting with others and the tools available in their learning environment (Ally 2011:30). These mediating tools facilitate interaction and collaboration in the process of constructing knowledge, and this is how Moodle is perceived to be a mediating tool in this study.

The importance of interaction, guidance and the use of tools in the learning process are some of the key tenets of Vygotsky's (1978) socio-cultural historical theory of learning, which is also rooted in constructivism and focuses on "higher mental processes" (Ravenscroft 2003:9). This theory is based on the assumption that "development depends on interaction with people and the tools that the culture provides to help form their own view of the world" (Zhou & Brown 2015:30). Again, this line of thinking supports the use of Moodle as a mediating tool in this study, thus facilitating various forms of interaction in the learning process. Also, of significance here is the fact that the element of human touch is equally essential in the learning process when learning is mediated by tools. Drawing on these deliberations, constructivism is based on the principles that:

- Knowledge is actively constructed by the learner based on understanding;
- Learning is based on what we already know, or what we are already able to do;
- Learning is self-regulated;
- Learning is goal-oriented; and
- Learning is cumulative or collective (Mayes & de Freitas 2004:16).

The summarised view of learning, above, guides how learning should be interpreted in the context of this study that adopts a social-constructivist approach to learning. Unlike in a behaviourist approach where the teacher is regarded as an expert, in the social-constructivist model the teacher is rather viewed as a facilitator, guiding the

students to construct new knowledge by using their understanding and experiences (Mayes & de Freitas 2004:19).

Another key tenet of social-constructivism is that it facilitates collaboration which enables negotiation of meaning when students are working with one another to construct new knowledge. Constructivists view learning as “a process by which learners (students) construct new ideas or concepts by making use of their own knowledge and experiences” (Beatty 2010:99). When the students create their own knowledge, it makes them active participants in the learning process. The ability to use one’s own knowledge and experiences in order to construct new ideas is more fitting for adult students, a fact that rendered social-constructivism a fitting theory for this study which involved adult students.

Also, as stressed above, constructivism, specifically social-constructivism, views learning as a social process rather than a product. Likewise, negotiation of meaning, the stage where students are likely to make mistakes, is a social learning process, which eventually leads to the end-product: new knowledge or ideas. The use of ICTs in education facilitates opportunities for negotiation of meaning as it affords abundant networking tools that could be used for teaching and learning. This discussion ties in well with the next section that elaborates on the link between constructivism and the use of ICTs in education.

2.3.2.2 Constructivism and the use of ICTs in education

Constructivism has been proven to be beneficial in the design and development of online learning or e-learning programmes (Jonassen & Rohrer-Murphy 1999:61; Sultan, Woods & Koo 2011:150). A constructivist paradigm allows the design of materials that, amongst others, are learner-centred and facilitate interaction and guidance in the process of learning. Ally (2011:16) explains how different terminologies used to define online learning point to the fact that “the learner uses some form of technology to access the learning materials, (that) the learner uses technology to interact with the tutor or instructor and with other learners (students), and (that) some form of support is provided to learners (students)”. This is an example of a learning design based on constructivist thinking, where interaction plays a major

role. In terms of using technology in teaching and learning, it is the technological tools that mediate better interaction with the content, other students, the instructors and the environment, leading us to the concept of collaborative learning. Collaborative learning is thus facilitated better by technological tools, and it is an instructional strategy that is grounded in social-constructivism, whereby the tools facilitate interaction and communication among the students in the process of creating new knowledge (Bernsteiner et al 2010:177; Li 2013:219; Olusegon 2015:68).

In the light of this study, Brandl (2005:16) reveals how the design of Moodle tools fits in with the constructivist pedagogic model. A pedagogic model is a theoretical construct on which instructional strategies are based, and it is derived from learning theory (Dabbagh & Bannan-Ritland 2005:203). This explains how it is the theory that determines relevant teaching and learning strategies. Reverting to Moodle as an ICT tool, it affords a platform for students to access information, to interact with content, and educators, as well as with other students in the process of constructing knowledge.

Finally, understanding of the context or the environment in which learning takes place is an equally important factor when ICT tools are being used. Alluding to Vygotsky (1978), interaction with a tool is a joint-mediated activity involving many other factors, including the context. This study, among others, investigates the interactions of the participants while using Moodle tools, and the consequences of their actions on the people concerned. The context or environment has a major impact on the interactions and actions of the participants in the study while using Moodle as an ICT tool. Like other theories, constructivism has its shortcomings that are imparted in the next section, and it is due to these criticisms that more contemporary theories of learning have emerged.

2.3.2.3 Criticism of constructivism

One of the shortcomings of constructivism is that it does not explicitly represent a theoretical position in education (Bernsteiner et al 2010:178). Therefore constructivism, for example, cannot be completely understood without mentioning its link to cognitivism and behaviourism. Another critique is that students do not only

construct their own knowledge; they also produce knowledge for other students in the process (Bernsteiner et al 2010:179). Thus, constructivism has to depend on existing or emerging learning theories. Piaget's cognitive constructivism has been criticised for emphasising individual interaction with the environment in the process of learning, while human learning involves a social aspect of interaction with others (Taber 2011:49). This is what has led to Vygotsky's (1978) socio-constructivism.

The use of Logo programming language by Papert to support intellectual development and the learning process has also been questioned, as some critics were of the opinion that Logo enabled students to only think in a "Logo way" (Ravenscroft 2003:7). This translates into the fact that students' thinking abilities had been constrained by the instructional strategy that was in practice.

Not many criticisms have been levelled against social-constructivism. One of them, the use of tools in social-constructivism, has been criticised, in that tools have the potential to either enable or constrain activity, depending on their affordances (Mayes & de Freitas 2004:18). This prompts the need to explore and establish how Moodle as a learning tool enables or constrains activity.

Irrespective of criticism levelled against constructivism and its sub-branches, Ally's (2011:20) comparison of the three schools of thought: behaviourism, cognitivism and constructivism, attributes high-level thinking skills to constructivism. Ally (2011:20) further explains how constructivism better promotes contextual or situated learning through the application of new knowledge to new situations. This, among others, explains why constructivism was singled out from other learning theories and was thus considered relevant for this study.

In conclusion, it is worthwhile to consider that there are a number of other theories that could have been applicable to this study. These theories were not adopted as they were deemed less relevant compared to the theories discussed above. In light of social-constructivism that mainly framed this study, the following subsection presents a summarised view of how a constructivist learning environment should be understood in this study.

2.4 A CONSTRUCTIVIST LEARNING ENVIRONMENT

The preceding discussions provide a framework for understanding a constructivist learning environment in the context of this study. As is generally believed, it is the learning theories that shape the way we teach, the teaching methods, a view Olusegun (2015:66) concurs with. Based on the preceding deliberations, a constructivist learning environment is based on the principles of collaboration, interaction and guidance in the process of constructing knowledge, and should give students an opportunity to apply or contextualise new knowledge. In the same vein, Olusegun (2015:67) stresses how learning that is closely linked to constructivist thinking has the potential to enhance the learning process, a situation that compels instructors to create similar learning environments. Bernsteiner et al (2010:177) present key principles of a constructivist learning environment, such as attributes of authentic learning, negotiation of meaning by individuals in the learning process through interaction, and provision of feedback and reinforcement. Similarly, Olusegun (2015:68) presents a summarised view of a constructivist learning environment on which the next subsections are based. It is worth mentioning that these viewpoints of different scholars on constructivist learning environments are founded on the work of Jonassen and Rohrer-Murphy (1999).

The summarised view of a constructivist learning environment presented by Olusegun (2015:68) serves as a foundation of how learning should be understood in this study as elaborated in the subsections below, whereby learning involves construction of knowledge and is mediated by tools, is viewed as an interactive process, is situated in context, is shaped by guidance and reflective thinking, and is goal directed. Again, these principles are in alignment with what Li (2013:218) identifies to be the best practices that ESL instructors can employ to enhance classroom instruction, that are:

- using several strategies to increase comprehensible input;
- encouraging social collaboration to increase opportunities for interaction;
- relating learning to the real world to promote authentic learning experiences;
- and
- providing supportive learning environments.

In light of these deliberations, a summarised view of the learning environment that is closely linked to constructivist thinking and promotes learning is presented below.

2.4.1 Learning as active and collaborative construction of knowledge

In the context of this study, learning is understood as active and collaborative or joint creation of knowledge, among others. This assumption is based on constructivist thinking that emphasises a learner-centred approach as opposed to direct transmission of knowledge by the instructor (Taber 2011:58). Collaboration refers to creating opportunities for students to interact and express ideas and thoughts in collaboration with peers (Li 2013:219). This facilitates joint construction of knowledge as well as a platform to negotiate meaning, thus enhancing comprehension. These initiatives optimise the language learning process.

Dabbagh and Bannan-Ritland (2005:217) exemplify how asynchronous and synchronous communication tools can be used to promote collaborative learning in an online learning environment. Ally (2011:17) explains asynchronous communication tools as tools that students can access online anytime, while synchronous communication tools are tools that facilitate real-time interaction, for example between the student and other students or the instructor. In the context of ELT and technology, for example, a discussion forum can be used as an asynchronous tool to collaboratively brainstorm ideas to strengthen arguments in a piece of writing, thus engaging students actively. Similarly, as an online tool Moodle affords features that can be exploited for collaborative learning in the process of knowledge creation, including discussion forums.

2.4.2 Learning as a process mediated by tools

As an online learning management system, Moodle is designed based on constructivist pedagogy as it encourages discovery and inquiry-based learning, thus affording opportunities for interaction, sharing, and providing feedback in the process of learning (Brandl 2005:16). Similarly, while explaining the link between constructivism and technology, Van den Berg (2017:79) mentions how an LMS falls into the category of ICT tools that facilitate collaborative and social learning.

In terms of L2 learning and technology, Moodle affords opportunities for language teaching and learning through its various embedded tools that provide opportunities for enhancement of the four language skills of reading, writing, speaking and listening. However, as was emphasised earlier, it is not the tools per se that enhance the learning process, but rather how the tools are used by the instructors and the students. It is thus deemed critical to understand how online learning tools should be applied in L2 teaching and learning. These assumptions point to the need to explore and ensure that people utilising online learning tools are skilful in using them in order to yield good results.

2.4.3 Learning as an interactive process

According to Gass et al (2013:348), the interaction approach facilitates L2 learning through exposure to the target language that is regarded as input, through the act of producing the target language that is regarded as output, as well as through the process of providing feedback. This explains how learning becomes an interactive process that requires social interaction. For example, Brandl (2005:16) supports the notion that the development of communicative skills in language learning requires social interaction between the instructors and students, and also among the students themselves. Li (2013:219) illustrates how technology provides abundant opportunities for L2 students to interact with peers in class and beyond, such as by using chat programmes, videoconferencing and e-mail. The online learning activities should thus provide opportunities for students to interact not only with the lesson content but also with the instructor, other students and the society at large.

Anderson (2011:58) has developed a theory that explains the types of interactions that enable the learner to develop social, collaborative and personal relationship skills, as well as to test and confirm ideas and eventually apply new knowledge. These are student-student interaction, student-content interaction whereby the student interacts with the lesson content, student-teacher interaction, teacher-content interaction that facilitates interaction between the instructor and the course content and activities, teacher-teacher interaction, and content-content interaction that involves interaction with automated sources of information (Anderson 2011:58). These types of interactions can be regarded as key elements of an ideal constructive learning environment.

2.4.4 Learning as a process that is situated in context

Situated learning refers to the link between learning activities and the context in which learning takes place, whereby students apply new knowledge to real life situations (Li 2013:218). This translates into the fact that students should be able to apply what they have learnt to their own contexts, including solving real problems in their own contexts, which leads to the concept of authentic learning.

Dabbagh and Bannan-Ritland (2005:205) define authentic learning activities as tasks in a real setting involving solving a problem, whereby students apply existing knowledge to new situations and problems. This is a necessary skill that students need in real life. Li (2013:219) explains how authentic learning tasks enable L2 learners to engage in complex tasks where they need to apply high level thinking skills. In the same vein, Anderson (2011:19) is of the opinion that “learners (students) learn best when they can contextualise what they learn for immediate application and personal meaning”. In light of language learning, Karabulut (2013:172) states that “access and exposure to authentic and comprehensible input is deemed to be essential for successful language learning”. However, comprehensible input should be merged with comprehensible output in order to maximise language learning, and it is through comprehensible output that students are able to apply new knowledge and skills to their environments. This stresses the need to adopt learning approaches that facilitate application of knowledge to real life situations.

2.4.5 Learning as a process where guidance and reflective thinking are essential components

Monitoring and guidance during the learning process are essential (Taber 2011:58). Providing guidance is what is referred to as scaffolding that was explained earlier in this chapter, a process whereby the teacher provides a support system when a task is difficult to perform. It is scaffolding that enables the learner to reach the ZPD in the learning process. Thus, students need to be supported or coached to become critical and active thinkers, through guidance and scaffolding. One way of offering guidance to the students is by providing feedback. In terms of Moodle specifically, Suppasetsee and Dennis (2010:44) emphasise how emotional support plays a role in the integration of Moodle, pointing to the need of a human touch element. Gass et al. (2013:359) state how feedback can be given explicitly or implicitly, and how

different ways of providing feedback have the potential to enhance both comprehensible input and output skills as per SLA theory.

In addition, Jonassen and Rohrer-Murphy (1999:70) state how guidance entails provision of information resources, but the resources and instructional materials that students use are not for transferring knowledge but are rather used to support students in the process of inquiring and acquiring knowledge. Taber (2011:49) explains how a constructivist learning environment encourages creative and reflective thinking during the process of learning so that the students reflect on their learning, thus optimising knowledge construction. This can be attained by, for example, probing students' knowledge when guiding them, thus challenging them. In a Moodle study that was conducted by Suppasetseree and Dennis (2010:39), Moodle was found to be beneficial for self-reflection, to the extent that students wanted to use it for the non-English courses as well.

2.4.6 Learning as a process that is directed towards a goal

Ally (2011:20-21) points out how it is deemed important for students to be informed of the expected outcomes of a lesson, and to test the students while learning in order to determine if the learning outcome has been achieved. This guides the instructor on the type of feedback to be provided. Moodle has embedded applications that can be used for assessment and feedback, and questions can also be embedded in Moodle lessons to assist students to understand the concepts.

An overview of a constructivist learning environment deliberated in this subsection whereby feedback and assessment facilitate attainment of the key educational goal is presented in Figure 2.1 below.

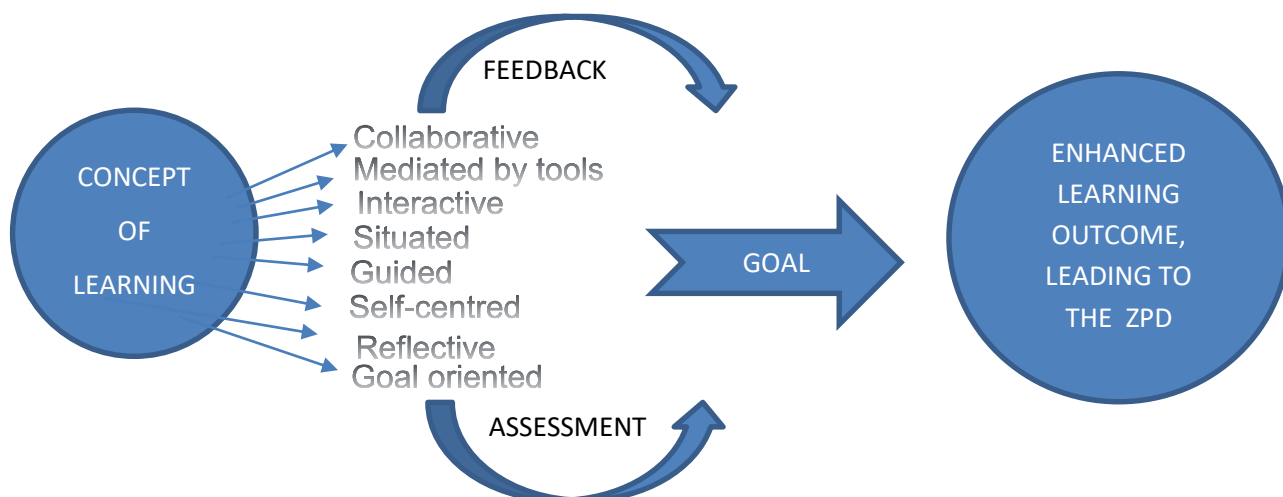


Figure 2.1 Overview of a constructivist learning environment (Source: Self-developed)

2.5 CHAPTER SUMMARY

This chapter presented an overview of SLA theory, as well as key learning theories guiding contemporary understanding of teaching and learning processes plus the complex concept of learning in this study. The chapter also briefly highlighted the reasons behind selecting theories that were deemed fit to guide understanding of the study. The efficiency of these theories in teaching and learning and the criticisms levelled against them were discussed, as well as the link between selected theories and the use of ICTs in ELTL. Finally, based on the key theory that built the foundation of this study, constructivism, a discussion of how the complex concept of learning should be understood in this study was presented.

The next chapter provides a platform where issues and debates surrounding the use of ICTs in ELTL are critically analysed with reference to previous research findings.

CHAPTER THREE: CONCEPTUALISING THE USE OF INFORMATION COMMUNICATION TECHNOLOGIES IN ENGLISH LANGUAGE TEACHING AND LEARNING

3.1 INTRODUCTION

This chapter of the literature review provides a platform where issues and debates surrounding the use of ICTs in ELT are discussed and critically analysed in light of the research questions of the current study and previous research findings. The chapter opens with a discussion on the use of ICTs in language teaching and learning in higher education, whereby different ICTs are discussed briefly, leading to a discussion on the use of LMSs in language teaching and learning.

In addition, there is a discussion on the use of Moodle for blended learning. The chapter then continues with a discussion on how LMSs have been used in both developed and developing countries, including Namibia, to emulate good practice. Furthermore, the chapter presents the perceptions of students on the use of Moodle for ELT, and the recommendations for enhanced blended learning in ESL using Moodle. Finally, the challenges to effective implementation of ICTs in general, and Moodle specifically, are discussed to provide insights into how the challenges and barriers could be turned into opportunities and serve as complementary guidelines or strategies for effective use of Moodle in ESL instruction, especially in developing countries.

3.2 ICTS IN ENGLISH LANGUAGE TEACHING AND LEARNING IN HIGHER EDUCATION

A number of studies acknowledge the benefits of using ICTs in ESL teaching and learning (Alhothli 2015:59; Jose & Raya 2011:2; Liu 2013:1). To substantiate this notion, Laakkonen and Taalas (2015:224) state that “technological development and globalisation have affected how, why and when we use language and for what purpose”. Penãfiel et al (2016:98) also acknowledge how the use of ICTs adds quality to educational programmes in higher education. Moreover, Jose and Raya’s (2011:2) study on techno-pedagogic practices that enhance English language skills revealed how multimedia technology has a key role to play in ELTL as it has the potential to

improve students' language skills to a great extent. In other words, there is much that can be done to use ICTs in ELTL, as they are believed to have some benefits, but it is also vital to note that this is an area that needs further research. As defined by Penãfiel, Navarrete, Vásquez and Luján-Mora (2016:98), ICTs are "a set of different technological tools and resources, used to communicate, develop, spread, save and manage information".

Nevertheless, it is worth noting that the intent behind using ICT tools, such as Moodle, is not to replace traditional face-to-face teaching with e-learning, but rather to afford a diverse teaching and learning experience to both instructors and students, a view shared by Alhothli (2015:58). In light of the findings from other studies, Richardson (2010:149) is of the opinion that using wikis, discussion forums and other social learning software in ELT is a way of transforming the curriculum, thus preparing students for the 21st century job industry whereby they need to interact and collaborate with other professionals to create and share relevant content online. This is the ideal world for which we, as educators, need to prepare students.

In the same vein, Karabulut (2013:162) is of the opinion that technology has benefits to language students as it provides new instructional opportunities for students to interact with native speakers through the web, as well as accessing a variety of language resources for input. For instance, in their study on effectiveness of technologies on language learning, Golonka, Bowles, Frank, Richardson, and Freynik (2014:89) established how chat programmes increase language quantity and quality in L2, meaning language production is increased. This notion of enhancement of students' output is in harmony with Swain's (2000) output hypothesis that was explained in the previous chapter as it gives students an opportunity to produce the language. Likewise, Gass et al (2013:357) and Hirschel (2012:100) support the notion that when implemented effectively, new technologies have the potential to change the content and the way language is taught.

One would concur that when implemented effectively, technology is likely to influence the way we teach English, especially in the context of developing countries. To authenticate this assumption, in their study on CALL and SLA interface, Plonsky and Ziegler (2016:32) established how students who participate in computer-based L2

instruction have better learning outcomes than students who only participate in traditional educational contexts. These examples point to the fact that technology has some positive effects on ELTL, thus the need to investigate and establish how a variety of tools were being used to enhance language teaching and learning.

However, due to the evolving nature of technology, there is a need for researchers to establish how L2 learning can be best supported and facilitated with new and emerging tools, including virtual worlds and online collaborations (Plonsky & Ziegler 2016:31). One such tool that is worth exploring is an LMS, whereby Moodle has been singled out from other LMSs due to its affordances, and is discussed in the following subsection.

3.3 THE USE OF LEARNING MANAGEMENT SYSTEMS IN ENGLISH LANGUAGE TEACHING AND LEARNING

Toland, White and Bolliger (2014:222) define an LMS as “web-based systems that utilise synchronous and asynchronous technologies for the purpose of delivering educational content and facilitating communication between course participants”. LMSs have become important tools for ELT in higher education (Toland et al 2014:222), attributed to the number of benefits they have for teaching and learning. Among these benefits, Jose (2015:27) mentions how Moodle reduces cultural differences that occur in face-to-face teaching. This could perhaps be attributed to minimal human touch that online learning facilitates in terms of student-student interaction. Dube and Scott (2016:176) present other benefits of an LMS - synchronous and asynchronous communication, development and delivery of course content, both summative and formative assessment, and for the management of online courses and their users. Jose (2015:26) mentions how various Moodle resources and activities improve students’ language skills, such as listening, speaking, reading and writing. Furthermore, a study that was conducted by Hirschel, (2012:101) reveals how glossary entries created by the students themselves enabled them to think deeply. Also, Suppasetseree and Dennis (2010:42) uncovered how the glossary tool improved students’ vocabulary. All these benefits of an LMS explain why it was worth investigating the use of Moodle in ELTL at the institution under study.

Jose (2015:26) also points out that Moodle prepares students for the 21st century job market where they are expected to use technology, and it enables students to use real-life situations. These benefits are basically related to the standard features available on the LMSs, although not all the LMSs operate the same. Chigona and Dagada (2011:94) add another bonus point, the fact that the LMS template contains various built-in features that instructors can use, thus there is no need for advanced technical skills to develop the system. Nevertheless, irrespective of the features that are readily available, Beckford and Mugisa (2014:157) are of the opinion that although LMSs provide opportunities to improve teaching and learning, these opportunities are not being employed effectively.

Besides the benefits of LMSs, there are some disadvantages that the literature in the field points out. Beckford and Mugisa (2014:157) stress the limited potential of LMS assessment tasks to prepare students for life learning as the emphasis is on multiple-choice tests. Another argument in this line arises from Jose's (2015:27) work, where the researcher indicates how one of the disadvantages of Moodle is the insufficient electronic feedback that the system provides, especially when students are habituated to face-to-face feedback. However, this could be a shortcoming resulting from the incompetence of the users of the system as the LMS facilitates opportunities for electronic feedback. The study that was conducted by Simon (2019:90-91) identified Moodle to be one of the tools that are commonly used to provide electronic feedback.

Another argument that bears credit is the inability of an LMS to manage the behaviour and learning styles of the students in comparison to Massive Open Online Courses (MOOC) platforms where learning is tracked and enhanced (Beckford & Mugisa 2014:157). In a similar vein, Beckford and Mugisa (2014:159) suggest a move towards MOOC learning platforms that have not yet been widely adopted in African educational institutions.

There are a number of LMSs available for teaching and learning, such as Blackboard, Chisimba, TelEduc, Sakai, WebCT and ToolBook. Moodle is also one of the numerous LMSs available at educational institutions to enhance the curricula. Beckford and Mugisa's (2014:158) study on the current picture of LMSs points out how the ranking of the use of LMSs that was done by the Times Higher Education World University

Rankings for 2013 to 2014 identified Moodle to be the LMS that was widely used by the top ten universities globally, followed by Blackboard, Bespoke and Sakai respectively.

Moodle is explained as a learning space where students can interact, share, create and be given feedback over the course of study (Albee et al 2012:7). Moodle is an open source LMS that was originally developed by Martin Dougiamas, an Australian educator and computer scientist (Moodle 2015). His intention was to assist instructors to create courses that could be delivered in a non-traditional classroom setting, which is online, with a collaborative learning element (Moodle 2015). As explained here, Moodle was not originally developed for ESL teaching and learning, or for any other subject area. However, it has a variety of tools that can be effectively employed for ESL teaching and learning in an online learning environment to enhance L2 skills, such as reading comprehension, writing, speaking, listening, and vocabulary.

Moodle remains one of the most popular LMSs due to the fact that it is an open source that is freely available for educational uses; it has a friendly user-interface and instructors are able to manage the platform depending on their needs (Albee et al 2012:7; Brandl 2005:16; Costa et al 2012:336; Liu 2013:1). Again, the findings of Liu's (2013) study regarding factors that impact ESL students' interaction with Moodle show how expectancy to perform well in English was one of the driving forces behind the adoption of Moodle, thus making it an LMS of choice. It is on this basis that Liu (2013:13) advocates the use of Moodle tools by ESL instructors, for instance to engage students in online quizzes and other activities so that they enhance their competences and motivation.

The interaction, sharing and creation of content as well as feedback activities facilitated by Moodle mirror the types of learning interactions required in a constructivist paradigm, for example student-teacher, student-student, and student-content, as pointed out by researchers in the field of ICTs (Anderson 2011:58; Brandl 2005:20). Likewise, Jose (2015:26) found Moodle to be interactive, as well as being a learner-friendly way of learning that promotes independent learning as the students work at their own pace. These types of interactions are of importance as they illustrate

crucial methods of knowledge construction in the era of technology, where ICT tools facilitate these interactions.

ICT literature harmonises the notion that the development of communicative skills in language learning requires social interaction between the teacher and students, and also among students themselves (Brandl 2005:20). Likewise, Moodle provides features that can be effectively exploited for collaborative learning, to construct knowledge or online content as well as for assessment and feedback. In fact, Moodle emphasises collaboration and interaction as it can be used as a platform for chat and discussions with students and among students. Suppasetsee and Dennis (2010:37) give an example of a study in which the lecturers found the forums to be some of the favourite tools. Furthermore, Jose (2015:27) explains how Moodle facilitates different learning styles, thus enabling the shy students to participate actively in chats, discussion forums and blogs, consequently improving their communication and writing skills by interacting with extrovert students. Sharing the same sentiment is Hirschel (2012:101).

Moodle and its sub-tools or applications have much to offer for ESL teaching and learning. When investigating the impact of Moodle as an e-learning tool in an English language institute, Alhothli (2015:60) observed the improved performance of students in communicating with each other while using Moodle, although they struggled to use the tool due to language barriers. Consequently, Alhothli concluded that when used effectively, Moodle tools might benefit students in their learning process, and “Moodle as an online learning management system can be a promisingly effective e-learning tool to use for English language learners (students)” (2015:60), a sentiment also shared by Suppasetsee and Dennis (2010:37). Thus, 21st century educators need to identify and highlight best emerging educational practices that can serve as models for effective integration of technology into ELTL. This line of thought concurs well with Laakkonen and Taalas’s (2015:228) opinion that “in higher education language learning, and in language learning in general, promoting 21st century skills requires a conscious expansion of language teaching practices”.

According to Brandl (2005:18), Moodle provides tools that can be exploited for ELTL. Şahin-Kizil (2014:177) substantiates this view by emphasising how “through its

template-based, user friendly nature, multimedia support, student progress tracking and feedback options, Moodle offers a lot to facilitate language instruction through blended designs”. Şahin-Kizil (2014:177) cultivates this notion further by tabularising the potential uses of Moodle for ESL teaching and learning, as summarised in Table 3.1 below, augmented with input from other researchers in the field. It is also worth noting that the table below does not reflect comprehensive uses of Moodle as there are other potential generic uses that are not displayed in the table, such as its ability to be used as a repository for course materials (Suppasetsee & Dennis 2010:42).

Table 3.1 Potential uses of Moodle tools in ESL teaching and learning: Adaptation of Şahin-Kizil (2014:178)

Moodle tools/features	Potential Uses in Language Learning
Lesson	Instructor delivers various language activities to check comprehension of various skills, such as through multiple choice, choosing and short answer questions (Jose 2015:24).
Blog	Students write asynchronously, instructor and other students provide feedback on the blog (Jose 2015:23).
Quiz	<p>Creating different types of quizzes (e.g. multiple choice, true/false, matching, cloze tests) to practise language skills, vocabulary and grammar structures (Jose 2015:24).</p> <p>Developing language skills through quizzes (Suppasetsee & Dennis 2010:38).</p>
Chat	Students engage in text-based synchronous learning discussions on different topics with friends and other students (Jose 2015:23).
Glossary	Creating and maintaining a dictionary specific to the target course, by which the list of words can be shared with other participants, thus enhancing vocabulary acquisition (Hirschel 2012:101; Jose 2015:23; Suppasetsee & Dennis 2010:37).
Wiki	Encourages collaboration as students add and edit web pages in groups, thus encouraging them to read each other's work (Jose 2015:24).
Forum	<p>Synchronous or asynchronous discussion in the target language that enables peer review and correction (Jose 2015:23).</p> <p>Any kind of writing activities, and increases interaction between the instructor and the students (Motteram & Sharma 2009).</p>

Assignment	Students upload any kind of assignment requiring submitting a file; instructor grades the assignments and provides feedback online (Jose 2015:26; Wright & Wright 2011).
URL	Enables instructors to provide a web link as a resource, e.g. ESL documents, images and web-pages (Jose 2015:26).
Gradebook	Presenting the results of students' activities in detail. Helping students to monitor their own progress (Lin 2011; Wright & Wright 2011).

However, as pointed out earlier, irrespective of the abundant tools that Moodle affords for creative and supportive ways of language teaching and development, how these tools are used by the lecturers at classroom level remains a concern (Costa et al 2012:341; Jose 2015:28; Ramanair 2014:1; Şahin-Kizil 2014:176), thus the need for research to establish what really happens with respect to the use of Moodle for ELTL. Additionally, it is deemed important to note that irrespective of the number of technologies or tools available for teaching and learning, it is not the use of technology per se that benefits the students, but rather how the technology is used, the content and the instructional strategy (Ally 2011:15; Fillion, Limayem, Laferrière & Mantha 2010:86). In other words, what matters is not only the technology in use, but also how the technology is used. As an example, Dogoriti et al (2014:257) report how, irrespective of adequate infrastructure, only two percent of the students who participated in their study reported to have used the chat forum, while none of them used the news forum to supplement ELTL during the study period.

One means of using technology to enhance language teaching and learning is using the blended learning approach, and among other LMSs, Moodle also facilitates a blended learning approach as discussed in the following subsection.

3.3.1 Using Moodle in a blended learning approach

As a trend in many educational institutions, Moodle is used to supplement face-to-face teaching of ESL service courses at the institution under study. A mixture of delivery techniques in the hybrid approach is normally face-to-face teaching combined with

online learning. The face-to-face element of the blended learning approach points to the significance of the human touch in the learning process. Likewise, a more appropriate definition that reflects how blended learning should be applied in the English language service courses under study is “face-to-face teaching and learning supplemented by an online CALL component delivered through a learning management system” (Grgurović 2011:100). The focus of the present study was to find out and reveal what transpires at classroom level at the institution under study when face-to-face teaching is supplemented with online learning.

Tselios, Daskalakis and Papadopoulou (2011:225) are of the opinion that there is little research that has been conducted in ESL blended learning. It is on this basis that Tselios et al (2011:225) highlight “the need to conduct studies in various countries to investigate possible cultural and individual differences as well as different educational approaches and goals”. Furthermore, Tselios et al (2011:232) call for the need to examine students’ views on blended learning approaches. Nevertheless, it is worth noting that Tselios et al’s (2011) study was quantitative. A qualitative study might yield different results regarding the matter under investigation, and perhaps open doors for further studies. Worth noting, and simultaneously an issue of concern, is Şahin-Kizil’s (2014:176) observation that blended learning has been adequately researched in other domains of learning, but there is relatively limited research on blended learning in ELT. In the same vein, very few studies, if any, have been conducted on the use of the augmented learning approach in ELTL in the Namibian higher education sector.

Although Penãfiel et al’s (2016:102) study confirmed underutilisation of the Moodle platform at the polytechnic where their study was conducted, they found the blended learning approach to be the best option and, in the final analysis, they recommended training of teachers to be able to use the blended learning approach effectively. On the other hand, this scenario makes evident the fact that the problem of the unpopular or undesirable use of Moodle or LMSs in general could be widespread, thus the need to conduct more research in different educational settings.

Consequently, the three subsequent sections present a broader overview of the use of the LMS as an ICT tool in three developed and developing countries respectively, to illustrate good practises and be aware of the challenges experienced in different

countries regarding the use of LMSs. No specific formula was used to select the countries studied, other than the review of literature on the use of LMSs in developed and developing countries. Nevertheless, what emerged from the review of the selected literature does not necessarily present a complete picture of the state of affairs regarding the use of ICTs or LMSs in that country as a whole as only a few cases were analysed as examples. Finally, the synopsis of the use of LMSs in these two developmental contexts is tabularised in Table 3.2 to illustrate the benefits of using LMSs as ICT tools, as well as the challenges that have been experienced in both developed and developing countries.

3.4 THE USE OF LEARNING MANAGEMENT SYSTEMS IN DEVELOPED COUNTRIES

Although it is widely acknowledged that the use of ICTs has potential benefits for education (Laakkonen & Taalas 2015:224; Livingstone 2012:9; Mikre 2011:1; Mtebe et al 2011:289), the process of embedding ICTs in education to enhance teaching and learning poses both opportunities and challenges. One feasible way of embedding ICTs in education, especially when applying a blended learning approach, is by using an LMS. Dube and Scott (2016:175) enlighten how an LMS has become the most popular teaching and learning platform in higher education institutions globally. Below is a discussion on what transpired when an LMS was used as an ICT or e-learning tool in higher education ELTL in three developed countries: Portugal, Japan and Sweden. These are the countries where cases regarding the use of LMSs were easily available.

3.4.1 Learning Management Systems usage in Portugal

Carvalho, Areal and Silva (2011) investigated the perceptions of students on two LMSs, Blackboard and Moodle, at a Portuguese university. In Portugal LMSs are used at all levels of the education system, especially Moodle (Carvalho et al 2011:824). A large number of secondary and primary school teachers and learners have laptops. Nevertheless, Carvalho et al (2011:825) expressed concern that irrespective of wide accessibility of laptops in the educational institutions; little is known regarding how LMSs are used in practice, meaning at classroom level. It was on this basis that they

conducted a study to investigate and establish the usage of the LMSs at the Portuguese university.

Blackboard was the institutional LMS at the university where the study took place, but a number of faculty members had taken an initiative to use Moodle as well, because many students had already used Moodle by the time they came to the university. The study entailed the comparison of Moodle and Blackboard, focusing on the level of experience of the users, features used and satisfaction with Moodle and Blackboard, but biographical details were also considered as the study was quantitative (Carvalho et al 2011:827). The LMS features were investigated to establish the level of engagement, while the LMS platform, organisation of course materials, navigation and communication tools were investigated in light of satisfaction.

The results of the study revealed how nearly all the participants, namely 98%, had good technological skills, and some of the students had already used Moodle in secondary schools. The results showed how there were basically the same uses for both Blackboard and Moodle, but Moodle users submitted more assignments and took more quizzes compared to Blackboard users. Also, more Moodle users used communication and collaboration tools compared to Blackboard (Carvalho et al 2011:830). The participants also acknowledged the positive impact of the LMS on their learning as they felt that it helped with group work and it improved communication with faculty.

It is interesting to note how Moodle was used to a larger extent in comparison with Blackboard, the LMS all faculty members were expected to use at institutional level. Another interesting finding is that students who were less competent in technology use were less likely to use Moodle compared to Blackboard, and the researchers attributed this scenario to the role previous experience plays in using an LMS. The key lesson to learn from this study is the finding that “the more students used one of the LMSs, the more they tend to prefer it” (Carvalho et al 2011:836). This finding points to the need to upload many courses or many activities on the LMSs so that students are keen to use the system.

Carvalho et al (2011:836) identified a number of challenges LMS users encountered. Blackboard users experienced problems such as the inability to find the course materials, logging on to the system, and inability to open the files or to submit the assignments, while Moodle users found it challenging to log on to the system, to find the course materials and to register on the system. Nonetheless, it was indicated that complexity to log on to Moodle was not challenging to students who used the LMS habitually (Carvalho et al 2011:837). Students who experienced some difficulties approached fellow students and faculty for assistance.

The conclusion that was reached in this study was that the LMS was found beneficial as it complemented students' learning activities.

3.4.2 Learning Management Systems usage in Japan

Toland et al (2014:221) carried out a qualitative study regarding the usage and perceptions of the LMS called Manaba at a private Japanese university using the Technology Acceptance Model (TAM). Manaba is a Japanese word that means a learning environment, and the researchers indicated that it is an LMS that is used in 190 institutions of higher learning worldwide (Toland et al 2014:222). The old LMS that was previously in use at the university, Campus Web, was replaced by the new one, Manaba. The usage of the new system was different, therefore the researchers wanted to find out its ease of use, perceived usefulness and the training support that was available to use the new LMS. The study involved instructors for English as a Foreign Language (EFL) in the economics and business departments.

Toland et al's (2014:228) findings show how the Manaba LMS was found useful as it enabled instructors to collect and preview students' written work that could also be easily checked for plagiarism. The LMS also assisted with organisation of the course as instructors did not have to carry a heavy load of students' written work and could work anywhere. Also, student absentees were directed to the LMS where lesson notes were posted after the class. Toland et al (2014:229) furthermore indicate how the LMS enhanced learning, for instance when students commented on things and when they interacted with each other online, thus creating knowledge. This state of affairs refers back to the importance of interactions in the co-creation of knowledge in constructivist thinking. Another key finding was how the participants found the English course on the

LMS relevant to real life whereby students as future employees would be expected to use digital media instead of paperwork (Toland et al 2014:229). This, again, emphasises the importance of authentic learning that is essential in constructivist thinking.

There were also negative aspects of the experience (Toland et al 2014:229). Some staff members did not welcome the new LMS, Manaba, as they were already used to Campus Web. They felt that the new LMS was increasing their workload. Functionality of the new LMS was another challenge as some of the participants found it problematic to use the new system, and accessibility was limited to individual instructors and their students, making it impossible for staff to share files. Also, the participants expressed frustration with the training mechanisms that were in place to use the system, which they felt were inadequate, and there was no encouragement or incentives from the institution for staff to use the new LMS. Nonetheless, many of the participants found the LMS easier to use than Campus Web.

Overall, the researchers concluded that although the participants generally had positive perceptions of the experience, the integration of technology is a complex process, especially when there is lack of support from the institution.

3.4.3 Learning Management System usage in Sweden

LMS usage was investigated in yet another developed country, Sweden, to get a broader picture of the usage of LMSs in developed countries.

Ekman, Lundin and Svensson (2015:900) conducted a quantitative study at a large Swedish university to investigate how the attitudes of the staff affect the usage of an institutional LMS that was not specified. The participants were educators at the university, engaged in a teacher education programme. A survey was e-mailed to the participants' e-mail addresses.

The results of the study revealed wide use of ICTs and LMS tools, with some participants using all of the LMS tools. The key functions involved uploading the course content, such as lecture slides and links, posting course information, and for students to submit their assignments. Another positive finding that was reported was improved

interaction and communication with students, which the instructors felt enhanced their teaching methods (Ekman et al 2015:904).

Nonetheless, it was concluded that the instructors were positive towards the use of ICTs to improve interaction with the students, although actual usage of the LMS did not correlate with their positive attitude (Ekman et al 2015:904).

The next section deals with the use of LMSs in developing countries, in order to find out what transpires when ICTs are implemented in developing countries where the infrastructure could be less developed.

3.5 THE USE OF LEARNING MANAGEMENT SYSTEMS IN DEVELOPING COUNTRIES

Mässing (2017:41) highlights the importance of exploring the use of ICTs in developing countries as it enables researchers to identify success factors and the specific challenges faced in the process of implementing ICTs. The analysis of the use of LMSs in the three developing countries below, Zimbabwe, South Africa (SA) and Namibia, explains how implementation of LMSs poses both opportunities and challenges. The three aforementioned countries were selected due to availability of cases regarding the use of LMSs compared to other developing countries, especially in African institutions of higher learning.

3.5.1 Learning Management System usage in Zimbabwe

Dube and Scott (2016:174) conducted a study in Zimbabwe regarding students' perspectives on LMS tools in pedagogical achievements, using the Sakai LMS. A survey, focus group discussion and analysis of student logs to the LMS were used as data collection instruments. Gidden's Structuration Theory, whereby the analysis goes beyond the micro level of society to the macro level, was used to analyse the data. Dube and Scott (2016:178) explain how the analysis involved the elements of signification that deal with meanings attributed to the LMS tools and features, domination which involves mobilising students to adhere to authorities in order to use the LMS, and legitimation that makes students abide by the institutional rules and regulations when using the LMS tools for learning and study purposes.

The results of the study indicate how students found the use of the LMS tools valuable for teaching and learning (Dube & Scott 2016:179). Additionally, students identified features and tools that enhanced their learning to be “test and quizzes, chat, grading tool, announcements and the resource feature” (Dube & Scott 2016:180). However, it was also reported that the students’ ability to use the LMS features and tools was limited, and students faced challenges such as “availability of the Sakai system, accessibility, usability, integration, user support, functionality (and) standardisation” (Dube & Scott 2016:180). Availability in this study context refers to the time students could use the LMS without interruption. This was a matter of concern as the system was reported to be down regularly. Other concerns that emerged from the findings of the study were inadequate training to use the LMS (Dube & Scott 2016:180), and lack of policies to encourage the use of the LMS in all faculties (Dube & Scott 2016:181). These findings corroborate Mtebe’ (2015:53) argument that installation of LMSs at institutions of higher learning does not guarantee their effective usage, based on the increase in the adoption of LMSs in the sub-Saharan region of Africa, but actual usage of the systems remained low.

To conclude, the key limiting factors to the use of the LMSs in this study were found to be institutional and technological factors that were beyond the control of the students and staff using the systems. This is an indication that even when there is goodwill for students and staff to use the LMS, effective utilisation of the system can be hindered by other external factors.

3.5.2 Learning Management Systems usage in South Africa

Tshabalala, Ndeya-Ndereya and Van der Merwe’s (2014:103) case study on the use of an LMS at a university in a rural area in South Africa (SA) was specifically conducted to identify the challenges academic staff faced in the process of adopting a blended learning approach using Moodle, but there are also good lessons to be learnt.

On a positive note, Tshabalala et al (2014:105) report how 14 of the 16 academic staff members who participated in the study had sufficient knowledge and skills to use computers, but only four of the participants had used Moodle in a period of five years. One would assume that lack of computer skills was not an impediment to successful

use of the LMS at this university, but then 12 of the 16 participants had no experience of using an LMS. This situation illustrates how having adequate computer usage skills is not equated with the ability to use an LMS effectively. Also, Tshabalala et al (2014:107) reported how technophobia, the fear of technology, was another reason behind the poor usage of the LMS. The researchers of this study also disclosed how some of the participants lacked understanding of the concept of blended learning (Tshabalala et al 2014:107).

Only two of the sixteen lecturers that participated in the study were using the LMS at that university by the time the study was conducted (Tshabalala et al 2014:105). These lecturers used the LMS, Moodle, to post learning and assessment materials, as well as to contribute to the discussion forum, although the LMS had been operational for five years by the time the study was conducted.

The challenges of lack of a policy that encourages blended learning, lack of training opportunities for staff to use the LMS, inadequate computer facilities for students and large classes also featured in the findings of the study (Tshabalala et al 2014:107). Once again, similar to Dube and Scott's (2016) study in Zimbabwe, these challenges are examples of how implementation of ICTs is sometimes hindered by external factors that are beyond the control of the end users of the LMSs. Overall, this study found the usage of Moodle at that university to be poor or undesirable (Tshabalala et al 2014:108).

Nonetheless, it is worth noting that poor usage of the LMS at this university in a rural area does not accurately portray the picture of the use of ICTs in SA as a country. For example, in a study on emerging technologies that was conducted by Ng'ambi (2013:657), LMSs emerged to be on top of the list of technologies that were used innovatively among educators in the South African higher education context. This points to the fact that there are some institutions in SA where LMSs are being used effectively.

The challenges discussed above in the two developing countries are examples of a variety of barriers and obstacles experienced at the grass root level of societies where the end users are in the process of implementing ICTs. As a developing country,

Namibia, where the current study was conducted, is not immune to these challenges. In fact, Namibia - that is a relatively small country in terms of the population - has a lot to learn from other countries, both developing and developed. An in-depth discussion of how LMSs are used in Namibian institutions of higher learning is presented below.

3.5.3 Learning Management Systems usage in Namibian higher education

In Namibia, higher education is basically provided by the country's two public universities: the University of Namibia (UNAM) and the Namibia University of Science and Technology (NUST), formerly known as the Polytechnic of Namibia (PoN), and one private university, the International University of Management (IUM). There are also relatively few private colleges that offer certificates, diplomas and short courses, such as the International Training College Lingua, but their student intake is relatively small compared to UNAM, NUST and IUM. There is also another private university that is in its infancy stage, Welwitchia University that has just started with the training of health professionals even though it has started to expand its training programmes to other disciplines. Due to a limited number of institutions of higher learning in Namibia, the research base is limited, and finding a good case study that illustrates a clear picture of LMS usage in the country was a challenge. Consequently, the Namibian case study presented below, (Simon 2019), is not without shortcomings as it also involved two participants from a university in Finland.

Simon (2019) conducted a study that investigated lecturers' best practices when implementing online formative assessments in higher education. Although one of the universities involved in the study was not a Namibian institution, both institutions used Moodle to develop activities and assess students online.

The study revealed various tools that the lecturers used to design and develop online formative assessments, of which Moodle was one of the tools that were commonly used to provide electronic feedback (Simon 2019:90). Turnitin, which at times is embedded in Moodle, emerged to be a common tool that was used to provide feedback (Simon 108).

Also, the study revealed some good practices. The lecturers were motivated to participate in online formative assessments (Simon 2019:111) and were also proud to be engaged with other members of the community within the institutions (Simon 2019: 112). The lecturers were also of the opinion that the electronic feedback saved the institutions time and money, students could spend less time on the online assessment activities, they could do the assessment activities anytime, anywhere, and they could get instant feedback (Simon 2019:112).

Furthermore, the study brought to light the challenges that impede effective implementation of online formative assessments, ranging from access to infrastructure to human use and adoption of technology. The key challenges were identified to be poor connectivity, dishonesty among students, lack of motivation for students to get actively engaged in online assessments, as well as lack of time to provide electronic feedback to the students (Simon 2019:123-126).

Although this case study was not for English lessons per se, it enlightens on the role LMSs and Moodle specifically play in provision of electronic feedback, irrespective of the subject matter.

3.6 SUMMARISED VIEW OF THE USE OF LEARNING MANAGEMENT SYSTEMS IN SELECTED DEVELOPED AND DEVELOPING COUNTRIES

The summarised view of the use of LMSs in both developed and developing countries as discussed in the two preceding sections is tabularised below in Table 3.2. Due to discrepancies in the usage of the LMSs in the developing countries, the researcher has specified only some countries where the situation under study was experienced.

Table 3.2 Tabularised synopsis of the use of LMSs in selected developed and developing countries

	SELECTED DEVELOPED COUNTRIES: Portugal, Japan and Sweden	SELECTED DEVELOPING COUNTRIES: Zimbabwe, South Africa and Namibia
EXAMPLES OF GOOD PRACTICES		
ICT policies	<ul style="list-style-type: none"> Sometimes staff take own initiatives to use extra LMSs (Portugal) 	<ul style="list-style-type: none"> Governments emphasise usage of computer-based materials to support teaching, but policies are not comprehensive, need revision Institutional ICT policies make use of technology a high priority
Learning materials	<ul style="list-style-type: none"> Moodle users take more quizzes More use of communication and collaboration tools Positive impact on learning acknowledged (Japan, Portugal & Sweden) Enhanced teaching methods Enhanced group work/collaborative construction of knowledge LMSs found beneficial to organise course materials Preparation of students for real-life work/authentic learning 	<ul style="list-style-type: none"> Tests, quizzes, chat and resources features were found to enhance learning LMSs used to post learning materials LMSs used for discussion forum
Usage of LMSs	<ul style="list-style-type: none"> Wide use of LMS tools (Sweden & Portugal) Good technological knowledge to use the LMS (Portugal: 98%) Online submission of assignments makes it easy to check plagiarism 	<ul style="list-style-type: none"> Moodle used successfully to deliver e-learning/distance courses Large and sophisticated use of LMSs at some institutions (SA) Sufficient computer usage skills, but not equated to LMS usage skills
Infrastructure	<ul style="list-style-type: none"> Laptops easily accessible 	<ul style="list-style-type: none"> Access to ICTs still a challenge
Support services	<ul style="list-style-type: none"> Many students already competent to use Moodle before they come to university 	<ul style="list-style-type: none"> Moodle only accessible at higher institutions of learning
Socio-cultural issues	<ul style="list-style-type: none"> More uses of the LMS make students keen to use the LMS 	<ul style="list-style-type: none"> Use of LMS tools found valuable for teaching and learning

EXAMPLES OF CHALLENGES EXPERIENCED		
ICT policies	<ul style="list-style-type: none"> No encouragement or incentives to use the LMS 	<ul style="list-style-type: none"> Lack of ICT policies to encourage usage of the LMSs, especially in higher education Lack of motivation to use ICTs
Learning materials	<ul style="list-style-type: none"> Inability to find course materials Inability to open files Inability to submit assignments 	<ul style="list-style-type: none"> Use of LMSs non-existent in some faculties LMSs used only to upload notes
Usage of LMSs	<ul style="list-style-type: none"> Problems logging on to the system Students poor in technology less likely to use a new LMS (Portugal) 	<ul style="list-style-type: none"> Low usage of the LMSs Limited ability to use LMSs Lack of computer skills Shortage of skilled staff/poor ICT literacy Complete absence of technology use in teaching in some institutions
Infrastructures	<ul style="list-style-type: none"> Well-developed infrastructure Easy access to computer facilities 	<ul style="list-style-type: none"> Lack of / limited access due to poor infrastructure Unstable/unreliable/ineffective infrastructure Inadequate computer facilities Disparities in rural and urban settings in terms of using ICTs
Support services	<ul style="list-style-type: none"> Problems using the new LMS (Japan) 	<ul style="list-style-type: none"> Lack of adequate technical support Inadequate training to use LMSs Poor understanding of blended learning approach
Socio-cultural issues	<ul style="list-style-type: none"> New LMS not welcomed - staff feel it increases workload (Japan) Mismatch between positive attitude of staff on the use of LMSs and actual usage 	<ul style="list-style-type: none"> Fear of technology Low levels of education

The synopsis of the use of LMSs as blended learning tools in both developed and developing contexts, above, serves as evidence to the fact that the challenges of integrating ICTs in education are not confined to developing countries. Nonetheless, developing countries have much to learn from developed countries. A lengthy list of challenges experienced regarding the use of LMSs in teaching and learning in both developed and developing countries is an indication that a lot still needs to be accomplished to make the use of LMSs and ICTs in general effective and efficient, especially in the developing countries.

As students are the core stakeholders in the usage of the LMSs, it is imperative that their views are taken into consideration when designing strategies to overcome these challenges. The next section presents the perceptions and experiences of students on the use of Moodle as an LMS for ELTL in different educational settings. These experiences depict the successes, challenges and barriers experienced in the process of adopting and implementing ICTs in various educational settings in higher education.

3.7 PERCEPTIONS OF STUDENTS ON THE USE OF MOODLE IN ENGLISH LANGUAGE TEACHING AND LEARNING

Research on perceptions of students on the use of ICTs in general is abundant, but there is inadequate research on the perceptions of students on the use of Moodle in ESL explicitly (Carvalho et al 2011:825). Sharing the same view is Muñoz-Repiso and Tejedor (2012:903) who argue that:

It is (therefore) necessary to know the opinions that teachers and students alike have about these innovative technological processes that are starting to be implemented in institutions of higher education, to determine their willingness or ability to execute these changes and the obstacles that can stand in their way.

Suppasetserree and Dennis (2010:44) also acknowledge the importance of exploring views regarding the use of Moodle for ELT from both students' and lecturers' perspectives. This resulted from a shortcoming in their study that did not take into account the views of the lecturers. The current study fills in this gap by exploring both lecturers' and students' viewpoints.

Among studies involving the viewpoints of the students, Liu (2013) interviewed ESL students who were doing grammar and reading courses and had experience of using the LMS, to find out their experiences of using it. The students revealed how they found using the LMSs for learning excellent (Liu 2013:73). They found Moodle to be an indispensable tool that enabled them to develop English grammar and reading skills, as well as to acquire knowledge of other aspects of the English language (Liu 2013:54).

In a similar vein, when Alhothli (2015:60) conducted a study on the impact of using Moodle as an e-learning tool for students in an English language institute, the findings of the study revealed how the majority of the students liked the overall experience of using Moodle for their English language course. However, there was a limitation in the sense that Moodle was found to be an unconventional way of learning as students had been accustomed to what they perceived to be a more convenient way of learning in a face-to-face learning environment. The student participants in Alhothli's (2015:60) study suggested improvements they wanted to be made to their Moodle platform, as explained in detail in the following subsection. The necessity for improvements indicates indirectly how there was some degree of dissatisfaction regarding the use of Moodle, a situation that prompts further analysis of VLEs. Similarly, although the student participants in the study of Suppasetserree and Dennis (2010:41-43) indicated how they found Moodle interesting to use, they revealed how they preferred face-to-face interaction over Moodle. These findings point to the key role human touch plays in a face-to-face learning environment that students find to be a conventional way of learning as opposed to an online learning environment.

In the same vein, Al Zumor, Al Refaai, Eddin and Al-Rahman's (2013:102) study on students' perceptions of blended learning in a language course addressed the impact of blended learning on the development of a variety of English language skills. Although students acknowledged that blended learning was beneficial compared to the face-to-face instruction, it is worrisome to note that students found the LMS only beneficial in the development of reading and vocabulary, among a total of eight language skills that were investigated, others being writing, listening, speaking, spelling, grammar and pronunciation (Al Zumor et al 2013:102-103). There was inconsistency regarding these other language skills as students were uncertain of the development of these skills, a situation that points to the need for more research. Al Zumor et al (2013:105) further reported how some students went to the extent of suggesting the eradication of the LMS as, in their opinions, it was useless; however it should be noted that the LMS that was used in this study was Blackboard, not Moodle. Yet, this scenario serves as evidence that not all is positive with blended learning, thus calling for more investigation into the matter.

Nevertheless, Al Zumor et al (2013:105) mentioned that the students had misconceptions of what reading was as they were not referring to reading skills such as scanning or skimming, but rather to reading a variety of texts on the LMS, including instructions for assignment tasks. Also, the researchers attributed this ambiguity of the development of other language skills to English language instructors' inadequacy of skills to integrate technology. It is thus worth noting how the challenge of inadequate knowledge and skills to use the LMSs spills over to the undesirable performance of students. Also, the researchers found that the results were contradicting what other studies in the field have already established, that LMSs have the potential to improve some English language skills, such as listening and speaking (Liu 2013:73; Shahrokni & Talaeizadeh 2013:22). Irrespective of these explanations, this scenario points to the need for more research in order to arrive at a more convincing notion.

On a more positive note, students who participated in Zyad's (2016:318) study indicated how they found Moodle collaborative writing activities useful, and their participation in the forums had a positive impact on their learning. Multi-media files that had been uploaded onto the Moodle platform were also found beneficial, for example videos, book chapters and PowerPoint presentations (Zyad 2016:321). However, it is worth noting that not all the participants considered Moodle beneficial to improve their writing skills. In a similar vein, the discussion and chat forums emerged as the favourite tools that students used in Suppasetsee and Dennis's (2010:37) study, in which discussions were linked to previous lessons. Likewise, Hirschel's (2012:101) study mentions how the discussion forum emerged as the favourite among other Moodle tools.

Overall, the research findings in this section regarding students' perceptions of blended learning and the use of Moodle for ELTL reveal how the use of LMSs has some benefits, but that it is a fluid situation that needs to be investigated further. The student participants in numerous studies have not only shared their experiences; they have also imparted recommendations for successful L2 blended learning that are presented in the next section.

3.7.1 Students' recommendations for successful blended learning in English as a Second Language

The recommendations given by students who have had first-hand experience of the challenges encountered in the process of using an LMS in this section could serve as a foundation for a favourable environment for Moodle or blended learning at large. Although some of the studies that have been conducted are qualitative and not thus generalisable by nature, there are valuable lessons that can be learned, resulting in improved educational practices in numerous educational settings.

Among the suggestions given by student participants in Alhothli's (2015:51) study are changes such as a variety of exercises and activities to be added to Moodle; more video exercises, especially on listening; improvement of the Moodle interface; and adding more to the course content. However, in Suppasetserree and Dennis's (2010:38-39) study it was the lecturer participants who expressed discontent with the Moodle interface. Moreover, Dias and Diniz (2014:307) investigated how Moodle could be improved in higher education from students' perspectives by requesting participants in the study to provide suggestions on how to enhance the LMS. The student participants suggested training of faculty to enable them to use a variety of Moodle tools, to make the overall use of Moodle mandatory, as well as to make discussion forums compulsory in order to enhance the use of the LMS (Dias & Diniz 2014:313). These findings imply the need for instructors to examine Moodle platforms in their own educational contexts to determine if these challenges serve as drawbacks to effective integration of technology in their own contexts and to find amicable solutions.

Furthermore, Al Zumor et al's (2013) study resulted in a number of recommendations from students' perspectives pertaining to how an LMS could be improved. The student participants proposed three key recommendations: finding a solution to technical difficulties they had been experiencing, proper training of students to be able to use the LMS, and increasing the number of computer laboratories (Al Zumor et al 2013:102). In addition, the students suggested awarding of distinguished performance in using the LMS to motivate the use of technology for ELT, providing students with personal computers, as well as encouraging instructors to use technology for ELTL (Al

Zumor et al 2013:102). However, no specific suggestions or guidelines were given on how instructors could be encouraged.

More challenges and barriers that staff and students experience in the process of implementing ICTs or using LMSs are presented in the following section.

3.8 CHALLENGES AND BARRIERS ARISING FROM THE USE OF ICTS AND LEARNING MANAGEMENT SYSTEMS IN ENGLISH LANGUAGE TEACHING AND LEARNING

At the onset, understanding of challenges and barriers in the context of this study is imperative as these obstacles can be turned into opportunities for educational transformation. An analysis of studies that have been conducted on challenges and barriers to ICT integration is proof that some scholars use the two terms interchangeably. For instance, some scholars view lack of equipment as a challenge (Nenge et al 2012:119), while others categorise it as a barrier (Khan et al 2012:67). It is not debatable that some challenges can also be barriers to effective implementation of ICTs. Hence, in this study challenges and barriers should be understood as a merged entity of drawbacks, obstacles, limitations and constraints that prevent effective implementation of ICTs in education.

An observation has been made by a number of scholars in the field that although ICTs have the potential to enhance the teaching and learning processes, this goal has not yet been fully achieved in the developing world due to certain challenges and barriers that are experienced (Khan et al 2012:62; Mtebe et al 2011:292; Nenge et al 2012:119). For instance, Tshabalala et al's (2014:103) study identified a number of constraints on the ability of university language instructors at a university in a rural area to use technology in the classroom, as well as the fact that these instructors had limited knowledge and skills to use technology.

Viatonu and Kayode (2012:3) argue how there is still lack of interest among both the students and teachers to integrate ICTs in language education. These are informative observations, but as researchers in the field, we need to dig deeper to identify the root causes of this lack of interest or undesirable usage of ICT tools in language teaching and other domains of learning. Nenge et al's (2012:119) study on the use of ICTs by

academic staff in higher education also identified lack of training and technical expertise in ICT to be key challenges, amongst others. This observation hints at the fact that without proper training, academics might not be in a position to make effective use of educational technologies.

Regarding poor service delivery in terms of ICT integration at Zimbabwe Open University, challenges such as lack of appropriate hardware and software, poor Internet connectivity and lack of equipment were experienced (Nenge et al 2012:119). These challenges are indicative of the fact that effective implementation of ICTs does not only lie in the hands of instructors and students; it involves many other stakeholders in the education system. Challenges such as poor Internet connectivity and lack of equipment are obstacles that are beyond instructors' and students' control. Sharing the same sentiments are Salehi and Salehi (2012:218) who found insufficient technical support at schools and little access to Internet and ICT to be some of the barriers to effective implementation of ICT in the English language classroom. All these challenges illustrate how effective integration of ICTs in education does not only lie in the hands of the instructors and students but also other stakeholders in the education or even economic sector, to ensure proper infrastructure.

Another factor that plays a role in the integration of technology into teaching and learning is pedagogical beliefs. Karabulut's (2013:168) study on factors that impede the use and integration of technology in language teaching established pedagogical beliefs to be an inhibiting factor. These types of barriers influence the educators' decisions on whether to use ICTs or not, resulting in limited use or even non-implementation of ICTs in teaching and learning.

To conclude, although informative, many of the studies illustrated above are qualitative and cannot thus be generalised due to the nature of qualitative studies. According to Penãfiel et al (2016), there are numerous challenges that need to be attended to for ICT to have a greater impact on teaching and learning. Accordingly, it was imperative that a study be conducted to establish what is happening in the Namibian higher education context where the research base is still at infancy stage.

3.9 CHAPTER SUMMARY

This chapter presented debates surrounding the use of ICTs in ELT in light of previous research findings. Debates surrounding the use of Moodle as an ICT tool for ELT were imparted in this chapter. The chapter started with a discussion on how ICTs, specifically LMSs, are used for teaching and learning in both developed and developing contexts.

The chapter also presented the perceptions of students on the use of Moodle as an LMS for ELT, emanating from student experiences. In addition, the recommendations students have offered for the enhancement of the Moodle platform and its usage were presented. Finally, the challenges and constraints to effective use of ICT tools in ELTL were addressed, including that of Moodle in order to provide insights into how these obstacles could be turned into opportunities. These insights would serve as complementary guidelines or strategies for effective use of Moodle in ESL instruction.

The research design and methods of this study are presented in the following chapter.

CHAPTER FOUR: RESEARCH DESIGN AND METHODS

4.1 INTRODUCTION

In this chapter the researcher presents the rationale for the empirical research and then discusses the philosophical assumptions that informed the research design and methods of this study. The research design is presented, and there is a lengthy discussion on the research methods where the research site, sampling methods and data collection and analysis procedures are explained.

The reasons behind the selection of the design and methods are also provided, as well as the shortcomings of the selected design and methods. Furthermore, the trustworthiness of the research is discussed by presenting measures that had been put in place to ensure the credibility of the study. Finally, the chapter sheds light on ethical considerations, ranging from ethical clearance from the institutions involved in the study to adherence to ethics pertaining to the use of human subjects.

4.2 RATIONALE FOR EMPIRICAL RESEARCH

Before embarking on the reasons behind conducting an empirical study, an understanding of what empirical research entails is essential. Yin (2015:335) describes empirical research as “studies based on the collection and presentation of original evidence or data in support of a study’s claims”. Both quantitative and qualitative studies can be carried out empirically, for instance based on observations and experiments in a quantitative study or based on participants’ experiences in a qualitative study. Creswell (2013:48) identifies various reasons for conducting an empirical qualitative study, such as to explore a complex problem in order to get better understanding, to empower individuals to express their views, and to develop theories when the existing ones do not fit the problem under study. Likewise, there were diverse reasons for conducting an empirical study of this nature, as discussed below.

Global trends have made it imperative to use ICT in various aspects of life, including teaching and learning. Like other countries worldwide, Namibia, as a country, does not want to lag behind in making use of opportunities afforded by new technologies. Likewise, the institution under study acknowledges the need and importance of incorporating ICTs in education, but how ICTs are being integrated remained a matter that needed investigation. Nonetheless, poor usage of ICTs has been found to be a

constraint to effective teaching and learning in other educational contexts, especially in developing countries (Khan et al 2012:73; Mtebe et al 2011:292; Nenge et al 2012:118). Namibia being a small developing country, its educational research base is marginal, and little is known about the integration of technology in the Namibian higher education system, including the problem under study.

When Albee et al (2012:41) conducted a study at the institution under study in an effort to overcome the constant change of LMSs at the institution, they recommended further studies to explore and establish how Moodle features or applications were being used by lecturers and students in specific departments. This necessitates an empirical study of this nature, aimed at investigating and establishing how lecturers and students in the DoEL use Moodle in order to enhance ESL pedagogy. This is an example of how this study, among others, fills the gap in literature in the field. In the same vein, Grgurović (2011:113) investigated blended learning in an ESL classroom and concluded that a “descriptive case study research can yield valuable evidence in the investigation of blended learning”.

Also, the context in which the study was conducted is another reason behind the adoption of an empirical research. There are relatively few institutions of higher learning in Namibia. Selection of the institutions where the study could be carried out was challenging as there were basically only three universities in the country, and only two of them had fully functioning LMSs. The problem was further aggravated by the fact that the faculty at one of these two public universities did not use the LMS for English language courses by the time the study was conducted, although it was available at the institution. The third university, a private institution, was slightly new and was still in the process of designing their LMS. This left the researcher with only one public university in the country that made use of the LMS in ELTL. Thus, a case study focusing on a single social phenomenon (Babbie 2013:338) in which detailed information is collected from a small number of people (Creswell 2013:48; Harding 2013:8) was a realistic choice.

The research design that was deemed fit for the empirical study discussed above is presented in the subsequent section.

4.3 RESEARCH DESIGN

To start with, this subsection explains the philosophical position of the researcher that formed the basis for the selection of the suitable research approach that the study adopted. Additionally, the relevant research strategy, emanating from that research approach, is presented.

4.3.1 Research paradigm

Research involves three key elements: the philosophical assumptions or paradigms of the researcher, the research design, and the research methods (Creswell 2014b: 5). Denzin and Lincoln (2013:11) define paradigms as “belief systems that attach the user to a particular worldview”. Cooper and White (2012:15) understand a paradigm to be “a set of logically related assumptions, concepts, or principles that tend to guide our thinking and the important assumptions that we have about how the world functions”. According to Holliday (2016:16), research is informed by philosophical paradigms or worldviews, as it is our philosophical position that informs the way we conduct research. In accordance with these interpretations, the researcher of this study understands a paradigm to be an angle of viewing the world from the perspective of the researcher, and then the researcher operates within this angle.

As per Morgan (2014:1), the researcher of this study adopted a pragmatism philosophical position of viewing the world, a paradigm that can be used in social research regardless of the research being quantitative, qualitative or mixed methods. Drawing on Morgan (2014:2), a pragmatism approach was suitable due to its emphasis on human experience that is made up of human beliefs and actions. Based on the assumption that there are multiple realities or interpretations of a situation, and knowledge is constructed socially, (Merriam and Tisdell 2016:9) interaction with the participants in this study facilitated social construction of multiple realities pertaining to the use of Moodle as an LMS for ELTL. The goal was to understand the lives and experiences of the people who participated in the study, and the meanings they attached to the problem under study.

Epistemologically, the researcher of this study is of the assumption that the nature of knowledge is better understood through the researcher’s interaction with the participants (Creswell 2014b:185). Thus, the researcher adopted a subjective

philosophical position in which the nature of reality is regarded to be subjective, making it open to different interpretations (Denzin & Lincoln 2013:26). Denzin and Lincoln (2013:27) explain further how there could be “multiple constructed realities”, which are different ways to interpret a phenomenon in order to understand how people construct their understanding of the world, based on their experiences. This assumption contradicts the objective nature of quantitative research in which a single data collection method can be employed.

In terms of axiology, which is the ethical position or assumptions of the researcher (Lincoln & Guba 1985:38), the researcher supports the assumption that values are components of the participants’ social life. Thus, in agreement with Creswell (2013:2), there are no values for a particular group of society that are wrong or unacceptable. Hence, different interpretations and experiences of the members of a group to be studied contribute equally to an understanding of the problem. The research approach that was adopted and is discussed below is based on these philosophical assumptions.

4.3.2 Research approach

The nature of the problem to be studied defines the relevant research approach. In this study the researcher aimed to investigate the use of Moodle and its features or sub-tools in teaching and learning the English language. This means the study was of an exploratory nature, and Creswell (2013:47-48) explains how qualitative research is suitable when a problem needs exploration, especially when the problem is not measurable. It is thus the qualitative research approach that was found ideal due to its attribute of social construction of reality and focusing on the process rather than on the product like in quantitative research (Cooper & White 2012:15).

Also, Creswell (2014b:4) defines qualitative research as “an approach for exploring and understanding the meanings individuals or groups ascribe to a social or human problem”. What is missing in this specific definition, although mentioned elsewhere else by Creswell (2013:45), is the importance of conducting qualitative research in a natural setting. This is how the concept of “naturalistic inquiry” (Cohen et al 2007:170) emerges in this study, referring to the fact that no intervention or manipulation of the natural environment in which the study took place was essential. Creswell (2014b:8)

explains how constructivist researchers study interactions among the study participants and the context in which the participants live and work in order to understand their worldview, thus referring to the natural setting. Likewise, the study under discussion adopted a naturalistic approach.

Creswell (2012) presents five reasons for conducting a qualitative study: for exploration, for complex problems that cannot be studied quantitatively, for better understanding of the context, to get explanation of complex issues, and to uncover problems that might not be measurable. Likewise, a qualitative research approach was considered fit for the context under study in which the topic to be studied is under-researched, for the researcher to dig deeper to uncover how Moodle was used for ELTL, and to perhaps uncover problems that might need further studies. Yin (2015:9) lists five aspects that make qualitative research unique in comparison with other research approaches:

- Studying the meaning of people's lives in real-world settings;
- Representing the views and perspectives of others;
- Explicitly attending to real-world contextual conditions;
- Contributing insights that may help explain social behaviour and thinking; and
- Acknowledging the potential relevance of multiple sources of evidence.

Qualitative research is not without criticism. Denzin and Lincoln (2013:17) discuss how qualitative inquiry has been criticised for being “unscientific, only exploratory, or subjective”. Nevertheless, even quantitative inquiry has its weaknesses, for instance the inability to dig deeper to get the opinions of the participants in the study as a quantitative researcher cannot study the behaviours of the participants.

The research strategy that was adopted to explore the meanings individuals attribute to the problem under study is described next.

4.3.3 Research strategy

In terms of the type of research strategy that was adopted, the study employed a case study mode of inquiry which, with reference to Babbie (2013:338), examines a case in detail over a certain period of time, and employs multiple sources of data. The data were collected by employing classroom observations, individual semi-structured face-

to-face interviews with the lecturers, focus group interviews with selected students, and document analysis. As explained by Creswell (2013: 97),

a case study research is a qualitative approach in which the investigator explores a real-life contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed in-depth data collection involving multiple sources of information (for example observations, interviews, audio-visual material, documents and reports), and reports a case description and case themes.

Grgurović (2011:102) explains how empirical studies that investigate blended learning involving language teaching and learning adopt a comparison or non-comparison approach. The comparison approach compares blended instruction (face-to-face combined with the online component) and face-to-face instruction, while the non-comparison approach focuses on the design of the course, its implementation, and the attitudes of the lecturers and students towards the blended learning approach in use. This study adopted a non-comparison approach.

Alluding to Babbie (2013:338), a case study can focus on only one entity, or it can focus on more than one entity. Merriam and Tisdell (2016:38) indicate how a case can be “a single person, who is a case example of some phenomenon, a program, a group, an institution, a community, or a specific policy”. The current research adopted a single case study focusing on one entity, the use of Moodle in ELTL at the institution under study, with embedded subunits: the three English language service courses. The unit of analysis is of significance in a study as it is the element that makes a study a case study (Merriam & Tisdell 2016:39).

A descriptive single case study focusing on one entity was found ideal to explore, describe and understand the meanings lecturers and students at the institution under study attribute to the use of Moodle and its features, through individual and group interviews. As each case study needs to be bound in terms of time as well, (Yin 2014:33), the time boundary of this case study was the first and second semesters of 2018, with a semester lasting for about twelve weeks. Data collection commenced in the second half of the first semester, but the analysis of policy documents stretched to the second semester.

4.4 RESEARCH METHODS

This section provides a discussion on the sampling methods that the researcher used to select the setting and the individuals to be studied, as well as the research procedures and methods that were employed to collect and analyse the data.

4.4.1 Sampling method

Drawing on Harding (2013:16-17), sampling can be understood as the selection of the subjects or participants in the research from a larger population to collect the data. The sample of this study in terms of the setting, the study programmes, the participants and the data collection methods were all purposively selected due to their likelihood to provide relevant information pertaining to the research questions. I prefer Yin's (2015:339) explanation of purposive sampling due to its comprehensiveness, which is explained as

the selection of participants or sources of data to be used in a study, based on their anticipated richness and relevance to the study's research questions (including sources whose data are presumed to challenge and not just support a researcher's thinking).

As the problem to be investigated had been identified in the DoEL, the lecturers and students involved in three of the English language service courses in the department were approached to participate in the study, in consultation with the HoD. The three courses were Principles of Language Usage (PLU), English in Practice (EPR) and English for Academic Purposes (EAP). As discussed later in Section 4.4.2, only the mandatory English language courses that are presented here were purposively selected to be investigated as the other two courses that are offered in the department were electives and more specialised in terms of subject content. All the courses that were investigated had four hours of English allocated per week. Each class session lasted for one hour, but one of these four hours was for Moodle, during which students did English language tasks using the LMS.

Harding (2013:17) explains how purposive sampling is a technique in which "the researcher is quite deliberately subjective, choosing those respondents who will best fit the purpose of the research". As the researcher aimed to understand the social world from the perspective of the people who have experienced it, the lecturers and students who had used Moodle in English language teaching and learning at tertiary

level were in a better position to provide the information required. With insight from Creswell (2012:206), these were the people that were more able to provide useful perceptions as they were familiar with the context and the problem that was being investigated. Beukess-Amiss (2011:62) advocates the use of e-learning champions, exemplary lecturers in a higher education setting who have potential to drive and integrate e-learning into teaching and learning effectively, who could be a good sample.

In accordance with the purposeful random sampling strategy, six lecturers were then purposively chosen from nineteen lecturers teaching the English language service courses, based on their experience and likelihood to provide credible information on the use of Moodle in the department (see Table 5.1). Eighteen students were also deliberately selected from the class groups of the lecturers who participated in the study to participate in focus group discussions (see Table 5.2). This sample was selected in line with Harding (2013:16-17) who states that when a larger group is to be studied, the researcher decides which members of the population are to participate and selects them deliberately. The students were selected with the assistance of the class lecturers as they were the ones who were in a better position to identify students who could effectively participate in a discussion to provide insightful answers to the research questions, in accordance with purposive sampling. They had to be students doing one of the three English language courses under study, with the lecturers that participated in the study, and they had to be using Moodle for English language teaching and learning during the period of data collection.

Among various types of purposive sampling techniques that are used in qualitative research, homogeneous sampling was identified to be fitting in the selection of student participants in the focus group discussions. As Creswell (2013:155) explains, homogeneous sampling is useful when the research question is exclusive to a specific subgroup in which the participants have similar characteristics. The groups of participants had to be six to eight students from the classes of the lecturers taking part in the study. An overview of the sample and sampling strategy that were employed is tabularised next in Table 4.1 below.

Table 4.1 Overview of the sample and sampling strategy

Sample	Sampling Strategy	Sampling criteria
Subject courses	Random purposive sampling	<ul style="list-style-type: none"> • One of the first three English language service courses offered in the Department of Education and Languages where English is compulsory. • A course where Moodle is being used for English language teaching and learning during the period of data collection.
Lecturer participants	Random purposive sampling	<ul style="list-style-type: none"> • Lecturers who had been in the department for more than two years. • Lecturers teaching one of the English language service courses being studied on a full-time basis during the period of data collection. • Lecturers using Moodle for English language teaching and learning during the period of data collection.
Student participants	Homogenous purposive sampling	<ul style="list-style-type: none"> • Students attending any of the English language courses of the lecturers participating in the study. • Students using Moodle for English language teaching and learning during the period of data collection. • Students doing one of the three English language service courses being studied during the period of data collection on a full-time mode of study.

As the sample size in qualitative research is usually smaller (Creswell 2014b:189; Harding 2013:8), only a few participants were selected to participate in the study: two

lecturers from each of the three English language service courses to participate in individual interviews, amounting to six lecturers, and six students to participate in the three focus group interviews, amounting to eighteen students. The lecturers and students who participated in this study were selected based on their experience and likelihood to provide valuable information regarding the use of Moodle in the English language service courses at the research site.

The research participants were situated in the research environment, the setting that is discussed in the subsequent subsection.

4.4.2 The research site and context

The study took place in the DoEL in the SHS at a public university in Namibia that was established as a polytechnic institute during the previous twenty years but gained university status in November 2016. Permission to conduct research at the institution (Appendix A) was sought and granted by the SHS Research Ethics Committee through the Dean of the School and the HoD of the Education and Languages Department where the study was conducted. English, which is used as the official language in Namibia, played a critical role in the admission of students to the institution, and English language service courses were compulsory for all the students enrolled at the institution. Nevertheless, as was discussed earlier in Section 1.2, proficiency in the English language remained a serious matter of concern at both institutional and national levels.

There were three mandatory English language service courses, namely PLU, EPR and EAP, unless students were exempted. It was thus these mandatory English language courses that were purposively selected and used to investigate the use of Moodle in the department. The other two courses that were offered in the department, Professional Writing and Professional Communication, were electives and more specialised and were not thus the focus of the study. All the English language service courses were taught on full-time, part-time and distance modes of study. Not all the modes of study could be investigated due to time constraints; thus, only the full-time mode of study was investigated. All three courses that were investigated had four hours allocated to English per week, lasting for one hour per session, whereby one hour was for Moodle in which students attended classes in the laboratories using Moodle.

In order to enhance the use of the LMS in English language teaching and learning, the three courses under study had started with a new curriculum that required students to use electronic study guides with embedded Moodle activities. It was institutional policy that technology be integrated in the teaching and learning of all the courses offered at the institution, and this included the English language service courses. One of the objectives of the institutional e-learning policy is “to ensure that learning and teaching via e-learning will be conducted with all the adequate resources and systems in place so as to not disadvantage anyone in any way compared to other modes of study” (PoN 2010:2). In an effort to make this objective a reality, in addition to classrooms, there were four computer laboratories allocated to the DoEL, but they were shared with staff from other departments.

Moodle was used as the institutional LMS; thus, it was the key platform for e-learning courses at the university. The study made use of the existing institutional LMS, Moodle, which was used by the target groups of participants. A variety of tools that could be used for ELTL were available on the Moodle platform (PoN 2010:3). The researcher aimed to establish how these technologies were being used at classroom and departmental levels.

4.4.3 Data collection procedures

Data were collected through classroom observations, individual semi-structured face-to-face interviews with the lecturers, focus group interviews with selected students from the class groups that were observed, and analysis of documents. This facilitated triangulation of the data. Yin (2015:337) describes triangulation as “the deliberate seeking and collecting (of) different kinds of evidence that nevertheless converge on the same finding”. Denzin and Lincoln (2013:9) define it as “the use of multiple methods in order to get in-depth understanding of the phenomena in question”. The data were collected during the first semester of the academic year that usually lasts for a period of about 22 weeks.

After getting ethical clearance from the institution overseeing the study (APPENDIX E: **ETHICAL CLEARANCE CERTIFICATE**), and the institution where the study was conducted (**APPENDIX B: PERMISSION TO CONDUCT RESEARCH STUDY**), the researcher recruited the participants in the study with the assistance of the head of the DoEL. The researcher distributed the information sheet pertaining to the study to the participants (Appendix C) and explained what the study entailed to secure informed consent to participate in the study. After obtaining consent from the participants (Appendix D) the researcher collected the signed informed consent forms. The researcher also asked to be added to the Moodle platform to be able to access online activities during the laboratory sessions. The multiple methods that were employed to collect the data, namely observation, interviews and document analysis, are discussed below.

4.4.3.1 Observation

To observe classroom practices and the role ICTs plays in ESL teaching and learning, the researcher observed six class groups belonging to the six different lecturers who participated in the study. Among the types of observation that Creswell (2014b:191) recommends (complete participant, participant as observer, non-participant observer as participant, and complete observer), the researcher of the current study adopted a position of a non-participant observer and took notes of the setting, the participants and events while observing. Additionally, when it was deemed essential, the researcher met with the lecturers concerned after observations to clarify matters that were not clear.

The three computer laboratories where observations took place were well-resourced, with 32 computers in Laboratory 1, 36 computers in Laboratory 2, and 28 computers in Laboratory 4. None of the lecturers who were observed made use of Laboratory 3. All the laboratories were equipped with a projector, a smartboard and a printer. Nevertheless, none of the smartboards or printers were used during the observation period. Five of the classrooms that were observed were also equipped with smartboards, but none of the smartboards were used during the period of data collection.

An observation checklist (Appendix F) was used to observe the physical learning environment or context in which learning takes place in both face-to-face and

laboratory lessons. The observation entailed how lecturers and students were using Moodle applications for English language teaching and learning, for example the tools in use, interaction patterns and involvement level of students, ESL teaching methods, and types of activities students engage in, for instance reading, writing, oral and aural activities, as well as vocabulary and grammar activities. The observations were conducted in the second half of the semester, based on the assumption that some students might not be quite familiar with Moodle early in the semester, especially students in the lower modules. Face-to-face lessons were observed three times per week for one hour per session, while all the laboratory lessons that took place once a week for an hour were observed in the computer laboratories. Observations lasted for three weeks per course in which two class groups per course were observed, amounting to a total of 27 observations.

In accordance with Silverman's (2013:245) observation guidelines, the notes taken during observations had to be analysed and then used to narrate a description of the people and events that were observed. The observation notes provided useful insights for the interview questions, especially when the researcher was asking probing questions to dig deeper during the interviews, taking into account the nature of an inductive approach to data analysis.

The researcher anticipated observations to reveal teaching and learning practices pertaining to the use of Moodle in ESL at the institution under study. Silverman (2013:166) provides some hints on what can be observed in qualitative research, such as "physical setting, participants, activities, interactions, conversations, and (your) own behaviours during the observation". Hence, the researcher's focus while observing was the use of Moodle applications for English language teaching and learning, tasks or activities that were being used for English language teaching and learning in order to identify successes and challenges, types of interactions that facilitated English language teaching and learning, and other events that would contribute to an understanding of the state of affairs.

4.4.3.2 Interviews

Interviews also fall into the category of research instruments for qualitative research and were used in the present study. Hence, observation was followed by interviews.

Yin (2014:239) describes individual interviews as “the mode of data collection involving verbal information from a case study participant”. Drawing on Harding (2013:22), interviews are used in qualitative research to enable the researcher to listen and understand the participants’ perceptions of the world and also to understand their experiences by probing questions for points that need clarification, and this is how they were used in the present study. Harding (2013:22) further explains how individual interviews are good instruments for data collection as the researcher is able to spend sufficient time with each participant, asking probing questions for better understanding. It is on these grounds that the researcher of the present study considered individual interviews to be an appropriate data collection method. Interviews were the key data collection method in this study, thus both individual and focus group interviews were employed.

Individual interviews

In order to get lecturers’ views on the integration of Moodle in ESL teaching and learning in this study, individual semi-structured interview questions using open-ended questions were framed in terms of existing perceptions and beliefs of the lecturer participants. These questions were based on an interview schedule for the lecturers, Appendix G. The interview questions were refined during the research process, especially after pilot testing them, to enable better understanding of the use of Moodle for ELTL.

The interviews were conducted with the six lecturers participating in the study in their offices to enable them to share their practices and experiences pertaining to the use of Moodle applications in ESL teaching. The researcher acted as the interviewer, eliciting questions and responses from the participants, in the presence of the non-participant external observer. The lecturer interviews were conducted just after they had finished with the lectures for the semester, while their students were preparing for the examinations. This was a convenient time for the lecturers as they had just finished teaching and had not yet started marking the end of the semester examinations. The individual lecturers’ interviews ranged from 14 to 24.5 minutes per lecturer.

Focus group interviews

In addition to individual interviews, three focus group interviews involving five to six students from each of the class groups that were observed were conducted to get students' perspectives on the use of Moodle for ELTL. The students' focus group interviews were based on the interview schedule for the students, Appendix H. The reason behind using focus group interviews was to get in-depth views from the participants on the problem that was being investigated - how Moodle was being used for ESL teaching and learning. The group interviews were conducted in students' classrooms soon after observation of lessons, and this was a convenient time for students as they had just finished with their classes for the semester and were starting to prepare for the end of the semester examinations.

Babbie (2013:349) describes a focus group as “a group of subjects interviewed together, prompting a discussion”, and consists of five to fifteen people who engage in a moderated discussion in which the researcher acts as a moderator. As a moderator the researcher carefully encourages the participants to express their opinions (Yin 2015:149), and this is why the researcher in the present study also asked probing questions during the interviews for better understanding. The researcher had to be conscious of similar characteristics and experiences of the members of the group, as well as the influence the researcher can have on the participants.

One advantage of focus groups is the tendency for new matters to emerge from the discussions, concerns the researcher would not have thought of (Babbie 2013:349), as it transpired during the interviews. This added some value to the study. Also, Merriam and Tisdell (2016:114) state how data are socially constructed, thus in line with constructivist thinking. Another advantage of the focus group method, as per Yin (2015:151), is that participants are more comfortable expressing their opinions when they are in a group. Yin (2015:151) also mentions that the researcher is able to interview the shy group members individually after the group interview if they happened to be too shy to express their views. Nevertheless, the researcher did not encounter this challenge as the participants were free to express their views. The focus group interviews ranged from 20.5 to 27.5 minutes per group.

Although advantageous on one hand, Harding (2013:23) points out the harsh realities of focus groups. Firstly, it may be difficult for the researcher to control the group, leading to unnecessary discussions. This was not a challenge in the present study as the members were cooperative. Again, Harding (2013:23) points out how the participants in group interviews may not feel comfortable to express their views when topics are sensitive. This stumbling block was not experienced in the present study as the topic under discussion was insensitive.

The interviews were audio recorded and saved in the researcher's laptop before they were transcribed verbatim for analysis. None of the lecturers or students objected to being audio recorded.

4.4.3.3 Document analysis

Documentary information was used by the researcher to corroborate and strengthen evidence from other interviews and observation. Yin (2014:106) advocates documentation in the sense that the documents are stable, thus open to multiple reviews; they are unobtrusive as they were not created based on any specific case study, and they are comprehensive in terms of time frame, the settings and events that can be covered in a document. This facilitated easy access to both electronic and paper-based documents, as well as the Moodle online content of the three courses under study.

Harding (2013:20) describes how the analysis of documents excludes books and journal articles as the focus is on materials such as newspapers, letters, diaries and other public records. In the context of this study, the researcher selected policy documents that were available in the public domain, dealing with the use of ICT or the English language in the Namibian education sector and the country at large. The analysis also entailed the Moodle online content of the three aforementioned English language service courses, PLU, EPR and EAP, to get a better understanding of the teaching and learning experiences of the lecturers and students. Some types of activities that were analysed were for instance the online reading materials, video clips, online quizzes and forums. Online assessment tasks that took place that week were also analysed. The researcher asked for permission to be logged on as a user so that she was able to analyse the online Moodle activities and interactions. A

synopsis of the documents and artefacts that were selected for analysis is presented in Table 4.2 below. .

Table 4.2 Documents and artefacts that were selected for analysis

Section A: Online course documents that were analysed		
Type of document/artefact	Content of the document	Corresponding research question(s)
Principles of Language Usage (PLU) Online Platform, Semester 2 2018)	An online platform that exhibits the teaching and learning experiences of the students doing a basic English language course.	Research sub-questions (b), (c), (d) and (e)
English in Practice (EPR) Online Platform, Semester 2 2018	An online platform that exhibits the teaching and learning experiences of the students doing a mid-level English language course.	Research sub-questions (b), (c), (d) and (e)
English for Academic Purposes (EAP) Online Platform, Semester 2 2018	An online platform that exhibits the teaching and learning experiences of the students doing an upper-level English language course.	Research sub-questions (b), (c), (d) and (e)
Section B: Policy documents that were analysed		
Type of document/artefact	Content of the document	Corresponding research question(s)
Information Communications Technology (ICT) Policy for the Republic of Namibia 2009	A policy document that facilitates the growth of ICT in Namibia as a developing country, in line with global trends.	Research sub-question (a)
Namibian ICT Policy for Education 2005	Trends in ICT curriculum design, development and integration at national level.	Research sub-question (a)
NUST e-Learning Policy 2010	Policies and procedures underpinning the use of ICT in teaching and learning at institutional level.	Research sub-question (a)
The Language Policy for Schools in Namibia (2003)	A national document that ensures mother tongue instruction in the early years of schooling and then transition into English medium in upper primary schooling and beyond, to facilitate proficiency in English as an official language and thus a language for wider communication.	Research sub-question (a)

Namibia's 5 th National Development Plan (NDP5) 2017	National development plans that enable the country to reach its long-term goals and objectives.	Research sub-question (a)
-----------------------------------------------------------------	-------------------------------------------------------------------------------------------------	---------------------------

Document analysis has its critique. Although the analysis of documents has the advantage of saving time as documents are easily accessible, it is a method that has been criticised due to limitation of topics in the documents, as well as the inability of the researcher to ask for clarification when essential in order to get better understanding (Harding 2013:21). The researcher of this study was cautious of these shortcomings while analysing the documents.

The data collection process dictates the analysis of the data that the researcher has collected. Below is a discussion on how the data that were collected were analysed.

4.4.4 Data analysis

Data analysis follows data collection, although in qualitative research data collection can also be done simultaneously with data analysis. In the present study data analysis commenced while data collection was in progress. The researcher did this by initially colour-coding and memoing key issues emerging from interviews that were worth exploring further at a later stage of data analysis. The goal was for the researcher to make sense out of the data. With insight from Roulston (2014:301), generally the analysis of interview data involves three steps: the reduction of data, re-organisation, and representation of data. These were the steps the researcher of this study followed to arrive at the emerging themes that described the process of using Moodle for ELT at the institution under study.

As per Creswell (2013:45), the researcher adopted an inductive approach to data analysis that entailed vigorous analysis of the interview data, working back and forth to identify themes and categories. With insight from Merriam and Tisdell (2016:17), in inductive analysis “the researchers gather data to build concepts, hypotheses, or theories rather than deductively testing hypotheses as in positivist research”. In other words, when data are analysed inductively data collection precedes theory building, unlike in deductive analysis whereby data collection takes place when the researcher has already formed a theory to be tested. Harding (2013:13) further explains how in inductive analysis the researcher does not start with what is already known but rather

with what is unknown, leading to the general truth. Likewise, it was inductive analysis that was employed in the present study to discover the unknown.

Nonetheless, this study did not aim to test any theory; it rather aimed to build theory by providing insights on how Moodle features could be effectively used to support English language teaching and learning. In accordance with Creswell (2012:237) and Creswell (2014a:66), in order to discover what emerges from the interviews and observation data, the data were coded and then thematically analysed to develop patterns and categories. According to Harding (2013:82), codes are “notes made in the margin of interview transcripts and can take a number of forms, such as abbreviations, numbers or words and phrases”. This study made use of words and brief phrases.

Drawing on Thornberg and Charmaz (2014:156), coding entails the researcher reading and analysing the data either by words, by lines, by paragraph or by incident, and the researcher may also combine some of these strategies. In this work the researcher initially colour-coded the data, identifying similar patterns or commonalities. The data were not only coded line by line; they were also coded sentence by sentence as well as by paragraph when it was deemed fitting. Amongst others, in initial coding the researcher’s concentration was on actions, objects, interactions and the process. This is in accordance with Rapley (2014:57) who lists the issues to focus on during coding, namely

- *Actions*, entailing acts, processes, behaviours, intentions and motivations;
- *Interactions*, entailing activities, formats, consequences and outcomes;
- *Identities*, entailing roles, types and categories;
- *Events*, entailing situations, among others;
- *Settings and spaces*, entailing locations, organisations and milieu; and
- *Objects*, entailing devices, artefacts, electronic and paper texts.

As Saldaña (2010:45) explains, first cycle or initial coding paves the way for second cycle coding, also known as focused coding (Thornberg & Charmaz 2014:158), a stage where the researcher selects the most frequently occurring initial codes in order to create broader categories that Harding (2013:83) explains as “broad subject areas under which the data could be grouped”. In this study the list of codes and the

categories were read repeatedly for better coding and categorisation, to adjust the codes and categories. For example, the codes that could not fit in any category or sub-category were discarded. The themes, that Saldaña (2010:13) explains to be the outcomes of coding, categorisation of and reflection on the data, emerged from these broader categories.

Before the data were analysed for coding, the researcher read and re-read the transcribed data to get familiar with the data and to enhance validity, in harmony with Harding (2013:56-57). Further analysis of the data entailed reading and re-reading each of the transcribed data, to generate codes manually. This was done by making comparisons and exploring relationships and also naming and re-naming categories and themes as per Saldaña (2010:13). This was done by initially inserting codes on the outside margins of the transcribed data.

Figure 4.1 below illustrates the steps that the researcher followed in the process of coding both lecturers' and students' interview data.

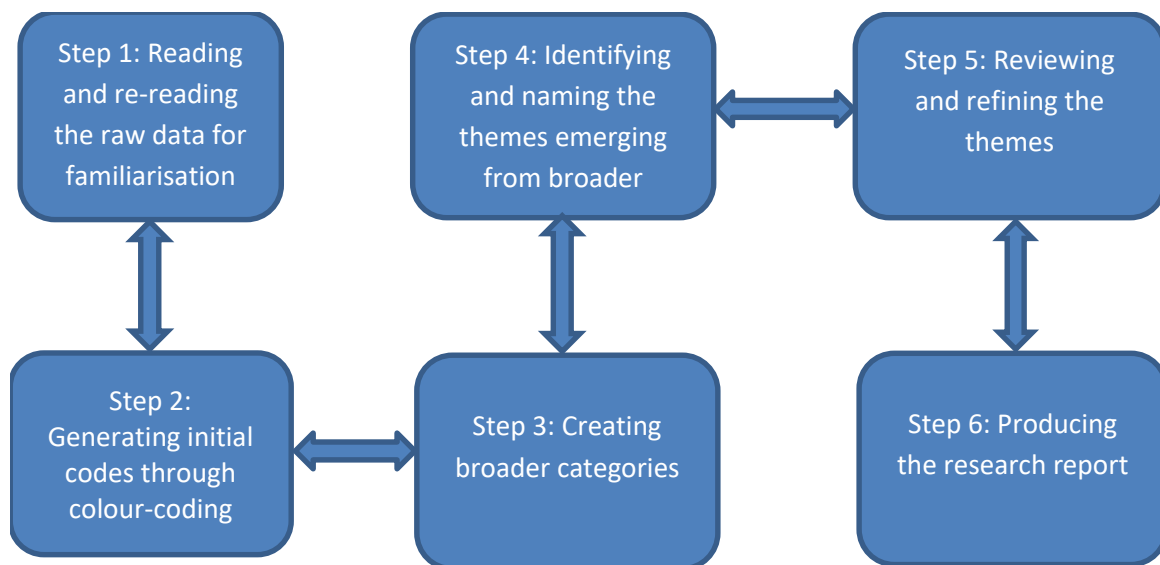


Figure 4.1: Overview of the steps applied in coding the data (Source: Self-developed)

In terms of document analysis, there are three types of data analysis methods that can be employed: content analysis, discourse analysis and critical discourse analysis (Harding 2013:20). In this work it is only content analysis that is explained as it was most fitting. Harding (2013:21) clarifies how content analysis can also be used for the

analysis of documents by counting references to themes or categories. It is content analysis that was used to analyse documents, not quantitatively but by employing the themes that emerged from the analysis of interviews and observations.

In agreement with Merriam and Tisdell (2016:17) and Creswell (2014a:277), the final product of the coding process was a thick and rich description of the problem under study where words and pictures were used to describe the case and the setting. Additionally, the findings were reinforced with quotes and excerpts from participant interviews and documents that were analysed. In short, this analysis enabled the researcher to find out what and how to interpret and communicate the findings to others regarding the use of Moodle as an e-learning tool for English language teaching and learning.

The next section discusses the mechanisms the researcher put in place to ensure that the data collection and analysis methods that were employed were trustworthy.

4.5 TRUSTWORTHINESS OF THE RESEARCH

Design and methodological procedures are some of the strategies to ensure the trustworthiness of the study (Yin 2015:86); this is because there should be congruence between philosophical underpinnings of the study, the design and the methods. The research was conducted in line with these considerations, and several steps were taken to strengthen the trustworthiness of the study. Some of the measures that qualitative researchers employ to strengthen the trustworthiness of the study are for example by proving the credibility of the study, its transferability, dependability and confirmability (Lincoln & Guba 1985:218). These measures of trustworthiness are discussed next.

4.5.1 Credibility

Alluding to Yin (2015:85), in qualitative research credibility refers to the assurance that the data and the findings of the study and its conclusions are a true representation of the phenomenon that was studied. Anney (2014:277) identifies some credibility strategies that qualitative researchers may adopt, such as pilot testing of the research instruments, prolonged field experience, triangulation of the findings of the study and peer debriefing or member checking. These are also the strategies the researcher

employed in this study to enhance credibility of the data and the findings of the study and are explained in more detail below.

4.5.1.1 Pilot testing

One way of strengthening the credibility of the present study was by pilot testing the research instruments. The researcher found it essential to conduct preliminary research prior to the main study, to strengthen its credibility. Holliday (2016:39) explains how pilot testing is a valuable system of testing and ensuring the quality of the final study, for instance by testing the design of the study, data collection instruments, or data analysis procedures. Accordingly, the interview questions were pilot tested with one staff member and three students who participated in a focus group discussion towards the end of the first half of the semester, before the main study had been conducted. The three students were purposively selected from the class group of the lecturer who took part in the individual pilot interview. The students were selected with the assistance of that lecturer as he was in a better position to identify students who could provide the answers required for the research questions.

While pilot testing the instruments, the researcher observed one class that belonged to the lecturer who participated in the pilot interview, and the observation lasted for one week. Three face-to-face lessons were observed, as well as one laboratory lesson. The participants in the pilot testing of the instruments did not participate in the actual study, but they provided constructive feedback, resulting in the amendment of the research instruments before the main study had commenced. Questions 3 and 4 in the students' interview schedule (Appendix H) were combined to avoid replication as the student participants found them to be similar. Some of the lecturers' interview questions were also slightly modified in terms of wording, as well as some of the questions in the observation schedule.

4.5.1.2 Prolonged field experience

Prolonged field experience is another strategy that was used to establish the credibility of this study. Anney (2014:276) explains how prolonged engagement in the fieldwork enables the researcher to get a better understanding of matters that might have an impact on the quality of the data as the researcher develops rapport and trust with the participants. Nonetheless, the researcher took cognisance of the fact that observation

and interviews produce a large amount of data within a short period of time which might become a dilemma for qualitative researchers in respect of data analysis (Harding 2013:22). The observation period was thus closely monitored and was limited to a total of 27 lessons.

4.5.1.3 Triangulation

Triangulation, a technique that facilitates corroboration of a study's findings with evidence from other sources of the data (Yin 2015:340), is another strategy that was employed to strengthen the credibility of the study. It is on this basis that the study made use of observations, individual and group interviews and document analysis, thus triangulating the three data collection methods to confirm the emerging findings of the study. Document analysis was employed to corroborate findings from interviews and observations.

4.5.1.4 Asking probing questions

Asking probing questions to participants during individual and group interviews adds to the credibility of the data and the findings. Yin (2014:141) discusses the importance of being consistent when interviewing different people. This is when probing becomes essential, to ensure consistency in questioning so that the researcher gets a clear picture and deeper understanding of how the participants describe their experiences. Likewise, during the interviews the researcher asked probing questions to dig deeper for better understanding, as illustrated in the sample lecturers' transcribed interviews (Appendix I) and students' transcribed interviews (Appendix J). Care was also taken to avoid leading questions that might have led to undesirable responses.

4.5.1.5 Member checking

Finally, member checking is one of the ways of verifying the credibility of the study. Yin (2015:337) describes member checking as "the procedure whereby a study's findings or draft materials are shared with study participants, (whereby) the 'checking' permits the participants to correct or otherwise improve the accuracy of the study". This enables the participants to check and comment on the accuracy of their responses. This procedure was followed by engaging both lecturer and student participants in the analysis of the transcripts after the data had been transcribed, and it enabled them to check, comment and make amendments to ensure the accuracy of

their responses. Also, excerpts of participants in the interviews were included in the interpretation of the data.

Pertaining to observations, a summary of what transpired in classes during observation was shared with the lecturers concerned to minimise the researcher bias. As the researcher in a qualitative study is usually in charge of data collection and analysis, biases are likely to occur (Merriam & Tisdell 2016:16). Member checking was thus employed to reduce bias in the study.

4.5.2 Transferability

The transferability criterion of trustworthiness is associated with issues of external and internal validity of research. As was mentioned in Section 1.10.2, validity does not play a role in qualitative research. Purposive selection of the participants is one way the transferability of the study can be ensured, and is what was employed in the current study. This is because the people that the researcher deliberately approached are the people who have experienced the situation under study and are thus in a better position to provide the information required. In addition, rich and thick descriptions of the research process, whereby data collection and analysis methods are clearly explained, enable the study to be conducted in similar contexts. Merriam and Tisdell (2016:40) support the notion that a case study with embedded subunits, which is similar to this study, enhances the generalisability of the findings.

4.5.3 Dependability

As a researcher, I took notes of the key events while observing to make the study more dependable. Also, data were read repeatedly during coding to enable better identification of patterns, and I have kept raw data safely on a password protected laptop until the time it will be discarded, after five years. Member checking and peer debriefing are other measures that were employed to ensure dependability. Furthermore, Yin (2014:124) explains how extended observations allow the qualitative researcher to take sufficient field notes in a journal that can be stored as part of the case study database. Keeping raw data of the research documents is another criterion that qualitative researchers can employ to strengthen the dependability of the study, thus I kept transcribed interviews in a password protected laptop, while observation notes would be kept in a locked cabinet in my office for a period of five years for

verification purposes should the need arise. After that, the notes would be shredded or manually destroyed.

Anney (2014:279) advocates peer examination, which is closely linked to peer debriefing, as also one of the criteria for ensuring dependability in qualitative research, whereby the researcher discusses the research process and findings with a skilled qualitative researcher who provides some scholarly guidance to ensure dependability of the study. Likewise, the researcher of this study involved an experienced staff member with a doctorate degree in Education in the discussions of the research process before data collection had commenced. Again, to ensure dependability of the findings, a senior academician with a PhD in Education was approached to check the analysis of the data, as well as to identify shortcomings that needed to be rectified before the study was made public.

4.5.4 Confirmability

A case study research output needs to be confirmable by other people who will read the report. One point worth clarifying among methodological procedures for confirmability is the role the researcher plays in research as an outsider or insider, which is referred to as reflexivity. Heaton (2004, cited in Harding 2013:6) describes reflexivity as “the self-examination of how research findings were produced and, particularly, the role of the researcher(s) in their construction”. The researcher being attached to the institution under study, emanating from the lack of institutions of higher learning in the country (as was mentioned previously), poses some ethical dilemmas in the current study. There is potential for the researcher’s personal experiences and preconceived notions about the problem under study to influence the design and methodological procedures, as well as the findings of the study. Thus the researcher employed some mechanisms that are discussed below to avoid personal biases in the current study. Merriam and Tisdell (2016:16) point out how the qualitative researcher as a key instrument in the process of data collection and analysis can have shortcomings and biases that might affect the study. This is how the concept of confirmability of the findings comes into play.

There was a close relationship between the researcher and the setting as the researcher was employed by the institution under research. To avoid the potential biases, the researcher employed two methods of bracketing that Tufford and Newman

(2010:86) advocate: writing memos (also called memoing) and engaging an outsider in the interviewing process. As Tufford and Newman (2010:81) explain further, bracketing is a method that qualitative researchers employ to mitigate their own preconceptions and to reflect on all the stages of the research process.

The researcher approached an external observer, who was in possession of a PhD in Education and was a staff member at one of the neighbouring universities, to oversee the interviewing process. This person sacrificed her time and attended all the interviews as a non-participant observer. The researcher explained the role of this observer to the participants before the interviews had started, and none of the participants had objections. All the interviews were conducted during the times the external observer was free from her work commitments as she was also giving lectures after hours at her institution. Additionally, the researcher kept a diary and took notes of key events during observations, interviews and while doing document analysis.

Nevertheless, the role of the researcher as an insider does not greatly impact the confirmability of the study. Holliday (2016:16) argues on the matter, expressing how a revolution in paradigms has enabled researchers to be part of the research setting.

Another strategy that was taken to prove the authenticity of the research project was by reinforcing the research report with extracts from the original data to present a fuller sense of the findings. Also, to strengthen confirmability of the study the researcher referred to applicable previous research findings when reporting the findings of the present study. In short, the trustworthiness criteria discussed above is in concurs with Creswell (2013:44) who emphasises how the final product of qualitative researchers should contain “the voices of participants, the reflexivity of the researcher, a complex description and interpretation of the problem, and its contribution to the literature or a call for change”. The researcher of the present study tried to align it to the same criteria in order to maximise its trustworthiness.

The questions of ethics are equally important when one is conducting a qualitative study. The following section presents ethical considerations the researcher of this study had to adhere to in the process of conducting research involving human subjects.

4.6 ETHICAL MEASURES

Research involving the use of human subjects entails issues of human ethics that necessitate the researcher get approval to conduct research. Yin (2015:49) and Babbie (2013:58) provide some hints on what the researcher needs to be aware of when conducting research involving human beings.

Considering that this study involved human instruments, ethical considerations pertaining to the use of human instruments were adhered to, in accordance with the rules and regulations of the academic institutions involved in the study. This is because the researcher needed to ensure the safety and emotional well-being of the participants in the research. Firstly, the researcher sought for, and was granted, ethical clearance from UNISA, the institution overseeing the study (Appendix E), and the research was conducted in accordance with the UNISA policy on research ethics. The researcher also sought for, and was granted, permission to conduct research at the institution under study before data collection had commenced (Appendix A). Permission was specifically requested from the Faculty Research Ethics Committee of the SHS. Consent letters (Appendix C) were given to the lecturers and students participating in individual and focus group interviews to be informed on the observation, their voluntary participation and how they would benefit from the study, the interview process, including permission to be audio recorded, confidentiality involving protection of the privacy of other participants, and their right to withdraw from the study. In return, the participants were required to give the researcher a return slip (Appendix D) in which they gave consent to participate in the study. Also, in accordance with Yin (2014:76), the researcher of this study was honest and ensured a high degree of ethical standards and professionalism during the research process, such as not to falsify information.

The research participants were given a clear purpose of the study and what was expected from them. Pseudonyms were used to guard the confidentiality of the participants. Participation in the study was voluntary, and participants were informed from the beginning about their right to withdraw from the study.

4.7 CHAPTER SUMMARY

In this chapter the researcher made known the philosophical assumptions that inform the research design and methods of this study. The philosophical position of the researcher was disclosed, supported by reasons for adopting the given philosophical assumptions. Based on the philosophical assumptions of the researcher, the research approach that was deemed fit for the study was imparted. Then, there was a lengthy discussion on the research methods, involving the research site, sampling strategy and data collection and analysis procedures. The reasons behind the selection of the design and methods were also provided, including the shortcomings of the selected design and methods.

Then, the trustworthiness of the research was discussed by presenting measures that had been put in place to ensure the trustworthiness of the research. Finally, the chapter shed light on the ethical considerations pertaining to conducting research involving the use of human participants. The following chapter discusses the analysis, interpretation and discussion of the major findings emanating from the data that were collected.

CHAPTER FIVE: ANALYSIS, FINDINGS AND DISCUSSION

5.1 INTRODUCTION

This chapter presents an analytical framework adopted to analyse and interpret the interview data and then provides the findings of the study. The inductive approach to data analysis was adopted to analyse and interpret the interview and observation data, whereby data were broken into manageable pieces during the coding process to facilitate the emergence of categories and themes. The deductive approach to data analysis was also employed to analyse documents' data, using predetermined themes that emerged from the analysis of interviews and observations. Finally, a narrative description of what was found is presented in consideration of the research objectives and questions.

5.2 ANALYTICAL APPROACH TO INTERVIEW DATA

The analytical approach that the researcher adopted was informed by the work of Creswell (2014a:261) who presents six steps involved in the analysis of data.

Step 1: Collection and transcription of the data

The analysis of data commenced with the collection and organisation of interview data that were audio recorded and then transcribed, as well as typing up field notes.

Step 2: Reading the data several times to make sense out of the data

I read each of the transcribed data several times, working back and forth to make sense out of the data, to be able to identify themes and sub-themes that would give insights on how lecturers and students used Moodle for ELTL at the research site. Data were initially colour-coded to identify commonalities.

Step 3: Assigning codes to text segments and labelling them

The most frequently occurring codes were used to create broader categories, whereby codes were inserted on text segments outside the margins of the transcribed data. Data were coded manually, whereby texts were coded sentence by sentence as well as by paragraph as it was deemed fitting.

Step 4: Checking overlapping and repetitive codes

While labelling and assigning text segments with codes, I also checked and sorted out overlapping and repetitive codes. The codes that could not fit in any category or sub-category were discarded.

Step 5: Coding text for the broader themes and sub-themes

I made comparisons of the themes and sub-themes, exploring relationships and also naming and re-naming the categories and themes. The emergent broader themes and sub-themes were coded to be used in the research report, and they were reinforced with direct quotes from the lecturers' and students' interviews.

Step 6: Writing the research report

Finally, the findings from multiple sources of information, that is interviews, observation and document analysis, were consolidated to produce a narrative report that describes the use of Moodle in ELTL at the institution under study, thus interpreting the results.

Before presenting the emergent themes and categories, the profiles of the participants in the study are imparted below.

5.3 PARTICIPANTS IN THE STUDY

In accordance with research ethics, both lecturer and student participants gave informed consent to be interviewed on written forms before the interviews had started. All six lecturers that gave consent to participate in the study took part in face-to-face individual interviews, three females and three males. Their experience of using Moodle for ELT ranged from two to nine years. Although some of them had been teaching at tertiary level for a number of years, they had only started using Moodle for ELT, especially extensively, by the time the study was ongoing. Their profile is presented in Table 5.1 below.

Table 5.1 Profile of lecturer participants in the study

Pseudonym	Course	Gender	Age category	Teaching experience at tertiary level	Experience in using Moodle for ELT
Lecturer 1	EPR	Female	40-45	7 and 1/2 years	2 years
Lecturer 2	EAP	Male	45-50	15 years	3 years
Lecturer 3	PLU	Male	50-55	15 years	9 years
Lecturer 4	EPR	Male	55-60	6 years	6 years
Lecturer 5	EAP	Female	30-35	6 years	2 years
Lecturer 6	PLU	Female	40-45	6 years	6 years

Regarding student participants, a total of 18 students, six students from each of the three courses, had agreed to participate in the study. However, three of them failed to turn up for the focus group interviews. Consequently, 15 students participated in the interviews instead of 18: five PLU students, six for EPR and four for EAP. The participants were seven female and eight male students. It turned out that nearly all the students who participated in the study had experience of using Moodle for one semester, including students from higher English courses (EPR and EAP) whom the researcher anticipated to have had more experience. Only two students had experience of two semesters. The reason was that the majority of the students had been exempted from the fundamental English language course (PLU) and the data were collected during the first semester of the year in which many of the students do their first English language courses. This implies that the majority of the EPR and EAP students just started using the LMS in EPR and EAP respectively as their performance in English was better and they were not thus required to do PLU. This also explains why EPR and EAP participants divulged more information during the interviews compared to students who were doing the fundamental English language course, PLU, and why the researcher had to try hard to elicit more information from the participants.

The profile of the students who participated in the group interviews is presented in Table 5.2 below.

Table 5.2 Profile of student participants in the study

Pseudonym	Course	Gender	Age	Experience with Moodle for ELT
Student A PLU	PLU	Male	23	1 semester – 1 st English course
Student B PLU	PLU	Female	24	1 semester – 1 st English course
Student C PLU	PLU	Male	22	1 semester – 1 st English course
Student D PLU	PLU	Female	21	1 semester – 1 st English course
Student E PLU	PLU	Female	19	1 semester – 1 st English course
Student A EPR	EPR	Male	20	2 semesters – Started with PLU
Student B EPR	EPR	Male	19	1 semester – Was exempted from PLU
Student C EPR	EPR	Female	19	1 semester – Was exempted from PLU
Student D EPR	EPR	Male	29	1 semester – Was exempted from PLU
Student E EPR	EPR	Female	20	1 semester – Was exempted from PLU
Student F EPR	EPR	Female	20	1 semester – Was exempted from PLU & EPR
Student A EAP	EAP	Male	19	1 semester – Was exempted from PLU & EPR
Student B EAP	EAP	Male	23	2 semesters – Started with EPR
Student C EAP	EAP	Male	19	1 semester – Was exempted from PLU & EPR
Student D EAP	EAP	Female	20	1 semester – Was exempted from PLU & EPR

5.4 FINDINGS

The findings of the study that emerged from the analysis of interviews (see Sample Analysis: [Appendix K](#)), observation data and document analysis are presented in this section, starting with findings from the lecturers' interview data.

5.4.1 Emergent themes and sub-themes from the analysis of lecturers' interview data

The analysis of lecturers' interview data resulted in the emergence of the broader themes and sub-themes below that the researcher consequently analysed further to describe the use of Moodle in ELTL at the institution under study. The themes and sub-themes that emerged from the lecturers' interviews are presented in Table 5.3, below. Subsequently, what the researcher learned from the analysis of the interview data presented in Table 5.3 is reported next in detail in a narrative discussion, reinforced with excerpts from the lecturers' interviews.

Table 5.3 Emergent themes and sub-themes from lecturers' interview data

Themes	Sub-themes	Corresponding Research Question
The uses of Moodle for ELTL	<ul style="list-style-type: none"> • Reasons for using Moodle • Role of the lecturers • Augmented learning approach • Tools in use 	How do lecturers and students involved in English language service courses use Moodle features to enhance ESL teaching and learning?
Potential strengths / successes	<ul style="list-style-type: none"> • Staff training • Exemplary teaching and learning 	What successes do the lecturers and students involved in English language service courses experience in the process of applying Moodle to enhance ESL teaching and learning?
Challenges	<ul style="list-style-type: none"> • Attendance of laboratory sessions • Minimal use of Moodle tools • Online assessment tasks • Technical challenges 	What challenges do the lecturers and students involved in English language service courses experience in the process of applying Moodle to enhance ESL teaching and learning?
Suggestions for successful usage of Moodle	<ul style="list-style-type: none"> • Increased laboratory hours • More staff training • Change of beliefs/mind-set • Transforming assessment methods 	What guidelines can be used for the effective use of Moodle to enhance ESL teaching and learning at tertiary level in a developing context?

5.4.1.1 Theme 1: The uses of Moodle for English language teaching and learning

The uses of Moodle for ELTL emerged from the analysis of lecturers' interview data as one of the four main themes, comprising four sub-themes that are:

- Reasons for using Moodle,
- Role of the lecturers as facilitators,

- Augmented learning approach, and
- Tools in use to mediate learning.

Each of these sub-themes is hereby explained, reinforced with extracts from the lecturers' interviews.

Sub-theme 1: Reasons for using Moodle

It emanated from the analysis of lecturers' interview data that initially the LMS was not being used extensively, but there was a positive change due to the initiative that was taken by the new HoD who took over while the study was in progress. This is made evident by the following excerpts from the lecturer participants:

"I think we've got a very able HoD, Head of Department, who has told us to use Moodle much more effectively." (Lecturer 4)

"I think the Moodle platform has been here for a while, but it was just enforced." (Lecturer 5)

This initiative points to the fact that the new HoD by then had noticed that the LMS was not being used effectively at departmental level and thus took an initiative to motivate staff to use the LMS more effectively as evident from the extracts below.

"We come with that mind-set, until somebody really forces us to do it, like the HoD did." (Lecturer 2)

"It's only since the beginning of this year that we have done it more, when we put the entire guide on the Moodle platform... and we incorporated more online activities. Prior to that we had a few activities." (Lecturer 1)

"It has been there, and everybody was not willing to attend, as it's a new thing." (Lecturer 5)

It can be seen from the quotes above that the LMS was not a new initiative at the institution. It had been there for some time, but the key challenge was making effective use of the system. This scenario supports the notion that availability of ICT tools in the classrooms is not equated to their effective usage (Shyamlee 2012:150; Thouésny & Bradley 2011:3) as was pointed out in Section 1.1.

Furthermore, it could be derived from the analysis of the lecturers' interview data that institutional procedures made staff use the LMS as it was an institutional requirement. This is made transparent by the following:

"It was like a requirement that when you come here you have to use Moodle."
(Lecturer 4)

"But it's not like I've decided to use it. No. When I came to xxx (research site), the department was using it." (Lecturer 2)

"All the courses use Moodle. All the courses have a Moodle platform." (Lecturer 6)

To shed more light on this, when asked why they used Moodle for ELT, some of the lecturers indicated that it was not only because it was mandatory for them to use the system. They expressed how they would still use the system out of free will as they liked it, meaning it was not only the institutional procedures that made them use the system, but they had also found it advantageous, as revealed in the following excerpts:

"But if I had a choice of not using it or using it, I think I'll go for using it. You know, education has changed a bit; teaching and learning has changed a bit."
(Lecturer 2)

"It's an easy way of reaching out to a huge number of students, and we also realised that it's a fun way as most young people get to enjoy working on computers." (Lecturer 5)

This shows how the lecturers had also noticed that students find it motivating to use Moodle. This is in congruence with findings from literature in the field that students find it motivating to use Moodle (Alhothli 2015:60; Suppasetserree & Dennis 2010:42).

Another reason for using Moodle for ELTL was the fact that the lecturers were unfamiliar with another system. This emanates from the fact that Moodle was the only LMS in use at the institution under study as revealed in the following excerpts:

"Moodle is what we have, so we use it. I am not familiar with a different LMS."
(Lecturer 1)

"All of us use only one platform; it is not like each lecturer has an individual platform." (Lecturer 6)

Sub-theme 2: Role of the lecturers as facilitators

It emanated from the study that the lecturers played a crucial role in providing guidance to students who needed help in the process of learning via the augmented learning approach. These sentiments were expressed in the following comments by the lecturers.

“You get those students who are challenged technologically ...that you really have to sit and guide them and show them.” (Lecturer 6)

“We still need that human touch where the lecturer has to explain some items.” (Lecturer 3)

All these utterances point to different terminologies entailed in facilitating learning, such as guiding the students, showing the students, explaining some items, and helping the students to develop skills. These utterances make it evident how human touch was essential even in an online learning environment, a point that was also emphasised by Lecturer 3 in the extracts above. Suppasetserree and Dennis (2010:44) also emphasise how human touch is essential in the process of integrating Moodle, and the student participants in their study preferred face-to-face interaction with other students and the instructors as opposed to online interaction.

Sub-theme 3: Augmented learning approach

It can be inferred from the lecturers' interview data that the augmented learning approach was in use but needed to be reinforced in teaching the English language courses under study. The lecturers' interview data revealed how more online content was desired compared to face-to-face teaching, yet the human touch component was found to be essential, as expressed below.

“That’s the ultimate or the principal reason why we go online so that we take away the classroom, the four walls of the classroom.” (Lecturer 2)

“We need to create a balance. Maybe make it more hybrid, more like 50/50 or so. You know, or 60/70.” (Lecturer 6)

“I also think that Moodle has to be hybrid type of... We must not do away with the traditional face-to-face, they must complement each other.” (Lecturer 3)

“Our students who come from high school, especially, prefer to have a teacher in front of them. But I think, we should get to a stage where students don’t really have to come to class to learn English via Moodle.” (Lecturer 2)

The statements above illustrate how the lecturer participants felt that face-to-face and online learning should complement each other, and how the augmented learning approach was already in practice at the research site.

Sub-theme 4: Tools in use to mediate learning

The lecturers divulged how embedded website links and videos were used to supplement face-to-face teaching, to enhance understanding of the subject matter. These tools were used to reinforce understanding, thus supplementing face-to-face teaching. This line of thinking is revealed in the extracts below.

“There are also very good links to the Internet, that they can access or they can go do if they want to have additional information.” (Lecturer 4)

“I use a lot of videos in my teaching and the students like that because they can always go back to the video if they haven’t understood.” (Lecturer 6)

“We have videos that are combined with the unit. So, if they listen to those videos, they are then better informed.” (Lecturer 4)

The use of video lessons to enhance understanding concurs with the work of Motteram (2013:22) who found video and audio clips beneficial to enhance understanding as they develop pronunciation and vocabulary skills.

Again, of significance to this study, as reflected in Lecturer 3’s comments below, is the fact that the LMS had not been previously used to a great extent by a number of lecturers, as was revealed earlier (see Section 5.4.1.1, Sub-theme 1). This transpires from the expression *“At the moment (it) is just a few (tools) that we (have) made use of”, (Lecturer 3).*

The discussion forum has also been tried out, but the lecturers’ interviews revealed how it had not been in use for a long period of time, and also how the lecturers felt that they needed more training to be able to use it effectively.

“We have just started using the discussion forum, and we started this semester.” (Lecturer 2)

“We have the discussion forum, but the main one that I mainly use is the e-learning platform.” (Lecturer 5)

“I need a bit more training in some areas like the blogs and the discussion forums maybe.” (Lecturer 1)

Also, the statement “*we started this semester*” is proof that many of the staff had only started to use some of the tools then due to the initiative of the new HoD who reinforced the use of the system in the department.

The minimal use of the forums in the present study contradicts findings from other studies (Hirschel 2012:101; Suppasetserree and Dennis 2010:37, Ziad 2016:321) whereby the forums, chat and discussion, have emerged as some of most favourite tools.

5.4.1.2 Theme 2: Potential strengths and successes

Irrespective of the fact that the interview data revealed how Moodle was still a challenge at the research site, a milestone has been reached as there were a few potential successes emerging from the lecturers’ interview data, pertaining to staff training and exemplary teaching practice that had been demonstrated by the lecturers. These potential successes are narrated next.

Sub-theme 1: Staff training opportunities

The lecturers’ interview data publicised the fact that there were opportunities for staff training to enable the lecturers to be in a better position to use the system effectively. The lecturers applauded the training opportunities provided at both institutional and departmental levels as illustrated in the comments below.

“I attended two training sessions right at the beginning when I joined the institution.” (Lecturer 3)

“We did have a [training] course right at the beginning when I started at the institution, and then we had a follow-up course.” (Lecturer 1)

This finding contradicts the findings of some other studies where staff have signaled discontent with training opportunities at their institutions, having experienced lack of support from the institutions (Dube & Scott 2016:180; Toland et al 2014:229).

Nevertheless, irrespective of the efforts made at institutional and departmental levels to train the staff members to use Moodle, the interview data revealed how the training that had been provided was inadequate as the lecturers were pleading for more training opportunities to be able to use the system effectively, as illustrated below:

*“More training and training. So that at least we have all the necessary skills.”
(Lecturer 5)*

“I need a bit more training in some areas like the blogs and the discussion forums maybe.” (Lecturer 1)

It is a common trend for the instructors to appeal for training opportunities so that they become competent users of technology at classroom level (Al Zumor et al 2013:102; Suppasetserree & Dennis 2010:43).

Sub-theme 2: Exemplary teaching and learning practice

Although it transpired from the lecturers’ and students’ interview data that the use of Moodle at the research site was still a challenge, the lecturers’ interview data revealed how there were a few useful lessons to be learnt. Students creating and presenting their own blogs was one of such exemplary activities. It was also an example of a good hybrid activity in that students had an opportunity to present the blogs they created in a face-to-face classroom setting. The excerpt by Lecturer 1, below, is in support of the blogs the students created.

“Once we asked them to develop their own blogs, and I think that was really successful. And they had to make three entries. And then they presented their blogs in class., and they were also supposed to comment on another person’s blog.” (Lecturer 1)

Another teaching and learning activity, as authenticated below, featured only in the advanced English course, EAP, the online discussion that was a trial but worked out well as it made it possible for students to generate ideas on how to solve a real-life problem. The discussion forum was used as a pre-assessment task to generate ideas on how to solve the problem of the high rate of car accidents on the B1 road that runs

across the city, before embarking on the main assessment activity, thus preparing the students well for the assessment task.

“In addition, we have a discussion forum... and have a chat on the introduction to the topic of discussion; what are your views on report writing,... after that we have a pre-assessment [task].” (Lecturer 5)

“Maybe discussion forums.... we just tried them out this time, ...we uploaded a typical scenario, the prevalence of accident rates on a B1 road ...some very good ideas came out of that.” (Lecturer 2)

Another model was the grammar online test that the PLU lecturer participants found advantageous as it afforded an opportunity for the lecturers to cover a lot of content within a short period of time, and it was marked instantly, a scenario that might not be doable in a traditional English language classroom. The extracts below reveal more on this test.

“Like a summative test which came at the end. And it was an outstanding experience, because it was truly summative. We managed to cover all the sections of our grammar syllabus in one test.” (Lecturer 3)

“This semester we had a grammar test, as part of the assessment that we put on Moodle for them to do. It makes our work also much easier.” (Lecturer 6)

The fact that Moodle is advantageous as it saves time and enables lecturers to provide instant feedback to students is supported by Simon (2019:112). Gass et al (2013:359) further explain how feedback has potential to enhance both comprehensible input and output skills as per SLA theory.

5.4.1.3 Theme 3: Challenges inhibiting the use of Moodle or technology for English Language Teaching and Learning

More challenges than successes emerged from the lecturers' interview data. The emergent challenges were laboratory Moodle sessions, minimal use of embedded Moodle tools, online assessment tasks and technical challenges. These challenges are explained below as sub-themes.

Sub-theme 1: Laboratory Moodle sessions

Three key points were raised regarding attendance of the laboratory sessions: poor attendance by the students, insufficient laboratory hours, and inadequate computer

facilities. The lecturers were of the opinion that poor attendance of the laboratory sessions interfered with their teaching. This emanates from the fact that many students did not consider the e-learning aspect of the course important. They were only motivated to do well when a task counted for marks, as evidenced below, pointing to the need for intrinsic motivation.

“The problem is that students do not take e-learning serious. They only want to do things for marks.” (Lecturer 5)

“But many students actually do not turn up for these lessons.” (Lecturer 1)

“It is still fresh on my mind when a student never attended a lab class.” (Lecturer 3)

It also transpired from the lecturers’ interview data that the time spent in the laboratories was insufficient, making teaching and learning less progressive. This assumption is borne out in the extracts from the lecturers’ interview data below.

“They become reliant only on the lab sessions that you maybe offer once a week, and sometimes that’s not sufficient.” (Lecturer 6)

“It is always this time thing, like one out of four, it’s not just enough time.” (Lecturer 1)

The lecturers’ interview data also revealed how inadequate computer facilities interfered with their teaching, as it can be seen in the excerpts below.

“There aren’t enough computers on campus for them to access. Sometimes the computer labs where they can go are fully booked.” (Lecturer 6)

“If we can have enough computers to accommodate every student in class, as sometimes they have to share computers, which is not good.” (Lecturer 1)

The challenge of inadequate computer facilities has been observed in other educational settings, especially in developing countries (Al Zumor et al 2013:102; Tshabalala 2014:107), yet it remains a challenge.

Sub-theme 2: Minimal use of embedded Moodle tools

The lecturers’ interview data brought to light the ineffective use of a variety of embedded Moodle tools by the staff, especially the discussion forum. There was minimal and unfavourable use of the discussion forum, emanating from the fact that

the staff members were not confident to use it due to poor knowledge and skills. The excerpts by the lecturer participants below say it all.

“We have just started using the discussion forum, and we started this semester, we haven’t really done much, it was kind of trying it out.” (Lecturer 3)

“I don’t have deep knowledge; I need a bit more training in some areas like the blogs and the discussion forums.” (Lecturer 1)

“I think we can do a lot with Moodle. We’ve just barely begun to explore the nitty gritty of using Moodle. There are so many things that we’re not using right now.” (Lecturer 4)

The concern regarding poor usage of certain Moodle tools also surfaced in the students’ interview data as illustrated in the views expressed below.

“Some of these tools are not really that active; if they were more active, they’ll improve many people’s skills, especially the forums, blogs and chats.” (Student D EPR)

The work of Tshabalala et al (2014:103) presents limited knowledge and skills to use technology as a constraint to effective use of technology among university language instructors and students.

Another crucial point that can be deduced from the excerpts by the lecturers above is that many of the staff members only started using Moodle intensely by the time the study was ongoing. For example, Lecturer 2 reported that, “We started this semester”. This finding concurs with Albee et al’s (2012:19) argument in Section 1.3 that the use of the LMS for ESL teaching and learning was minimal at the research site, hence the need to investigate and find out how the system was being used in different departments.

Sub-theme 3: Online assessment tasks

Another challenge that emanated from the lecturers’ interview data was the inability of staff to create relevant online assessment tasks. The lecturers involved in EAP where emphasis was more on writing found it challenging to create online writing tasks that test the abilities of students in terms of grammar and mechanical errors. On the contrary, the lecturers involved in PLU that covers grammar to a large extent found it

a struggle to assess writing skills effectively due to the objective nature of Moodle exercises and tests. They felt that this type of assessment limits the creativity of students in terms of expressing their thoughts.

“I see some kind of limitation, especially for the language teacher, because then, we are tempted always to set multiple choice, True or False questions, but how do you set a question on paragraph writing for example?” (Lecturer 3)

“When it comes to writing, we have to look at the sentence construction, the spelling; now, this gives you difficulties in assessing that.” (Lecturer 5)

“If again we set an essay and then say: “Choose ABC, or something like that, students are not bringing out their own creativity.” (Lecturer 3)

On the contrary, drawing on Dube and Scott (2016:176) and Simon (2019:90-91), it is reported that Moodle can be used effectively to design and implement a variety of assessment activities.

Sub-theme 4: Technical challenges

The lecturers' interview data revealed how technical problems were sometimes a constraint to the effective use of the system. The use of the system was sometimes negatively affected by constant changes to the LMS that sometimes also interfered with the interface, as pronounced in the excerpts by the lecturers, below. Also, Internet problems and malfunctioning computers were reported to be challenges.

“These constant changes are a bit of a hindrance.” (Lecturer 6)

“We do not have much difficulty, except when we've got Internet interruptions, when some of our lab computers are not working.” (Lecturer 3)

“Sometimes it's system problems, like the activity bounces out, or the marks are not recorded. So, it's basically technical problems I suppose.” (Lecturer 1)

“I think we need to look into the interface of Moodle. It is not very friendly, because even when you just open into Moodle, what you see is not very appealing.” (Lecturer 6)

Technical challenges are a common complaint in diverse contexts where integration of technology in education has been practiced (Al Zumor et al 2013:102; Nenge et al 2012:119), yet it is a matter that should not be overlooked due to its negative impact on the effective use of technology at classroom level.

5.4.1.4 Theme 4: Suggestions for successful usage of Moodle

At the end of the interview session the lecturer participants were asked if they had suggestions on how Moodle could best be used to improve ELTL in the department, based on their experiences of using the system. Four sub-themes emerged regarding suggestions for successful usage of the Moodle platform for ELTL. These sub-themes are:

- Increased laboratory hours;
- More staff training opportunities;
- Change of beliefs/mind-set; and
- Transformation of assessment methods.

Each of these sub-themes is described below.

Sub-theme 1: Increased laboratory hours

The matter of insufficient laboratory hours surfaced in the lecturers' interview data. Consequently, the lecturer participants recommended that the laboratory hours be increased for both the lecturers and students to be able to accomplish a lot, as expressed in the following comments by Lecturers 1 and 2:

“If you could actually have the time to spend in the lab, I think it can definitely enhance the learning experience, and also the teaching.” (Lecturer 1)

“That’s the ultimate or the principal reason why we go online so that we take away the classroom, the four walls of the classroom. To me if we can reach that stage, then that will be the best way to use Moodle.” (Lecturer 2)

Lecturer 2 eventually suggested getting rid of face-to-face English language classes and going completely online. *“Or even to do away completely with face-to-face classes”*, said Lecturer 2. Nevertheless, other lecturer participants would object to this statement, for example Lecturer 3 in Section 5.4.1.1, Sub-theme 2, who felt strongly that human touch was essential in the students' learning experience. This notion is supported by other researchers in the field (Alhothli 2015:60; Suppasetserree & Dennis 2010:41; Zhou & Brown 2015:30).

Sub-theme 2: More staff training opportunities

The lecturers expressed the need for more training on how to use different Moodle tools, especially the blogs and discussion and chat forums. In support of the

deliberations expressed here is Lecturer 4, below, who acknowledged the need for improved use of the system.

*“More training and training, so that at least we have all the necessary skills.”
(Lecturer 5)*

*“I need a bit more training in some areas like the blog and the discussion forum.”
(Lecturer 1)*

“I think we’re doing a lot as well, but there is still much that can be done to improve our teaching with Moodle.” (Lecturer 4)

Sub-theme 3: Change of existing beliefs

As it can be inferred from the lecturers’ interview data that the institution had mechanisms in place to provide training opportunities to the staff members (see Section 5.4.1.2, Sub-theme 1), one of the stumbling blocks to the effective use of the LMS could be the existing beliefs of the individual lecturers. This assumption emanates from the comments that were imparted by some of the lecturer participants who recommended change of the lecturers’ beliefs for staff training to have an impact. These sentiments are expressed in the lecturers’ quotes below.

“Sometimes it is the mind-set that needs to be shifted. We come with that mindset; we can go to trainings, but we might not actually do it.” (Lecturer 2)

“You feel like it’s going to take our...a lot of time and take us away from our workload, not knowing that it was going to be very useful.” (Lecturer 5)

It is a common trend for new innovations to be rejected due to the fear of the unknown. In Toland et al’s (2014:229) study the staff members at a private university in Japan did not welcome a different LMS at the university, due to the fear that it was going to increase their workload.

Sub-theme 4: Transformation of assessment methods

The current online assessment methods were found to be lacking in some aspects; hence the lecturer participants suggested reconsidering the assessment methods that were being employed so that students could do authentic tasks whereby answers could not be copied from other sources of information. In this regard, Lecturer 2 said:

“We should rethink our assessments so that the task is not really something that the student can copy from a study guide or from anywhere else. It’s a task that is original.”

Another shortcoming that the lecturers felt needed rethinking was the objective nature of the tests usually prescribed to students in an online learning environment, whereby their imagination is limited as they can barely express their thoughts.

5.4.2 Emergent themes and sub-themes from the analysis of students’ interview data

The themes and sub-themes displayed below in Table 5.4 emerged from the analysis of students’ interview data. Some of these themes and sub-themes were similar to those that emerged from the lecturers’ interview data. A discussion of each theme ensues, predominantly reinforced with extracts from students’ interview data, and then lecturers’ interview data when applicable.

Table 5.4 Emergent themes and sub-themes from students’ interview data

Themes	Sub-themes	Corresponding Research Question
The uses of Moodle for ELT and learning	<ul style="list-style-type: none"> • Reasons for using Moodle • Tools in use to mediate learning 	How do lecturers and students involved in English language service courses use Moodle features to enhance ESL teaching and learning?
Potential strengths / successes	<ul style="list-style-type: none"> • Reflection through learning activities • Enhancement of English language skills 	What successes do the lecturers and students involved in English language service courses experience in the process of applying Moodle to enhance ESL teaching and learning?
Challenges	<ul style="list-style-type: none"> • Access to the Moodle application • Disorganised online course content • Minimal use of Moodle tools • Inadequate online feedback and guidance 	What challenges do the lecturers and students involved in English language service courses experience in the process of applying Moodle to enhance ESL teaching and learning?

	<ul style="list-style-type: none"> • Technical challenges 	
Suggestions for effective use of Moodle	<ul style="list-style-type: none"> • Improved student access • Improved navigation • More video lessons • Increased use of Moodle tools currently underused • Using audio materials in British English 	What guidelines can be used for the effective use of Moodle to enhance ESL teaching and learning at tertiary level in a developing context?

5.4.2.1 Theme 1: The uses of Moodle

The uses of Moodle emanated from the analysis of students' focus group interview data as one of the four major themes. This theme that sheds light on how students at the institution under study used Moodle for ELTL was divided into two other sub-themes that are: *the reasons for using Moodle* and *the tools in use to mediate learning*. Each of these sub-themes is explained below, reinforced with extracts from students' interview data.

Sub-theme 1: The reasons for using Moodle

The group interviews with students revealed how accessing Moodle easily makes it a motivating factor to use it. Also, its accessibility anywhere, anytime and the opportunity to study at own pace were additional inspirations.

"Wherever you are you can access it if you have Internet." (Student C EAP)

"It is self-paced, like you decide when to study, whatever time and at any place." (Student E PLU)

"Notes and some advice on how to study the course is (are) quite easy to find on Moodle." (Student B EPR)

Although Moodle has the potential to be accessed anywhere, anytime, which makes it motivating to use, access to computer facilities and the system itself surfaced significantly as a challenge, as reported later in Section 5.4.2.3, Sub-theme 1. One main challenge was the students' inability to access Moodle directly through an application. Furthermore, the Moodle interface was found to be student-friendly

regarding accessing the study materials, but it is a fluid situation as there were also contradictory reports.

Another fact that can be inferred from students' interview data is that students were motivated to learn online as opposed to doing paper work, as presented in the quote below by Student C EAP:

"With our generation moving mostly to being an online world, we would be incentivised to interact online than on paper." (Student C EAP)

The students were hence of the opinion that using Moodle prepared them better for the digital era, a notion that is in line with Jose (2015:27) and Toland et al (2014:229) who found Moodle activities to be relevant as they prepare students for work in the digital era, instead of doing paper work.

Among the reasons Moodle was found favourable to use was that it provides more lesson content compared to face-to-face lessons in a classroom setting as students can do more Moodle activities within a short period of time. Another reason Moodle activities were favoured was because they are shorter compared to activities in a face-to-face classroom setting, making it possible to cover a lot of activities within a short period of time, thus practising more, which enhances students' learning. This supposition is supported by the following excerpts:

"Moodle provides more activities than the ones we are getting from class." (Student D PLU)

"It gives us the class the chance to do so many activities whereas in class we do a few." (Student F EPR)

"Different activities allow us to practise more." (Student E EPR)

The instant feedback provided by Moodle was found to be another motivating factor for students to use it, unlike in a face-to-face classroom setting where instant feedback might not be possible as substantiated below.

"You get your marks there right after you just submit your work." (Student D EAP)

"It's usually multiple choice and then you receive your marks as soon as you finish with the post- and pre-test." (Student C EAP)

The instant feedback that Moodle provides has also been acknowledged by other researchers in the field, such as Jose (2015:26) and Simon (2019:112).

Sub-theme 2: The tools in use to mediate learning

A number of tools that mediate the learning process in the English language emerged from interviews with the student participants. In the intermediate and advanced English language courses, EPR and EAP respectively, the grading tool was found essential as it assists students to determine their progress. Also, it makes it easy for students to get their grades. Nonetheless, the grading tool was rarely used in the fundamental English language course, PLU. The following extracts substantiate these assertions:

“When you do an assessment and this grading, then you can tell how good or where your weak points are..., (and) where you’re correct.” (Student A EPR)

“We do quizzes, but not always.” (Student C PLU)

The student participants also revealed how the chat forum was infrequently used in the basic and intermediate English courses, but it was more popular in the advanced English course, EAP, especially when compared to email. It was principally used by the students as a relaxed learner support tool to air their views and opinions with the lecturer and other students, as well as to ask questions when they needed clarity, as shown in the excerpts below. The infrequent use of the chat forum in the basic and intermediate courses concurs with the work of Dogoriti et al (2014:257) whereby only two percent of the students doing the English language course had used the chat tool during the study period, thus revealing a lack of enthusiasm to use it.

“Chat [is] used at times, depending on what you want to know or find out.” (Student E PLU)

“I think the chats [are] sufficient for us to communicate to the lecturers and voice our opinions or ask questions.” (Student C EAP)

The embedded website links also had a role to play in the learning experience as they were used to broaden understanding of the lesson content by accessing additional learning materials, as corroborated below.

“Lecturers upload website links that you can follow.” (Student E EPR)

“The links are also stated within Moodle which is linked to another application such as YouTube or Wikipedia, so the moment you go within Moodle, it will give you the information you need.” (Student A EAP)

These findings concur with the views the lecturers expressed in Section 5.4.1.1, Sub-theme 4, whereby the embedded web links were found to be beneficial as they broaden understanding.

Although not used to enhance English language skills per se, another tool that emerged as a popular tool that supports the learning experience was the calendar that was highly used in all three courses. The calendar was mostly used by students in the three English language courses under study, and they found it very helpful as it kept them updated on different activities, especially the due dates, as illustrated below:

“We use the calendar the most.” (Student E PLU)

“Our test date, activity dates, due dates for certain assessments, all of it on the calendar, so it is very useful.” (Student E EPR)

“I like going there by the calendar to check which activity is due, how many days I have to complete an activity.... It’s really useful for me.” (Student C EAP)

Also, the e-mail was found valuable to facilitate communication between the lecturer and students in the fundamental and intermediate English courses. However, students in the advanced English course, EAP, preferred chatting over sending an e-mail that they found to be too formal, tedious and uncomfortable, as articulated below.

“We use the email to contact the lecturers.” (Student A EPR)

“They also use it to inform us and remind us sometimes on test dates and showing: ‘Come for classes’.” (Student B EPR)

“It’s not that comfortable for a student to constantly type e-mails, but in a chat, it makes us feel more comfortable.” (Student A EAP)

Nevertheless, although beneficial, the interviews with the students substantiated how some of these tools were not being used to the full capacity. To start with, the student participants indicated how the discussion forum was available on the Moodle platform, but it was hardly used in the basic and intermediate English language courses, PLU and EPR respectively. It was used in the advanced English language course, EAP, but still minimally. However, the students in the advanced English language course

found the discussion forum beneficial as it facilitated generation of different ideas on real-life matters, as can be noted from the extracts below.

“There is one available [discussion forum] but there is not much discussions displayed on it.” (Student F EPR)

“We only use it [discussion forum] sometimes, but not for this course.” (Student C PLU)

“You just open up a discussion amongst the students ... it assists us just to see or obtain different ideas from other students.” (Student A EAP)

Besides learning from each other as Student A EAP above indicates, other studies in the field indicate how discussion forum plays a crucial role in the development of students' communicative language skills (Bernsteiner et al 2010:175; Brandl 2005:16; Jose 2015:23 and Li 2013:219). It is thus an essential tool for ELTL.

5.4.2.2 Theme 2: Potential strengths and successes

Although an undesirable occurrence, the students' interview data revealed very few successes compared to the list of challenges presented in the subsequent subsection, Section 5.4.2.3. This state of affairs is not unusual in research pertaining to the use of technology in education. A number of similar studies reveal more challenges than successes, such as Nenge et al (2012:119) and Tshabalala et al (2014:103). Only two sub-themes emerged in support of successes related to the use of Moodle in the three courses of study under research: the use of pre- and post- learning activities that afford an opportunity for reflection, and how the use of several Moodle tools enhance understanding of a variety of English language skills. Each of these sub-themes is discussed below.

Sub-theme 1: Reflection on pre- and post-learning activities

The pre- and post-assessment activities were found valuable by the students as they afforded an opportunity for self-reflection or self-evaluation, and they reinforced understanding of the lesson content as conveyed in the following extracts:

“In a sense the pre-test gives a little bit of self-evaluation of where you stand before you even start to learn.” (Student A EAP)

“We can evaluate the difference between when you did it before you were taught and after you were taught and then you see what you learned in-between and where else you are lacking in a certain topic.” (Student E EPR)

Besides reflection being one of the key tenets of a constructivist paradigm, Suppasetserree and Dennis's (2010:39) study reveals how the student participants in their study found it advantageous, and it was a skill they wanted to apply to other courses of study. Reflection is one of the essential skills in the learning process as it enables students to identify their weaknesses and strengths. This helps the students to analyse situations to determine how to arrive at solutions, thus engaging them in critical thinking.

Sub-theme 2: Enhancement of English language skills

Moodle activities were found valuable regarding enhancement of a variety of the English language skills, namely speaking, reading, writing, and listening, as well as grammar and vocabulary. This notion is clear from the comments below, emanating from the interview data of the three courses under study.

"The level of interaction you have with other students can also assist your English language skills; you see how they write and how they speak. They can improve your grammar." (Student A EAP)

"The more you use it, the more you can express in terms of speaking and writing your English." (Student C PLU)

"You sometimes also learn new words and extend your vocabulary." (Student D EPR)

The embedded videos were also found to be advantageous when one needed extra guidance for better comprehension of the lesson content, although it transpired from the group interviews that the videos were not popular in the fundamental English language course, PLU, and this explains why the PLU participants pleaded for video lessons. These deliberations are corroborated in the following extracts:

"A good example I picked up was when you use Moodle in the English course, there's usually videos that assist you when you don't understand." (Student A EAP)

"The videos we watch, so much better than in class; some of us we learn better by watching someone say." (Student F EPR)

"Provide us with videos." (Student A PLU)

The fact that students found videos beneficial to use to learn the English language concurs with Alhothli (2015:51), whereby students with insufficient language skills appealed for more video lessons. Also, the student participants in Ziad's (2016:321)

study found video lessons that were embedded on Moodle beneficial to learn the English language.

5.4.2.3 Theme 3: Challenges and threats inhibiting the use of Moodle for English language teaching and learning

Similar to the lecturers' interview data where more challenges were experienced compared to successes, the students' interview data also revealed more challenges compared to successes. The challenges and threats to the effective use of Moodle for ELTL that emerged were access to the Moodle application, disorganised online course content, minimal use of the Moodle tools, inadequate online feedback and guidance and technical challenges and are narrated below.

Sub-theme 1: Access to the Moodle application

Accessing the Moodle application to engage in the e-learning content directly, without going through a web browser, was found to be a major challenge, as per the excerpts below.

“On smaller devices, like a cell phone, it becomes difficult going through the whole web browser and then access e-learning.” (Student A EAP)

“We don't have direct access through the Moodle app; we have to go through a web browser.” (Student A EAP)

The problem of students' access to the LMS also surfaced in the lecturers' interview data, where the lecturers reported how inadequate computer facilities was a challenge among the students (see Section 5.4.1.3, Sub-theme 1). This is why it was sometimes deemed essential for the students to access the system on smaller devices as the computers were inadequate.

In a similar vein, the students' interview data revealed how language barriers were also an impediment to the successful use of Moodle in terms of navigating the interface. Navigation through the system was reported to be a challenge to students with poor English language skills, as reflected in the extracts below. It was on this basis that the student participants recommended Moodle settings that would make it

possible for the students with poor English language skills to navigate the system using multiple languages, as presented below.

“It is difficult to navigate through this interface for students who don’t really understand or may not be English speaking.” (Student C EAP)

“If they can have settings as to guide, or let me say to navigate through Moodle, it can be in multiple languages.” (Student A EAP)

Challenges regarding the Moodle interface need to be looked into as it is a fluid situation. The student participants in Suppasetserree and Dennis’s (2010:39) study found the layout of Moodle to be well-structured and easy to navigate, contradicting the views that were expressed by some of the participants in the current study.

Sub-theme 2: Disorganised online course content

The students’ interview data revealed how there was a need to keep the online course content updated as it was sometimes confusing. This shortcoming arose from the old course content that was not removed from the platform even when it was not in use, for example course documents based on the old curriculum that was no longer in use, especially the assessment tasks. Triangulation of the data collection methods also revealed this deficiency during document analysis of the online course content, Section 5.4.4.1, when the assessment tasks for the previous four years were still displayed on the Moodle platform, meaning the content had not been updated. Below are some excerpts in support of this assertion.

“Old content from when we were still Polytech, especially some things that are dated 2013, that may not be so relevant in our studies.” (Student C EAP)

“One of the challenges I’ve experienced is that sometimes you have been instructed by the lecturer that you should listen to a certain audio or read a certain story on Moodle; ...you can’t find the right one.” (Student C PLU)

This finding is not atypical in educational technology. Carvalho et al (2011:836) report how the student participants in their study complained that it was sometimes a challenge to locate the course material when using the LMS.

Sub-theme 3: Minimal usage of the Moodle tools

Some of the embedded Moodle tools were not being used effectively as some were rarely used. Nonetheless, the interview data, combined with observation data and document analysis of the online course content, point to the fact that the minimal usage of the Moodle tools was more apparent in the basic and intermediate English language courses, compared to EAP where a number of tools had been tried out effectively. The extracts below support this finding.

“Some of these tools are not really that active, especially the forums and blogs and the chat; if many people were using these tools more, they’d improve skills.” (Student D EPR)

“There is one available [discussion forum] but there is not much discussions displayed on it.” (Student F EPR)

“We only use it (discussion forum) sometimes, but not for this course.” (Student C PLU)

The use of some of the Moodle tools was found to be minimal or sometimes not even in use and thus unfavourable. This finding ties in well with the work of Penãfiel et al (2016:102) and Gamundani et al (2015:1992) whose studies indicate how the Moodle platform was found to be underutilised, as well as Dias and Diniz’s (2014:313) study that reveals how discussion forum was found to be underutilised.

Sub-theme 4: Inadequate online feedback and guidance

The inability of the lecturers to provide constructive feedback on learning activities using Moodle was found to be a challenge. The student interviews revealed how students were not usually satisfied with the feedback they received on their exercises and tests as the mark alone was insufficient for them to find out what to do in order to improve their performance as is evident from the extracts below:

“The activities don’t give feedback to where you went wrong. Sometimes you get zero out of five and then you don’t understand why.” (Student C EPR)

“So, when you’re wrong you go for extra miles to find out, ‘What was my wrongdoing? What did I do wrong?’” (Student A PLU)

These findings are consistent with the findings from the lecturers' interview data which showed how the lecturers showed discontent with Moodle online assessment activities due to their objective nature which is a limiting factor (see Section 5.4.1.3, Sub-theme 3). However, the inability of the lecturers to provide feedback emanates from the inability to use the system effectively as Moodle is designed with feedback options that can be employed to provide feedback in the process of language instruction (Sahin-Kizil 2014:177). For example, feedback can be provided on the blog (Jose 2015:23) and assignments can be graded online whereby feedback can also be provided online (Jose 2015:26).

Sub-theme 5: Technical challenges

Corresponding to the lecturers' interview data that revealed technical challenges affecting the use of the LMS, technical problems that hinder effective use of the system also surfaced in the students' interview data. The problems ranged from the slow or even inaccessible Internet to the server that went down constantly, as well as the weak Wi-Fi. The extracts from the students' interview data below say it all.

“The server goes down, and now until it is back up again, you are just in an inconvenienced space for that hour.” (Student A EAP)

“The Internet itself. Sometimes it is very slow; sometimes it is not working at all.” (Student B PLU)

“When the Wi-Fi connection is weak. (Student B EPR)

The challenges that are hereby reported are an indication that the institution under study is not spared from typical technical challenges that are experienced in the process of integrating technology, especially in developing countries (Al Zumor et al (2013:102); Dube & Scott 2016:180; Khan et al 2012:67; Nenge et al 2012:119; Tshabalala et al 2014:107; Simon 2019:123-126).

Another technical challenge that emanated from the students' interview data was the inability of the students to notice incoming notifications from the lecturers as the system did not keep them alerted. The quote below illustrates this dilemma.

“When we receive notifications on the e-learning system, we are not aware of them.” (Student E EPR)

5.4.2.4 Theme 4: Suggestions for effective use of Moodle

The student participants were also asked if they had suggestions on how Moodle could be effectively used in the department to improve ELTL. The interview data brought to light suggestions for the effective use of Moodle in ELTL from the students' perspective as listed below:

- Improved access to the Moodle application;
- Improved navigation; and
- Increased use of Moodle tools currently underused.

Each of the emergent sub-themes listed above is discussed below, reinforced with excerpts from students' interview data.

Sub-theme 1: Improved access to the Moodle application

As the arguments related to accessing the Moodle application featured strongly in the students' interview data, one of the suggestions that was given was to make the Moodle application available to the students for ease of accessibility. This would relieve the burden of accessing Moodle through the web browser, saving time and effort in the process. The statement *"adding NUST to the actual Moodle app"* by Student A EAP is in support of this appeal.

Nonetheless, availability of the Moodle application might not be a solution to the students' problem of easy accessibility. This is because not all the students had cell phones that could upload a number of applications, due to limited space. This concern is shown in the following quote by Student B EPR:

"I have also seen that they have an app but most of us don't download it because we don't have space on our phones."

Studies in the field report access to infrastructure to be a challenge to effective use of ICTs, such as Salehi and Salehi 2012:218 and Simon 2019:123.

Sub-theme 2: Improved navigation

Another concern related to accessibility was navigation of the LMS that was reported to be a challenge to students with inadequate English language skills. Consequently, the student participants appealed for Moodle settings that allow navigation in multiple languages so that students with poor English language skills are not excluded. In support of this argument is the extract below:

“If they can have settings as to the guide or let me say the navigation through Moodle, it can be in multiple languages.” (Student A EAP)

The participants made it clear that navigating the system in multiple languages would not affect the subject content, because besides the instructions for navigating the system, the subject content remains in English. This deficiency overflows to implications of the language policy on students’ learning, a matter that is beyond the scope of this study.

In a similar vein, the lecturers’ interview data also revealed discontent with the new Moodle interface that was reported not to be user-friendly compared to the old one (see Section 5.4.1.3, Sub-theme 4). Perhaps this is what adds to the difficulty of navigating the system from the students’ perspectives.

On the other hand, it can be seen from the quotation below by Lecturer 6 that the older version was user-friendly, but then it was the constant changes to the LMS that resulted in the new interface not being user-friendly, as Lecturer 6 reports:

“These constant changes are a bit of a hindrance, because with the older version, you could like create..., you could maybe have like four icons for the four different skills ...with this new one, it’s not friendly.” (Lecturer 6)

In a similar vein, the student participants in Alhothli’s (2015:51) study appealed for improvement of the Moodle interface (see Section 3.7.1), resulting from the challenges encountered in the process of using Moodle for ELTL. It is thus a matter that needs some consideration.

Sub-theme 3: Increased use of Moodle tools currently underused

A suggestion was given for the lecturers to make use of some embedded Moodle tools that were infrequently used, such as the discussion and chat forums and the blogs. This is an indication that students had noticed that these tools have the potential to enhance their learning in certain ways. Regrettably, these are the tools the lecturers reported to be in need of training to be able to use them effectively.

One tool that was also specifically singled out was videos. A request was made for the lecturers to use more video lessons to enhance understanding. This request was made by students in the fundamental English language course, PLU, where the use of Moodle tools was reported to be minimal. This makes sense, because this is the course where many students need more guidance in order to enhance comprehension. Some of the student participants reported how they learn better by watching the videos, as was discussed earlier in Section 5.4.2.2, Sub-theme 2. At this point it is worth noting that the use of the tools varied from lecturer to lecturer, because one of the lecturers in the fundamental English language course reported satisfactory usage of the video lessons, as substantiated below:

“I use a lot of videos in my teaching and the students like that because they can always go back to the video if they haven’t understood...” (Lecturer 6)

Of significance in this regard was the concern raised by the student participants, that the audios they used for teaching and learning were too American whereas it was a requirement for them to use British English. It was on this basis that the student participants appealed for the audio lessons to be shifted to British English. *“They should use even UK or British English”*, Student A PLU reported, even though the statement is not quite clear due to the language barriers as this student was doing the fundamental English language course, making this comment relevant.

5.4.3 Non-participant observation data

Observation data were collected and analysed to obtain first-hand information on what transpires at classroom level, as well as to corroborate findings from individual and focus group interviews. The observations focused on the use of Moodle for augmented learning in both face-to-face and laboratory classroom settings. The face-to-face classroom observations took place in six different classrooms, but the laboratory

observations took place in only three laboratories that the lecturers used on a rotational basis. As four teaching hours were allocated to each course per week, three of these hours were taught in classrooms on a face-to-face mode, while one hour was taught in the laboratories.

The observation sheets that were used during data collection (Appendix F) and the notes the researcher took during observations were also analysed to present a clear picture of the use of Moodle for ELTL at the research site. The observation of face-to-face lessons did not reveal much information regarding the use of Moodle. Two themes emerged: ***the uses of technology in English language teaching and learning***, and ***the challenges that were encountered***. These themes are described next, in light of the sub-themes that emerged from the interview data.

Theme 1: Uses of technology in language teaching and learning

This theme entailed a broader outlook of what transpires at classroom level in the process of teaching English language in the three courses under study. The emergent sub-themes involved ***the tools in use*** that showed the types of activities the students engaged in, the use of ***the augmented learning approach***, as well as ***language skills*** that were found to be in use.

Sub-theme 1: Tools in use

Video and audio clips emerged as the most used tool in face-to-face classes, especially in EPR and EAP. This finding concurs with the views the lecturer participants expressed in interviews (see Section 5.4.1.1, Sub-theme 4). The use of video and audio clips was observed in all three courses, although the video lesson was only observed once in the fundamental English language course, PLU. This observation is in line with what was shared by the participants in the PLU group interview, that there was minimal or even non-existent use of video lessons, depending on the individual lecturers (see Section 5.4.2.2, Sub-theme 2).

In the laboratories, video lessons, as well as other web links, were also embedded on Moodle as tutorial lessons to supplement what was taught in the face-to-face classrooms in the advanced English course, EAP. Again, this corroborates the findings from interviews (see Section 5.4.2.3, Sub-theme 3) and document analysis of the

Moodle online content (see Section 5.4.4.1) that revealed that the Moodle tools were used infrequently in the basic and intermediate English language courses, PLU and EPR respectively, but intensified in the advanced English language course, EAP.

Besides the video clips, and the embedded web links, the researcher also observed a few other tools in use, such as the quizzes and the assignment tool that were used minimally during the observation period. The researcher did not observe many of the embedded Moodle communication tools being used during the observation period, such as the discussion or chat forums, but there were a few log reports available on the LMS that the researcher analysed. Nevertheless, this does not imply that these tools were not used or were used ineffectively in the three courses under study; it could be due to the time observations took place, when the first half of the semester had already taken place.

On the other hand, minimal use of the Moodle communication tools, forums and chat, emerged as one of the main challenges from interviews and analysis of the online content, and this might be the explanation. This finding is contrary to findings in other studies, such as Suppasetsee and Dennis (2010:37) where the forums, chat and discussion, emerged as the favourite tools, and student discussions were linked to their previous lessons. This could be a shortcoming at the research site that needs intervention. Nevertheless, the matter is not atypical to the research site because minimal use of the discussion forum has also been noticed in other contexts. For instance, the call by student participants in Dias and Diniz's (2014:313) study to make discussion forums mandatory points to the dissatisfaction with the state of affairs at that institution at that moment, revealing minimal use of the tool.

Sub-theme 2: The use of the augmented learning approach

Exemplary use of the augmented learning approach was observed in all the three courses under study during observations. On numerous occasions the lecturers asked students to access Moodle lessons after classes, to supplement face-to-face teaching. Some of the lessons that were presented in face-to-face classes were follow-ups on the lessons that had already been presented via Moodle. It was a common habit for the lecturers to highlight the tasks that were uploaded to Moodle in face-to-face classes, and the students had the freedom to access the Moodle lessons through their

personal laptops while in face-to-face classes, although not all of them had access to personal laptops. Many of the Moodle lessons that the students were referred to for further practice after classes were video and audio clips, although in PLU only Lecturer 6 used the video clips.

As there is a close link between the blended and augmented learning approaches, it is sensible to report how exemplary use of the blended learning approach in ELTL has also been experienced in other educational settings (Al Zumor et al 2013:102-103; Penãfiel 2016:102).

Sub-theme 3: Language skills in use

Integrated English language skills were used in the three courses that were studied, as well as activities for grammar and vocabulary building. Speaking skills were dominant during the period of observations, because this was the time when students doing all three English language courses under study were also presenting their work. The skills were not taught or practised in isolation, but no reading skills per se were observed in EPR where lessons on presentations were dominant during observations.

The observation data, for example discussion forum threads, revealed how Moodle facilitates comprehensible input and output skills that have potential to enhance grammar and language structures as reported by researchers in the field (Gass et al 2013:357; Hirschel 2012:100).

Theme 2: Challenges encountered in face-to-face and laboratory classes

The observation data revealed only a few challenges that had been experienced. The challenges that were observed as sub-themes are ***technical challenges*** and ***language barriers*** that are discussed next.

Sub-theme 1: Technical challenges

Technical challenges were observed in both face-to-face and laboratory classes, ranging from a malfunctioning projector that forced Lecturer 2 to move to another venue during the lesson, to a video clip without sound that forced Lecturer 6 to cancel the class as the video was the main lesson. Nevertheless, Lecturer 6 told the students

to watch the video later during their free time as the video had been embedded to Moodle. This is an example of how Moodle has the potential to enhance learning as students were able to access it even when the face-to-face class had been cancelled. Another technical challenge that was experienced was the inability of the lecturers to notice when an assignment had been submitted through Turnitin, a challenge that made Lecturer 2 ask students to provide hard copies as evidence of submission of their assignments as he was unable to trace their online submissions. Also, regarding feedback, the students were only able to see their marks but not the feedback that Lecturer 2 had written for individual students.

All these challenges show how teaching with technology has drawbacks that could be major obstacles to novice lecturers, and it is a common trend in educational technology as it is a challenge that has been experienced in a variety of educational settings (Al Zumor et al (2013:102); Dube & Scott 2016:180; Khan et al 2012:67).

Sub-theme 2: Language barriers

Code-switching featured as a challenge when students were engaged in the discussion forum. Due to language barriers, students who spoke the same vernacular alternated between their mother language and English during the discussions. This occurred mostly when students wanted to express ideas more accurately as they struggled to do it in English. This concern featured also in the Lecturers' interview data as evidenced by *"As they are commenting [in the discussion forum] they mixed codes, where they were also using Afrikaans."* (Lecturer 5)

This problem was detected even in the advanced English language course, EAP. Similarly, the work of Alhothli (2015:60) points to the struggle the students had to use Moodle effectively due to language barriers

5.4.4 Document analysis

Document analysis was aimed to shed light on procedures that govern the use of Moodle as an e-learning tool to enhance ELTL. The analysis was done in two phases: analysis of the Moodle online content of the three English language courses under study, and then the analysis of relevant policy documents, such as e-learning policy documents. The subsection below discusses the findings from the analysis of the Moodle online content of the three courses, and is followed by another subsection

discussing what transpired regarding the analysis of policy documents. The major component of document analysis entailed the online content of the three English language service courses as compared to the analysis of policy documents. This type of analysis was essential to corroborate what the participants shared in individual and group interviews, as well as to dig deeper to gain a broader perspective of the use of Moodle for ELTL at the research site.

5.4.4.1 Document analysis of online course content (Part A)

When the researcher asked for permission to conduct research in the DoEL, she also asked for permission to be linked to the online course content of the three courses under study in order to get a distinct picture of the problem under study.

The analysis focused on the tools in use, such as the unit lessons, embedded video clips, embedded website links, online quizzes and other assessments, as well as chat and discussion forums. What transpired from the analysis of the Moodle content of the three English language courses under study is displayed in Table 5.5, below, and is subsequently discussed at length. The analysis was guided by the emergent theme of *tools in use* that emanated from the analysis of lecturers' individual and students' group interviews. This type of analysis also assisted to corroborate findings from the interviews by revealing exemplary and non-exemplary teaching practice.

Table 5.5 Analysis of Moodle online content for PLU, EPR and EAP

Course content analysed	Tools accessible	How the tools were used
Principles of Language Usage (PLU) Online Platform, Semester 2 2018)	Assignments Chats Feedback Forums Quizzes Resources	<p>Assignments: There were only two “assignment” tasks which were brief exercises that could be done in the laboratory in a few minutes.</p> <p>Chats: There were two student-led chat sessions with very few participants. The third chat session was from the previous year.</p> <p>Feedback: Only the institutional evaluation of teaching and courses by students was displayed. The pre-assessment task that was displayed seemed to be stray, and there was no feedback.</p> <p>Forums: Two types: general and learning forums. Only one announcement from the previous year was uploaded in the general forum. An exemplary discussion topic (displayed below) was uploaded in the learning forum, but was the only activity, with very few participants.</p> <p>Quizzes: The most used tool, with a high number of attempts for quizzes: pre- and post-assessment activities, diagnostic test and a listening test.</p> <p>Resources:</p> <ul style="list-style-type: none"> • Inconsistency regarding the course name: outdated course name used for the single activity available, not PLU, as well as for the study guide. • The single activity available is a copy of a test paper that was used in a face-to-face class. • No content under “assessment” that falls under Resources. • No content for the six learning units displayed, except for Unit 1: Grammar, which is a soft copy of the study guide.
English in Practice (EPR) Online Platform, Semester 2 2018	Assignments Chats Feedback Forums Quizzes Resources SCORM packages	<p>Assignments: Page not updated; all the tasks displayed were for the previous semesters, except for one that was designed during staff training.</p> <p>Chats: Only one chat session from the previous year, with irrelevant content.</p> <p>Feedback: Only institutional evaluation of teaching and courses by students was displayed.</p>

		<p>Forums: Nothing presented on both the general and learning forums. Only sample discussion forum topics that were prepared during staff training.</p> <p>Quizzes: Only work from the previous year, 2017, was displayed – irrelevant content.</p> <p>Resources and activities: This is the most highly used tool. Pre- and post-assessment activities were posted (screenshot underneath), but only one unit was covered.</p> <p>SCORM packages: Irrelevant content - both quizzes uploaded were from the previous year.</p>
<p>English for Academic Purposes (EAP) Online Platform, Semester 2 2018</p>	<p>Assignments Chats Feedback Forums Quizzes Resources Turnitin Assignments</p>	<p>Assignments: One exemplary authentic learning task posted, with three embedded web-links (displayed below).</p> <p>Chats: Student-led chat sessions that ran throughout the semester.</p> <p>Feedback: Only mid-semester evaluation of teaching and the course was displayed.</p> <p>Forums: The general forum had two general announcements from the lecturers. Student participation in the discussion forum under the learning forum was high but needs improvement (refer to the sample forum underneath).</p> <p>Quizzes: High degree of student participation in the quizzes, and there were many quizzes posted throughout the semester, covering many units.</p> <p>Resources: A variety of learning resources were displayed, ranging from videos to embedded pdf reading articles and PowerPoint slides.</p> <p>Turnitin Assignments: Used for a similarity check report. Instructions on how to use Turnitin provided, embedded.</p>

Even though quizzes emanated to be the most highly used tool in the fundamental English language course, PLU, the collaboration and interaction elements were missing in many of the activities as students worked individually. Also, some of the quizzes and assignment tasks were very simple activities that could be done in a face-

to-face classroom setting within a short period of time, thus not engaging the students in mental processing as per the social constructivism theory of learning.

Nonetheless, a discussion forum activity that also serves as an example, unveiled below in Figure 5.1, had been posted to the PLU learning forum, featuring reflection, collaboration and interaction elements that students could apply in the process of constructing new knowledge. This post-assessment task corroborates with students' interview data in that it provides an opportunity for reflection, in alignment with the views expressed by the student participants in Section 5.4.2.2, Sub-theme 1.

Reading Comprehension

After completing the [reading comprehension](#) handout, I would like you to reflect on the process or strategies that you utilised to read through the text and in answering the questions.

There are certain strategies that you can use to effectively answer your [reading comprehension](#). One of them is the SQ3R method.

Research on this method and discuss the following:

1. What is the SQ3R method?
2. Discuss the 5 steps.
3. What is the benefit of using this strategy compared to other strategies?

Figure 5.1 Sample PLU discussion forum task

However, the student posts indicate that the instructions for the task were not clear. The task was meant for discussion among the students, but the students simply posted answers to the three questions asked, directed to the lecturer. This shortcoming points to the need to provide clear instructions to the students, especially when they have limited exposure to the online learning environment. Participation in the forum was also poor as only a few students from one class group had joined the discussion, although the PLU course had more than ten groups that semester.

In the EPR course the assignments tool had not been updated, with tasks outdated as far as the previous four years. Only one task was for the semester under study, but there was no single submission as the task was designed during staff training at the beginning of the semester. Outdated tasks also featured as a challenge in the students' interview data (see Section 5.4.2.3, Sub-theme 2). On the other hand, learning materials can be stored on Moodle as a repository, to make course

administration manageable (Suppasetserree & Dennis 2010:42), but it is critical to keep the students' activities updated to avoid confusion.

Nevertheless, one of the assignment tasks from the previous semester displayed in the *Assignments tool* was a good example of a blog assignment task, and the lecturers need to be motivated to continue with assignment tasks of this nature. The task promoted interaction among the students, and scaffolding was provided by the lecturer by giving clear guidance and instructions on what students should do and how they should comment on each other's blogs. Also, the task involved collaborative construction of knowledge and critical thinking as it required students to exchange ideas by discussing the subject matter in their blogs. This EPR task which used Moodle for ELTL is presented in Figure 5.2 below, together with an abridged sample rubric that was used for assessment.

EPR511s Blog

Don't forget that part of your marks come from having a blog with 3 comments each week. Each week you should comment on some of your classmates' blogs. Your comments should be a minimum of 10 and maximum of 15 words in length and should be substantial. Do not simply write "Nice job." or "pretty pictures!!!" Read the blog post and write a thoughtful response to what the person has written. You may offer constructive criticism; but remember to also discuss the subject matter in the blog. Please read the instructions below (4 pages) for help on commenting on blogs.

Blog rubric: EPR 511S [35 marks]

Blog design [6]	Number of followers/ Length of comments [9]	Grammar [10]	Content [10]
Colourful text, pictures, own comments. 3 blog entries over a period of 3 weeks. [6]	<p>Has 3 or more followers.</p> <p>Comments relevant and 12-15 words or longer every week.</p>	<p>Excellent, very fluent and contains above-average language use with 1-2 mechanical errors [articles, tenses, concord, spelling, prep.] Used mostly own words.</p> <p>No SMS writing. [8-10]</p>	<p>Entries relevant, written about engaging topics and 80-100 words or longer every week. Entries reflect a common theme throughout the blog; entries express opinions and/or promote discussion; entries reflect critical thinking. [8-10]</p>

Figure 5.2 Sample EPR blog task and rubric

On a negative note, an observation was made that most of the work uploaded to the EPR platform was basically from the previous years, pointing to the need to keep the platform content updated. For example, all the quizzes that were uploaded to the *Quizzes tool* were from the previous year. This concurs with the findings from students'

interviews, that sometimes they get confused by the old content displayed on the platform, as exemplified below once more:

“You can go onto Moodle and be searching through or trying to find a document or a specific file, but then you’ll find out that you are looking at something that has been previously there.” Student C EAP

The *Resources and Activities tool*, where the pre- and post-assessment tasks had been uploaded, emanated to be the most highly used tool in EPR as illustrated in Figure 5.3 underneath.

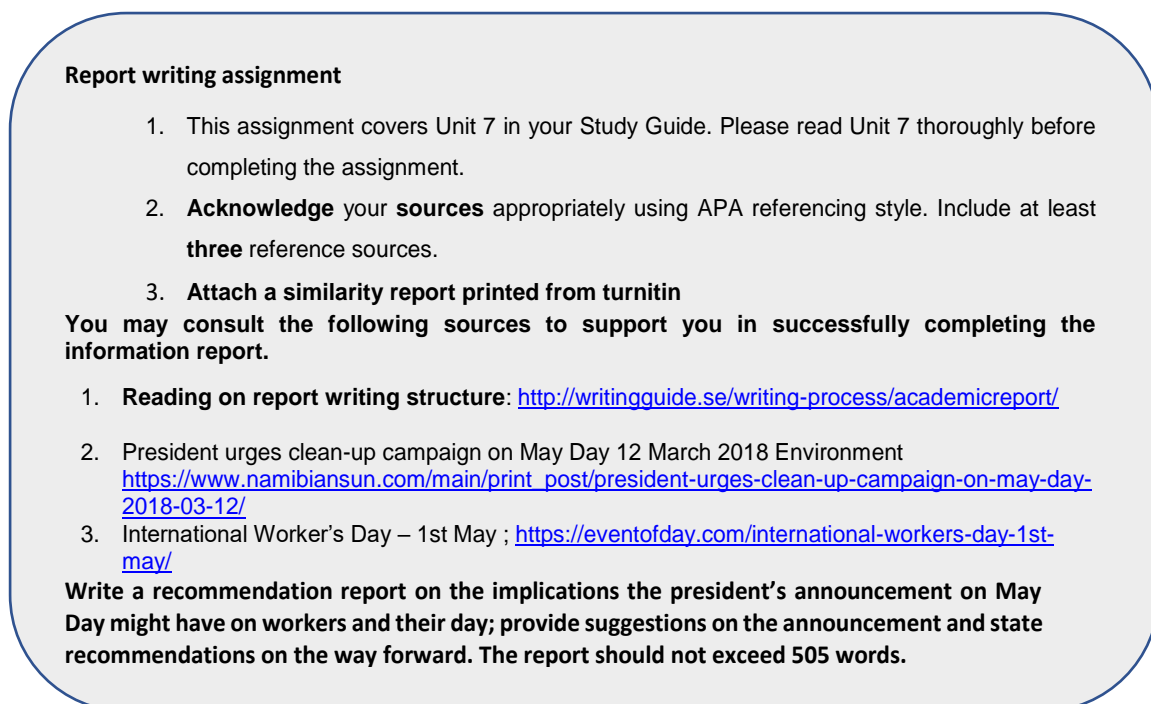
Resources and Activities			
	Unit 1 Quiz tenses	Sunday, 1 October 2017, 9:24 AM	
	Rain Drops : Sample		
	Unit 1 -Gerunds and Infinitives (Pre-Assessment Activity)	Saturday, 10 March 2018, 4:30 PM	Attempts: 108
	Unit 1-Gerunds and Infinitives (Post-Assessment Activity)	Saturday, 10 March 2018, 4:30 PM	Attempts: 144
	Unit 1-Tenses (Pre Assessment Activity)	Friday, 23 February 2018, 4:30 PM	Attempts: 164
	Unit 1-Tenses (Post Assessment Activity)	Wednesday, 28 February 2018, 4:30 PM	Attempts: 191
	Unit 1-Active and Passive Voice (Pre-Assessment Activity)	Saturday, 10 March 2018, 4:30 PM	Attempts: 203
	Unit 1-Active and Passive Voice (Post-Assessment Activity 1)	Saturday, 10 March 2018, 4:30 PM	Attempts: 235
	Unit 1-If Conditionals (Pre-Assessment Activity)	Saturday, 17 March 2018, 4:30 PM	Attempts: 149
	Unit 1-If Conditionals (Post Assessment Activity)	Saturday, 17 March 2018, 4:30 PM	Attempts: 155

Figure 5.3 Sample EPR resources and activities tool

However, it is cynical to note that with the exception of only one activity, all other pre- and post-assessment activities were due on the same dates. Again, this challenge could be attributed to the poor management of online assessment activities that were not always updated (see Section 5.4.2.3, Sub-theme 2). One would expect the pre-

assessment tasks to be conducted before the main assessment activity, and then the post-assessment activities to be conducted after the students had done the main assessment activity. Also, it is worth noting that all the pre- and post-assessment activities were only based on the first unit. On a positive note, the high participation rate of students in these activities is evidence that students liked them. This concurs with findings from the interviews with the lecturers that revealed how students had a tendency to put more effort on Moodle activities that contributed to assessment marks.

The document analysis of the advanced English language course, EAP, revealed an enhanced use of Moodle for ELTL at the research site in terms of the quality of the assessment tasks, as well as the quantity and quality of other learning activities. Participation of the students in the chat sessions was high, and the sessions lasted for the whole semester, unlike in the fundamental and intermediate English language courses where chat sessions were almost non-existent. This observation concurs with the revelation made during student group interviews that they preferred participating in chat sessions than writing e-mails (see Section 5.4.2.1, Sub-theme 2). To substantiate the findings hereby verbalised, a sample authentic learning assignment task is displayed in Figure 5.4 below.



Report writing assignment

1. This assignment covers Unit 7 in your Study Guide. Please read Unit 7 thoroughly before completing the assignment.
2. **Acknowledge** your **sources** appropriately using APA referencing style. Include at least **three** reference sources.
3. **Attach a similarity report printed from turnitin**

You may consult the following sources to support you in successfully completing the information report.

1. **Reading on report writing structure:** <http://writingguide.se/writing-process/academicreport/>
2. President urges clean-up campaign on May Day 12 March 2018 Environment https://www.namibiansun.com/main/print_post/president-urges-clean-up-campaign-on-may-day-2018-03-12/
3. International Worker's Day – 1st May ; <https://eventofday.com/international-workers-day-1st-may/>

Write a recommendation report on the implications the president's announcement on May Day might have on workers and their day; provide suggestions on the announcement and state recommendations on the way forward. The report should not exceed 505 words.

Figure 5.4 Sample EAP authentic learning task

The assignment above was the only one that was posted, but it was an exemplary authentic learning activity. It had three embedded web-links for students to search for extra information in order to produce good and quality work, and it required online submission through an embedded Turnitin tool as a similarity report had to be attached to the assignment. Also, the assignment was authentic in the sense that it was based on a national issue that was taking place by the time the assignment was given, the cleaning campaign that had to take place on the workers' public holiday. Again, the assignment exemplifies an augmented learning approach as it is linked to a specific unit in the study guide that was also presented on a face-to-face mode, and the students could do the assignment anytime, anywhere.

Participation of the students in the discussion forum was high in EAP, but there was only one discussion topic posted. Also, the discussions were poorly threaded as the majority of the students only replied to the questions posted by the lecturers, directing the answers to the lecturers instead of interacting with other students, although the task was authentic. The student-student interaction element was thus missing. Another finding was that students showed little interest in consulting reference sources as per the task instructions, to optimise the learning experience. This intensified the role of the lecturer as a facilitator of the discussion forum.

The EAP *Resources* tool was packed with a variety of learning resources, including a few from the previous year. Many of the lessons had embedded videos; there were many embedded reading articles in pdf format, PowerPoint slides prepared by the lecturers, and activities in word documents. This creates a discrepancy regarding the way the Moodle platform was used in the lower and upper English language courses at the research site. Another EAP tool that was packed was the Quizzes tool, as displayed in Figure 5.5 below.

Quizzes Week	Name	Quiz closes	Attempts
25 January - 31 January	Tutorial Activity Semester 2	Sunday, 1 July 2018, 3:54 PM	(Nothing displayed)
	Unit 5: Post-test: Text Organisation	Friday, 20 April 2018, 8:12 PM	Attempts: 842
	Unit 7- Report Writing	Friday, 6 April 2018, 10:35 AM	Attempts: 540
	Unit 4: Academic writing pre-test	Friday, 20 April 2018, 10:00 PM	Attempts: 702
	Unit 1-Pre Assessment Activity (Language Usage)	Friday, 23 February 2018, 12:45 PM	Attempts: 1085
	Unit 1 Tutorial (Language Usage)	Saturday, 24 February 2018, 12:30 PM	Attempts: 442
	Unit 1- Post Assessment Activity (Language usage)	Friday, 11 May 2018, 4:00 PM	Attempts: 1487
	Unit 3-Academic Reading PRT1	Wednesday, 28 February 2018, 12:00 PM	Attempts: 886
	Unit 5-PRT1-Text organisation	Saturday, 24 March 2018, 11:59 PM	Attempts: 996
	Unit 6-(Introduction to Research Writing)-Post Assessment Activity	Friday, 11 May 2018, 10:40 AM	Attempts: 1056
	Unit 4-Academic Writing Quiz/Post-test	Friday, 11 May 2018, 3:00 PM	Attempts: 1061

Figure 5.5 Sample EAP Quizzes tool

A large number of attempts on the quizzes concurs with what transpired during student group interviews, that the quiz tool was one of the most highly used tools. Another finding was that this tool had been in use for the whole semester, and a number of the course units had been covered, unlike in the EPR course where quizzes were, for example, only centred on one unit throughout the semester.

The study also involved scrutinising the content of policy documents to facilitate better understanding of the context as well as to corroborate findings from other data

sources: interviews, observations and document analysis of the Moodle online course content. The findings from the analysis of policy documents is discussed next.

5.4.4.2 Analysis of policy documents (Part B)

The analysis of policy documents widened to include the use of technology overall for teaching and learning, especially in the Namibian higher education sector. Both electronic and printed policy documents were reviewed and evaluated to identify themes and sub-themes that complemented the themes and sub-themes from the empirical data and analysis of the online course content. The documents that were analysed are tabularised in Table 5.6, below, in conjunction with the emergent themes and sub-themes from the analysis of individual and group interviews that were earlier presented in Tables 5.3 and 5.4 respectively.

Table 5.6 Analysis of the policy documents

Type of document	Corresponding themes/sub-themes	Corresponding extracts from policy documents
Namibian ICT Policy for Education 2005	Reasons for using technology/ Moodle	<ul style="list-style-type: none"> ➤ ICT policy aimed to prepare students and educators for the world economy of tomorrow (p. 1) ➤ ICT a tool for the development of the country (p. 2) ➤ ICT has potential benefits for the classroom and the educational process if used appropriately (p. 2) ➤ Connectivity to the World Wide Web facilitates interaction and mutual learning (p. 4) ➤ Technology facilitates more student interaction and collaboration among teachers and students (p. 11) ➤ All academic institutions and schools in the country encouraged to use ICT in education (p. 5)
	Tools in use	<ul style="list-style-type: none"> ➤ Email facilitates effective communication among learners, students and teachers (p. 10)
	Blended learning approach	<ul style="list-style-type: none"> ➤ ICT not to replace teachers but to complement traditional education (p. 4)
	Staff training opportunities	<ul style="list-style-type: none"> ➤ Competence of the educators to use ICTs to be developed through guided practice and investigation (p. 5) ➤ All staff to get training in using ICTs and apply them in their classrooms (p. 12)
	Access to facilities	<ul style="list-style-type: none"> ➤ Access to computer facilities to be ensured at all developmental levels (pp. 6-7) ➤ Teachers' access to facilities to be a priority before systems are installed for learners and students, for teachers to be confident to use the tools (p. 9)

		<ul style="list-style-type: none"> ➤ Access to own computers enhances teachers' competencies and confidence to use computers (p. 12)
	Change of existing beliefs/ mind set	<ul style="list-style-type: none"> ➤ Equipment failures result in low staff morale to use the tools and to reject technology (p. 12) ➤ Change in cultural and behavioural beliefs essential for ICT integration to be a success (p. 11)
NUST e-Learning Policy 2010	Reasons for using technology/ Moodle	<ul style="list-style-type: none"> ➤ NUST recognises the importance of integrating ICTs in teaching and learning (p. 2) ➤ E-learning to be used as a tool for teaching and learning (p. 2) ➤ E-learning to be used in all courses across the institution (p. 2) ➤ Moodle identified as a suitable tool to supplement face-to-face teaching (p. 2)
	Staff training opportunities	<ul style="list-style-type: none"> ➤ NUST committed to providing support and training to staff and students (p. 4) ➤ Centre for Teaching and Learning (CTL) to offer training and support for all courses on campus (p. 7) ➤ CTL to provide staff training in technical and pedagogical use of e-learning technologies (p. 9) ➤ CTL to ensure training of faculty on various e-learning technologies (p. 9) ➤ Further staff training to be provided at school and departmental levels (p. 9)
	Tools in use	<ul style="list-style-type: none"> ➤ CTL to encourage staff to understand the importance of using different e-learning technologies in teaching and learning (p. 9)
	Blended learning	<ul style="list-style-type: none"> ➤ As a flexible mode of teaching and learning at the institution (p. 2)
	Access to the LMS	<ul style="list-style-type: none"> ➤ The institution to ensure reliable access to technology to enable offering of courses on the LMS (p. 5) ➤ Bureau of Computer Services to ensure access to e-learning technologies for students and staff anywhere, anytime (p.8)
Overarching Information Communications Technology (ICT) Policy for the Republic of Namibia 2009	Successes	<ul style="list-style-type: none"> ➤ A lot has been done to develop the Namibian ICT sector, in line with global trends (p. 6)
	Access to facilities	<ul style="list-style-type: none"> ➤ Increased access to, and the use of Internet, of importance to make the country realise its 2030 vision (p. 21)
	Staff training	<ul style="list-style-type: none"> ➤ Funding for the development of ICT skills in education a governmental priority (p. 22)
The Language Policy for Schools in Namibia	Proficiency in the English language skills	<ul style="list-style-type: none"> ➤ Proficiency in English required in formal education for learners to be able to further their studies (p. 1) ➤ Mother language has a role to play in the acquisition of any L2, English included (p. 3)
	Challenges	<ul style="list-style-type: none"> ➤ Proficiency in all the language skills essential for the success of any teaching approach (p. 2)

2003		
Namibia's 5th National Development Plan (NDP5) 2017	Reasons for using technology/ Moodle	<ul style="list-style-type: none"> ➤ Integration of ICT in all sectors a key to transforming the country into a knowledge economy (p. 42) ➤ It is essential to align educational programmes to the needs of the labour market (p. 62)
	Staff training	<ul style="list-style-type: none"> ➤ Importance of addressing shortage of skills in the labour force (p. 2) ➤ Education and training essential to prepare for the 21st century jobs (p. 4) ➤ A need to invest in quality technical skills development (p. 9). ➤ Professional development of lecturers a national goal (p. 62)
	Challenges	<ul style="list-style-type: none"> ➤ Lack of technical skills a major challenge in the labour force (p. 4)
		<ul style="list-style-type: none"> ➤ Poor collaboration between the institutions of learning and the industry (p. 32) ➤ Lack of access to quality education and training opportunities (p. 53) ➤ Poor academic outcomes and outputs (p. 55) ➤ Quality and relevance of university education a major issue of concern (p. 61)
	Access to facilities	<ul style="list-style-type: none"> ➤ A need exists to upgrade ICT infrastructure at national level to improve access ➤ Limited infrastructure to provide quality education (p. 61)

The documents were analysed using a deductive approach to data analysis, exploring the applicable themes and sub-themes that emerged from the analysis of interviews, observations and online Moodle content data. A detailed outcome of the analysis is presented in the subsequent section, providing insights to the first research question: What procedures govern the use of Moodle as an e-learning tool to enhance ESL teaching and learning? Thus, the findings from the analysis of policy documents corroborated findings from the lecturers' and students' interview data.

A number of themes and sub-themes that could be aligned with the themes and sub-themes from the analysis of the empirical data emerged, as tabularised in Table 5.6 above. These themes and sub-themes are described next.

5.4.4.2.1 Emerging themes and sub-themes from the analysis of policy documents

The themes that emerged from the analysis of policy documents are: *The uses of technology/Moodle, Successes and Challenges*. Some of these themes featured outstandingly, whereas others were insignificant. These themes and their sub-themes are described below but not in any order of significance.

Theme 1: The uses of technology/Moodle

Unlike in the analysis of the empirical data where the focus was directly on Moodle, in the analysis of the policy documents the concept of Moodle was broadened to take into account the use of technology for teaching and learning at large. The three emergent sub-themes from this broader theme were reasons for using technology in teaching and learning, the tools in use to mediate learning, and the augmented learning approach. Each of these sub-themes is discussed below.

Sub-theme 1: Reasons for using technology in teaching and learning

In line with the findings from other data collection methods, the analysis of policy documents also made it evident how application of technology to teaching and learning was essential to prepare students for the 21st century labour market. Both the Namibian ICT Policy for Education (MoBESC 2005:1) and the NDP5 policy document (National Planning Commission 2017:42) indicate how it is essential to integrate technology into education in efforts to prepare students for the future world economy.

The NUST e-Learning Policy (PoN 2010:2) clearly stipulates how Moodle had been identified as a suitable tool to supplement face-to-face teaching, as well as how it was mandatory to use technology in all the courses that were offered at the institution under study. In a broader context, the Namibian ICT Policy for Education (MoBESC 2005:5) also emphasises the use of ICTs by academic institutions and schools nationwide, pointing to supportive national policies. Additionally, the policy (MoBESC 2005:2) highlights one of the key points interconnected with this study, that technology has potential benefits to the educational processes, on condition that it is used appropriately. Finally, the Namibian ICT Policy for Education (MoBESC 2005:11) also reiterates the key role that technology plays in the learning process, to facilitate interaction and collaboration among students and instructors. This makes it a

persuasive reason to use technology pedagogically, and it is in line with social-constructivism on which the current study is founded. Additionally, reinforcing interaction and collaboration in the learning process ties in well with the principles of a constructivist learning environment (see Figure 2.1).

Sub-theme 2: Tools in use to mediate learning

This subsection is very brief, because not much information was divulged in the policy documents regarding the use of specific tools for teaching and learning. The NUST e-Learning Policy (PoN 2010:3) lists some of the tools that should be incorporated and used on the LMS, such as PowerPoint, wikis, blogs, simulations, digital portfolios, and other emerging tools. Excluding PowerPoint, the interview data revealed how none of the tools listed above was really in use in the courses under study, besides the blog that was attempted once in EPR (see Figure 5.2).

This state of affairs does not concur well with the statement from the NUST e-Learning Policy (PoN 2010:9) that staff members were expected to acquaint themselves with different e-learning technologies available for on-campus teaching and learning. This situation illustrates how the institution under study still has a long way to go to reach its desired goals in terms of application of technology to teaching and learning. Overall, this concern supports what the lecturers shared during the interviews, that they still needed training to be able to use the tools available on the system effectively (see Section 5.4.1.2, Sub-theme 1).

Another finding from the Namibian ICT Policy for Education (MoBESC 2005:10) that the email facilitates effective communication among the learners, students and teachers is rational, but the students' interview data indicated that with the emergence of new technologies, students preferred to use newer technologies compared to the email that they found to be tedious to use (see Section 5.4.2.1, Sub-theme 2).

Sub-theme 3: The augmented or blended learning approaches

Not many documents that were analysed spoke to the augmented or blended learning approaches. The NUST e-Learning Policy (PoN 2010:2) acknowledges blended learning to be a flexible mode of teaching and learning at the research site. Also, in line with the lecturers' interview data findings (see Section 5.4.1.1, Sub-theme 3), the

Namibian ICT Policy for Education (MoBESC 2005:4) stresses how ICT is not to replace the instructors but rather to complement traditional face-to-face teaching and learning. The findings from the policy documents are testimony to the fact that the augmented learning approach has been recognised as an alternative pedagogical approach at the national level.

Theme 2: Successes regarding the use of technology

In line with the findings from the empirical data, only a few successes related to the use of technology were revealed by the analysis of policy documents. Only one sub-theme emerged from this broader theme, staff training opportunities, and is discussed next.

Sub-theme 1: Staff training opportunities

In agreement with the findings from the empirical data, the significance and need of staff training for educators to be able to use technology or the LMSs effectively featured prominently in four of the policy documents that were analysed. The NDP5 policy document (National Planning Commission 2017:62) stipulates how professional development of lecturers was a national goal. Similarly, at governmental level the ICT Policy for Education (MoBESC 2005:5) points out the necessity for guided practice and investigation to ensure competence of the educators to use ICTs at classroom level. Likewise, the NUST e-Learning Policy (PoN 2010:9) describes how the institution was committed to providing support and training to students and staff to ensure the use of various e-learning technologies at institutional, school and departmental levels. This explains why the HoD for the DoEL took a step to train staff to use the LMS by the time the study was in progress as was mentioned earlier in the interview data (see Section 5.4.1.1, Sub-theme 1). In short, all these documents confirm how efforts had been made to ensure effective application of technology to teaching and learning at different levels of education.

Regarding investment in the training of staff to use technology effectively, the NDP5 policy document (National Planning Commission 2017:9) stresses the need to invest in the development of technical skills, as illustrated in the quote *“A youth sector with technical skills is a pre-condition for becoming an industrialised nation”* (2017:9). The same line of thought is expressed in the Overarching ICT Policy for the Republic of

Namibia (Namibia Ministry of ICT 2009:22), whereby funding for the development of ICT skills has been identified as a governmental priority. These scenarios point to the fact that the government of the Republic of Namibia has recognised the need for skilled personnel in the use of ICTs in education and other sectors of the economy. This finding concurs with the views that were expressed by the lecturers and students respectively in Section 5.4.1.1, Sub-theme 1 and Section 5.4.2.1, Sub-theme 1, the fact that the world has changed, necessitating the change in pedagogical approaches. Using technology in education would thus equip students with the skills that are essential for the fourth industrial revolution. This scenario points to the need for educators to align the curricular to the needs of the job industry.

The Overarching ICT Policy for the Republic of Namibia (Namibia Ministry of ICT 2009:6) reveals another success, how the country has achieved a lot to develop the ICT sector, to bring it on par with global trends. Nevertheless, the fact that only one of the documents that were analysed recognises this success could be attributed to the fact that this document was published a while ago. Hence, there is no designated subsection for this success as a sub-theme.

Theme 3: Challenges

The analysis of policy documents revealed a number of challenges that could be barriers to the effective application of technology to teaching and learning. These challenges are discussed next in light of the relevant sub-themes that emerged from the analysis of the empirical data: *inadequate knowledge and skills*, *limited infrastructure*, and *access to facilities*. Another emergent sub-theme, *cultural beliefs*, that is closely linked to existing beliefs that emerged as a challenge in the lecturers' interview data (see Section 5.4.1.4, Sub-theme 3) and has a role to play in the use of technologies in education, is also discussed here.

Sub-theme 1: Inadequate knowledge and skills

Considering the national challenge of low proficiency in the English language that was mentioned in the first chapter of the thesis (see Section 1.2), the Language Policy for Schools in Namibia (MoBESC 2003:2) stresses how the success of any given teaching approach requires proficiency in the English language. This is a challenge that

concerns the learners, students and educators. The NDP5 policy document (National Planning Commission 2017:4) highlights another related challenge, lack of technical skills in the labour force. Although this document targets the labour force in general, both of these challenges surfaced in the interview data whereby students expressed difficulty in navigating the LMS due to language barriers, as well as the lecturers who revealed how they were not using the system effectively due to lack of technical skills.

Sub-theme 2: Limited infrastructure

Another challenge that the NDP5 policy document (National Planning Commission 2017:4) highlights is limited infrastructure that constrains the quality of education, which translates into effective use of ICTs in the context of this study. Again, the interview data revealed how inadequate computer facilities were sometimes observed to be a challenge to the effective use of Moodle at the research site (see Section 5.4.1.3: Sub-theme 1). Another related challenge that the NDP5 policy document (National Planning Commission 2017:53) brings forward is lack of access to quality education, that could be linked to another concern the same policy document reveals, poor academic outcomes and outputs. All these challenges are interrelated and have a role to play in the effective use of technology in education, as the students' interview data revealed how students with low proficiency in the English language struggle with the Moodle interface (see Section 5.4.2.3, Sub-theme 1). It is thus not a challenge that is atypical to the research site but rather a national challenge as Mungungu-Shipale (2016:3) reports.

Sub-theme 3: Access to facilities

Access to facilities is another theme that featured prominently in the policy documents. The NDP5 policy document, that is the latest edition compared to other documents that were analysed (National Planning Commission 2017:61), pronounces how there is still a need to upgrade the ICT infrastructure at the national level in order to improve access. This assertion complements the call for increased access to, and use of, the Internet that surfaces in the Overarching ICT Policy for the Republic of Namibia (Namibia Ministry of ICT 2009:21). The point under discussion could be characterised as a challenge, because poor access to computer facilities is a constraint to effective application of technology pedagogically. In support of this argument, the Namibian ICT

Policy for Education (MoBESC 2005:12) states how access to personal computers enhances teachers' skills and confidence to use computers.

Nonetheless, although a challenge at national level, access to facilities is not a serious challenge at the research site. Although computer facilities remain insufficient for the students, as was reported in the interview data, the NUST e-Learning Policy reveals the mechanisms the institution has in place to ensure access to facilities. The institution ensures access to facilities to enable staff and students to offer courses on the LMS (PoN 2010:5), while the Bureau of Computer Services (BCS) at the institution ensures access to e-learning technologies anytime and anywhere (PoN 2010:8). Thus, none of the lecturers who participated in the study reported access to facilities to be a challenge.

Sub-theme 4: Cultural beliefs

Cultural beliefs that are closely linked to existing beliefs that play a role in the use of technology in the teaching and learning processes also emerged as a sub-theme under challenges. The Namibian ICT Policy for Education (MoBESC 2005:11) highlights how successful integration of ICTs in education entails a change in cultural and behavioural beliefs, a finding that is congruent with lecturers' interview data (Section 5.4.1.4, Sub-theme 3). Likewise, this policy document (MoBESC, 2005:12) clarifies how constant equipment failures might affect the morale of the instructors to use the technological tools or even make them reject technology. Failure of equipment was another concern that emerged from the lecturers' interview data.

5.5 DISCUSSION

The study entailed an investigation of how Moodle and its mediating tools were used by the lecturers and students at the research site to enhance ELTL. The key findings of the present study are recapitulated in this section, whereby discrepancies and similarities between the present study and the existing literature are highlighted in terms of the themes and sub-themes that emanated from the research. The findings were grouped in three categories: the uses of Moodle and its mediating tools at the research site, potential strengths regarding the uses of Moodle, and the challenges constraining the use of Moodle in ELTL. The findings that emerged from the last theme

- suggestions for improved practice - are discussed later in Section 6.4.5 that sums up the guidelines for improved practice.

5.5.1 The uses of Moodle and its mediating tools

Regarding the use of Moodle by the lecturer participants (see Section 5.4.1.1), the data revealed how the lecturers felt compelled to use Moodle as it was an institutional policy and it was mandatory for them to use Moodle for teaching and learning. Unlike the lecturers, the students' data revealed how they used Moodle as they found it motivating (see Section 5.4.2.1), a finding that concurs with existing literature in the field (see Section 3.7). Also, the student participants expressed how online learning was preferable compared to paper work, and they felt that Moodle prepared them better for the 21st job market. This finding ties in with the work of Jose (2015:27) and Toland et al (2014:229) who found Moodle activities relevant as they prepare students for work in the digital era. However, the lecturers have also noticed the need to prepare students for the digital era as they expressed how they would still consider using Moodle if it was not mandatory, as the way students learn has changed (see Section 5.4.1.1, Sub-theme 1). Other motivating factors for students to use Moodle for ELTL were the short exercises that allowed them to do more activities within a short time and the instant feedback that Moodle provides (see Section 5.4.2.1, Sub-theme 1).

It was also revealed by the lecturers' interview data how using Moodle had made it easy for them to guide students anytime, anywhere, even beyond the working hours (see Section 5.4.1.1, Sub-theme 2), and the student participants shared the same sentiment, being able to use Moodle anytime, anywhere (see Section 5.4.2.1, Sub-theme 1). The need to provide guidance in the learning process leads to the concept of human touch that is essential to facilitate explanation of challenging concepts in a face-to-face environment, making the blended learning approach essential. Likewise, Suppasetserree and Dennis (2010:44) emphasise the need for emotional support in the process of integrating Moodle. Drawing on learning theory, this is how the concept of ZPD comes into play in social constructivism, whereby the lecturers and other students who know better support students who are less knowledgeable to reach the ZPD (see Section 2.3.2).

The findings of the study revealed how there were some Moodle tools that lecturers and students at the research site used to supplement face-to-face teaching. The tools that were found to have been mostly used in the three courses were the basic ones: the calendar and the e-mail.

Some of the tools were used satisfactorily, such as the **online course resources** that had been uploaded in the three courses under study (see Table 5.5, and the pre- and post-assessment quizzes that the students liked as they facilitated reflection (see Section 5.4.2.2, Section 1). The EAP quizzes tool was exemplary, with a lot of quizzes to enable students to do more practice (see Figure 5.5). Both the students and the lecturers found the online pre- and post- assessment quizzes useful to enhance the students' English language skills (see Section 5.4.2.2, Sub-theme 1), a finding that ties in with the work of Suppasetserree and Dennis (2010:38). This is also one tool that caters for the cognitive aspect of language learning, because the quizzes entail engagement of the students in mental processing of facts, a matter that is not the focus of this study.

Triangulation of the data revealed how **video lessons** were used effectively by some of the lecturers in all three courses that were observed, even though only one video lesson was observed in the fundamental course, PLU (see Section 5.4.3, Sub-theme 1). This finding concurs with the interview data that revealed how videos were found to be advantageous when students needed extra guidance, for better comprehension of the lesson content (see Section 5.4.2.2, Sub-theme 2). In line with constructivism theory of learning, videos can be interpreted as playing the role of scaffolding, thus assisting the students to reach the ZPD.

However, the use of video lessons was found to be minimal in the fundamental and intermediate English language courses, a situation that resulted in students appealing for more video lessons (see Section 5.4.2.4, Sub-theme 3). Considering the fact that this was the elementary English language course in the department where students needed more guidance, it was sensible for students to ask for video lessons as this is where a variety of scaffolding strategies are mostly needed. This line of thought is harmonious with Alhothli (2015:51), where students with low proficiency in the English language appealed for more video lessons (see Section 3.7.1), thus putting them on par with the PLU students in this study. This shows how video lessons could be of

great benefit to students with low proficiency in the English language, demonstrating how technology plays a role in guiding the students in their learning process in order to reach the ZPD as per social constructivist thinking (see Section 2.3.2).

On the negative side, the study revealed how some of the tools were minimally used, especially the **Moodle communication tools**, as discussed later in Section 5.5.3, although these tools had been used effectively. Triangulation of the data collection methods made the use of tools transparent during the analysis of the Moodle online content. The online data revealed how a blog lesson was tried only once in the intermediate English language course, EPR, but it was a good task (see Figure 5.2). Discussion forum was tried twice in the advanced English language course, EAP, and it was also a good example that other lecturers are encouraged to emulate (see Section 5.4.1.2, Sub-theme 2). These efforts are commendable, because the tasks that had been created were relevant and engaged students in collaborative construction of knowledge in which students generated ideas to solve real life matters, thus supporting social constructivist views (see Section 2.4.4).

The successes that emerged from the findings of the research are presented next.

5.5.2 Potential strengths regarding the use of Moodle in English Language Teaching and Learning

Both lecturers' and students' data did not reveal tangible successes. Considering that the present study was conducted in a developing country, it is realistic to argue that a milestone has been reached regarding integrating Moodle into the English language courses, although the lecturers still need to advance the use of the LMS in the department. Two areas worth categorising as successes are **staff training opportunities** and **exemplary use of authentic learning activities** in the online learning approach (see Section 5.4.1.2).

Although there were staff training opportunities in place to equip staff with essential knowledge and skills to use Moodle (see Section 1.2), which is good progress, the training approaches did not seem to have a positive impact on their abilities to deliver the online component of the English language courses. The difficulties the lecturers experienced in setting relevant online assessment tasks that test both writing and

grammar or specialised writing skills, (see [Section 5.4.1.3, Sub-theme 3](#)) point to the need for more training on how to create online assessment activities for various English language skills.

The EAP authentic learning tasks that emerged from student interviews and the analysis of Moodle online content (see [Figure 5.4](#) and [Section 5.4.1.2](#)) provide evidence of exemplary use of Moodle for ELTL. The tasks also tied in well with the blended learning approach (see [Section 3.3.1](#)) as they involved both face-to-face and online learning components. The authentic learning activities were also observed in face-to-face classrooms (see [Section 5.4.3, Sub-theme 3](#)) where the tasks students engaged in were related to real life. The EAP students applied new knowledge and skills to real life situations using Moodle when they generated ideas on how to solve real-life contextual problems through a discussion forum. These tasks demonstrated how learning is situated in the context (see [Section 2.4.4](#)). Also, the tasks illustrated how learning is interactive, and it was the Moodle platform that facilitated co-creation of knowledge to solve problems as per social-constructivist thinking (see [Section 2.4.3](#)).

Additionally, Li (2013:219) explains how authentic learning facilitates high level thinking skills. In light of L2 teaching and learning, Karabulut (2013:17) states how getting engaged in authentic learning contributes to successful language learning. The findings that are presented here illustrate how authentic learning is one of the key instructional strategies that L2 instructors need to reinforce in contemporary education as opposed to drill and practice exercises. Drill and practice exercises are more aligned to the behaviourist theory of learning (see [Section 2.3.1](#)) that does not concur well with contemporary education whereby students are required to apply new knowledge and skills to solve real-life issues when they join the job market. The trial blog lesson in the intermediate course, EPR, in which students created and presented their own blogs was one of such exemplary activities (see [Figure 5.2](#)). Triangulation of the data collection methods enabled the researcher to learn more on the blog activity which also surfaced in the analysis of Moodle online content (see [Section 5.4.4.1](#)). It is regrettable that this activity occurred only once in one of the three courses under study. Staff at the research site need to be encouraged to design similar activities.

Besides the successes, there were many challenges that the present study revealed.

5.5.3 Challenges constraining the use of Moodle in English Language Teaching and Learning

The analysis of both lecturers' and students' data revealed more challenges than successes. The lecturers' data revealed challenges of *poor attendance at the laboratory sessions*, *minimal use of the Moodle tools due to inadequate knowledge and skills*, challenges regarding *managing the online assessment tasks*, and *technical challenges*. Similarly, minimal use of the Moodle tools, online assessments where students showed discontent with electronic feedback and other technical difficulties featured among the challenges from students' perspectives.

5.5.3.1 Lack of interest to attend laboratory sessions

Although the present study revealed how students were keen to use Moodle as they believed it prepares them for the job industry, the unwillingness to attend the laboratory sessions reflects a lack of interest in attending the lessons presented on Moodle. Either the students did not put much value on online learning because they were unused to technology, or perhaps they did not see the need to attend the laboratory sessions if they were able to access the online content anytime, anywhere. This situation prompted the lecturers to go to the extent of inviting students to attend classes.

The reluctance of students to attend classes could be a warning sign to the educators to reconsider and adjust the curricula to the needs of the net generation, especially in the context of higher education. It is worth noting that the researcher also observed poor attendance in the face-to-face classes (see Section 5.4.3, Theme 1, Sub-theme 2), implying that the problem was not only prevalent in the laboratory sessions. Lack of motivation to use Moodle also featured in Suppasetserree and Dennis's (2010:39) study when 46.5 percent of the student participants only used Moodle because it was a course requirement, meaning there was no enthusiasm to use the system.

5.5.3.2 Inadequate knowledge and skills

The inability of the lecturers to use Moodle effectively due to inadequate knowledge and skills was a concern in the present study (see [Section 5.4.1.3](#)). A similar deficiency

is reported in the work of Dube and Scott (2016:180), Suppasetseeree and Dennis (2010:43) and Tshabalala et al (2014:107). The inability of the lecturers to use the embedded Moodle communication tools effectively does not concur with the social-constructivism theory of learning where collaboration and interaction are crucial elements of the learning process. The minimal use of the discussion forum features widely in both the students' interview data (see Section 5.4.2.3, Sub-theme 3) and the analysis of the Moodle online content (see Section 5.4.4.1). This state of affairs hints at the undeniable but regrettable reality that the use of the LMS for English language teaching and learning remains a challenge for some of the lecturers at the research site. The fact that the staff members were not confident to use the discussion forum due to poor knowledge and skills points to the need for more staff training opportunities.

Ironically though, the literature review reveals how the unsatisfactory use of the LMSs has also been reported in developed nations where one would expect the situation to be different. A study that was conducted on the use of an LMS at a certain Swedish university concluded that even though the staff were positive about the use of the system, actual usage was found to be sub-standard (see Section 3.4.3). In Japan the LMS that was in use at the institution that was studied was found to be problematic, and the staff expressed unhappiness with the training mechanisms that were in place to use the system (see Section 3.4.2). It can be concluded from these illustrations that using Moodle for teaching and learning is a sophisticated process. Thouëсны and Bradley (2011:3) share the same thought, that incorporating technology into teaching and learning is challenging.

The need for skills to use the LMS effectively points to the necessity for more training opportunities. Staff training emerged as a challenge from lecturers' interviews, the analysis of the online platform of the three courses under study, as well as the analysis of policy documents, revealing the gravity of the matter. What is laudable though is that the staff at the research site had the desire to use Moodle for ELTL and thus appealed for more training. The demand by staff to be provided with more training opportunities is in itself a signal of the staff's positive stance regarding the use of the LMS for ELTL.

Although the current research was not a full-scale study on the use of LMSs in developed and developing countries, what the study revealed could just be the tip of the iceberg. More studies on the subject at hand might yield a more detailed picture of the situation that is fluid at the moment.

5.5.3.3 Online assessment tasks

Online assessment is another area of concern that emerged from the findings of the present research (see Section 5.4.1.3, Theme 3, Sub-theme 3). It appears that the lecturers' level of use of Moodle was insufficient to enable them create different types of assessments that would enable them to test certain competencies. It is creditable to note that the lecturer participants were aware of their situation. Nonetheless, managing online learning assessment tasks with inadequate knowledge and skills could be a challenge, referring us back to the key issue of staff training that is essential at the research site.

Also, the lecturers were aware of the limiting nature of the Moodle multiple choice assessment task due to their objective nature, which is commendable. The lecturers were aware that although objective testing has the advantage of being marked easily by the computer, it might not be relevant to students at tertiary level as it does not take into account their imagination. This points to the need to create online assessment tasks that make provision for high level thinking skills.

5.5.3.4 Access and other technical challenges

Besides the technical challenges that students experienced regarding accessing Moodle through an app (see Section 5.4.2.3, Sub-theme 1) and not using the Moodle interface effectively due to language barriers (see Section 5.4.2.3, Sub-theme 5), the observation data did not reveal other technical challenges that were worth reporting. A few other challenges were reported, such as the server that at times went down and the weak Wi-Fi that made the Internet unreliable (see Section 5.4.2.3, Sub-theme 5).

Overall, technical challenges should not be overlooked as they have an impact on the effective use of an LMS for teaching and learning, irrespective of the subject matter. In a context where application of technology to teaching and learning is a novelty,

constant failure of technological tools might discourage staff from using technology in their classrooms as they might develop negative perceptions of these technologies. However, in the context of the current study it is the language barriers that need to be addressed also, because it was due to the language barriers that the students were unable to make effective use of the system. This shortcoming also manifested during classroom observation when students altered between vernaculars and English during group work (see Section 5.4.3, Theme 2, Sub-theme 2), excluding others from the discussions in the process. It could be due to the language barriers that students used their vernaculars when interacting with one another in both face-to-face and Moodle activities. It is a situation that becomes a constraint to the improvement of English language skills.

The students' interview data also revealed how the students found it a challenge to access learning tasks on Moodle due to the content on the platform that they found to be disorganised (see Section 5.4.2.3, Sub-theme 2). With inadequate knowledge and skills to use Moodle, it is likely that it could be a challenge for the lecturers to manage the course content on the Moodle platform.

5.6 CHAPTER SUMMARY

This chapter presented the findings of the study, using mainly the inductive approach for the analysis of the empirical data, as well as a deductive approach for the analysis of policy documents, using predetermined themes that emerged from the analysis of interviews and observations. The analysis of documents was broken into two sections: one for the analysis of the Moodle online content of the three courses under study, and another section for the policy documents. The study made use of the existing institutional LMS, Moodle, which was being used by the participants in the study during the study period. The data were broken down into manageable pieces during the coding process to facilitate emergence of themes and sub-themes. A narrative account of what transpired was presented in the discussion section in consideration of the research objectives and questions. The research findings are compared and contrasted with corresponding findings from the research literature.

The next chapter presents a summary of the review of the literature and the empirical study. The research conclusions are then synthesised, and guidelines for the effective

use of Moodle are provided, emanating from the findings of the study. Finally, the chapter presents the limitations of the study and ends with conclusions and recommendations for further research, based on the outcomes of the current study.

CHAPTER 6: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The findings of the study are presented in this chapter by summarising the review of literature and the empirical study, with reference to the research questions and the objectives of the research. Firstly, the chapter presents a summary of the literature review and then the empirical study. Thereafter, the findings of the study are synthesised by highlighting similarities and contradictions in light of previous studies. Furthermore, guidelines for the effective use of Moodle in ESL teaching and learning are proposed, arising from the findings of the present study. The proposed guidelines are further expanded to explain how Moodle could be used to enhance ELTL at the research site, and this explanation is also illustrated in diagrammatic form.

The limitations of the study are also discussed, whereby potential problems that stem from the research are highlighted. Drawing on the results of the study, recommendations are made to the Department of Education and Languages at the institution under study, the institution at large, and then to the key stakeholders in the the Namibian higher education system. Finally, recommendations for future research are given, and then the chapter concludes by restating the key findings of the study.

6.2 SUMMARY OF THE LITERATURE REVIEW

The literature review for this study was divided into two chapters: Chapter 2 that presented the theoretical framework, and Chapter 3 that discussed the conceptual framework on which the study was founded.

Chapter 2 commenced by presenting an overview of the learning theories on which the present study was founded. Firstly, there was an overview of the link between technology and the SLA theory that gave insight into the processes the learners undergo to acquire L2 (see Section 2.2). As part of SLA theory, a summary of Krashen's (2013:1-5) five hypotheses on how L2 is acquired was presented, including debates surrounding the comprehensible input hypothesis that has led to Merrill Swain's comprehensible output hypothesis. The key debate surrounding these hypotheses originated from the work of Swain, the fact that it is inadequate for the students to simply be provided with comprehensible input as they also need to produce

the language (comprehensible output), (see Section 2.2.3) to demonstrate that they have acquired the new language forms by using them effectively (Van Patten & Benati 2010:119). The criticisms levelled against these hypotheses were also briefly discussed. In alignment with the use of technology for ELTL, there are a variety of tools that afford opportunities for both comprehensible input and output in the process of L2 teaching and learning (see Section 2.2). Regrettably though, instructors do not always make optimal use of these tools to enhance students' English language skills.

After the deliberations on technology and L2 acquisition the focus shifted towards an overview of learning theories and the role they have played in the development of more contemporary learning theories (see Section 2.3). Constructivism theory on which the present study was founded was discussed at length, including social constructivism.

Constructivism was singled out as a fitting theory for this study as it portrays both cognitive and affective dimensions of learning (see Section 2.3.2), but then it was the affective dimension that was found to be more suitable for the present study, thus social-constructivism. Also, Van den Berg (2017:81) mentions how constructivism is about construction of knowledge by the students, making it a fitting theory for this study. This enables the students to use both comprehensible input and output skills in the process of L2 production.

Another key tenet of constructivism, especially Vygotsky's socio-constructivism, is the key role of guiding and advising students in their learning process, whereby the students learn through interaction with others who are more knowledgeable, the peers or instructors, so that the students reach the ZPD (see Section 2.4). Technology affords an avenue for this type of learning, for example by using the Moodle communication tools, the forums and other online writing tools, both synchronous and asynchronous. For example, the forums open an avenue for the less knowledgeable students to learn from the more knowledgeable ones through collaborative learning, thus enabling the less knowledgeable students to reach the ZPD (see Section 2.4.5).

As learning should be understood as a social process in social-constructivist thinking, rather than an end-product, the emphasis should be on the process of learning, necessitating the instructors to create a conducive learning environment founded on constructivist thinking (see Section 2.4). Li (2013:218) mentions some of the essential

elements of a constructivist learning environment of which some are part of Figure 2.1 that displays an overview of a constructivist learning environment that takes into account both cognitive and social dimensions of learning. Moodle communication tools, such as the forums and chat, have potential to cater for these dimensions of learning, to enable students to reach the ZPD.

Chapter 2 informed the design of Chapter 3 that presented the conceptual framework on which the present study was founded, based on the research questions and objectives of the study. The chapter began with a discussion on how the use of ICTs enhances ELTL in the higher education context, drawing on findings from other studies (see Section 3.2). Then, the discussion shifted specifically to the role the LMSs play in ELTL (see Section 3.3), leading to deliberations on how specific Moodle tools can be used to enhance ELTL, as illustrated in Table 3.1. A word of caution was given to educators through the literature review that availability of abundant tools for language teaching and learning is not equated to their effective use at classroom level due to a variety of stumbling blocks in the teaching and learning processes (Mtebe 2015:53; Ekman et al 2015:904).

The use of Moodle in a blended learning approach also featured in Chapter 3, where the significance of human touch was highlighted, to provide face-to-face guidance, and also to cater for the affective dimension of teaching and learning (see Section 3.3.1). The discussions on the blended learning approach revealed how this teaching and learning approach had been under-researched in the domain of the English language compared to other domains of learning (Tselios et al 2011:225). Some studies reveal how the Moodle platforms have been underutilised in ELTL, consequently recommending training of the instructors to be able to use the hybrid approach effectively (Penãfiel et al 2016:102).

Next, discussions on the use of LMSs in selected developed and developing countries ensued, whereby the uses of the systems were analysed in three developed countries: Portugal, Japan and Sweden (see Section 3.4), as well as three developing countries: Zimbabwe, SA and Namibia (see Section 3.5). These sections provided more insights into the first research question that dealt with procedures governing the use of Moodle to enhance ESL teaching and learning, in addition to the insights that were drawn from

the interviews and the analysis of policy documents. A synopsis of the use of LMSs in ELTL in both developed and developing countries was presented in Table 3.2.

Furthermore, Chapter 3 presented the perceptions of students on the use of Moodle for ELT (see Section 3.7), an area that some researchers feel is under researched (Carvalho et al 2011:825; Muñoz-Repiso et al 2012:903). The students in diverse contexts had mixed feelings regarding the use of Moodle for ELTL. Some liked the experience, but they found it to be an “unconventional way of learning” when compared with face-to-face teaching that they were accustomed to (Alhothli 2015:60). The LMSs were also found beneficial in terms of the development of specific language skills, such as reading and vocabulary, listening and speaking as well as collaborative writing activities and multimedia files, such as videos and PowerPoint presentations (see Section 3.7). Some of these findings were on par with the findings of the present study (see Section 5.4.2.2: Sub-theme 2).

The student participants in various studies have provided recommendations for successful blended or augmented learning in ESL (see Section 3.7.1) of which some are in congruence with the findings of the present study (see Section 5.4.1.3, Sub-theme 1 and Section 5.4.2.2, Sub-theme 2). Also, students appealed for solutions to technical challenges, a matter the present study supports (Section 5.4.2.3), including increasing the number of computers in the laboratories (Al Zumor et al 2013:102). The balance between previous studies and the present one mirrors the gravity of the matter, establishing how there is a need to alleviate this state of affairs.

Finally, the chapter ended with an overview of the challenges and barriers arising from the use of ICTs in general and the LMSs in particular, in light of ELTL, from the perspectives of both students and instructors (see Section 3.8). A conclusion can be drawn from this section that even though ICTs have the potential to enhance ELTL, actual usage of ICT tools remains undesirable in a variety of educational contexts due to various challenges that students and lecturers or institutions at large experience in the process of integrating ICTs in education. This finding is supported by literature in the field (Ekman et al 2015:904; Karabulut 2013:168; Khan et al 2012:62; Mtebe 2015:53; Viatonu & Kayode 2012:3). Limited knowledge and skills to use technology tops the list of the challenges, others being technical challenges and lack of interest in using technology due to narrow pedagogical beliefs (see Section 3.8).

A summary of the empirical study is described below.

6.3 OVERVIEW OF THE EMPIRICAL STUDY

The empirical study aimed to provide insights into the use of Moodle by lecturers and students involved in the three English language courses under study to enhance ELTL. As the nature of the problem to be studied defines the research approach, I found a case study qualitative approach suitable to investigate the problem under study, as opposed to a quantitative approach (see Section 4.3.2 and Section 4.3.3). The research procedures and methods entailed the sampling strategy (see Table 4.1), data collection methods that entailed observation (see Section 4.4.3.1), individual and focus group interviews (see Section 4.4.3.2), and document analysis of the Moodle online content and policy documents (see Section 4.4.3.3). Data collection was followed by data analysis (see Section 4.4.4) that was done concurrently with data collection. Trustworthiness criteria (see Section 4.5) were adhered to in the process of collecting and analysing the data.

Four key themes emerged from the analysis of lecturers' and students' interview data: *the uses of Moodle, potential strengths or successes, challenges and suggestions for successful usage* of Moodle (see Table 5.3 and Table 5.4). An overview of these emergent themes is presented next.

One of the themes that emanated from the research, *the uses of Moodle* (see Section 5.4.1.1), revealed how the lecturer participants were using Moodle for English language teaching and learning due to institutional requirements as it was mandatory for them to use the LMS. Four of them considered themselves as beginners as they had only started using Moodle extensively compared to how they had been using it in the past, although the system had been in use at the institution for a long period (see Section 5.4.1.1, Sub-theme 1). This was due to the effort of the new HoD by then who reinforced the use of the system to supplement face-to-face teaching.

An in-depth analysis of the lecturers' interviews showed how their existing beliefs had a key role to play in the adoption of technologies in education (see Section 5.4.1.4, Sub-theme 3). The lecturers indicated how it was not merely staff training that counted but also a change in the existing beliefs that was essential for the use of technologies in education to become effective. This finding is not atypical to the institution under

study. Viatonu and Kayode (2012:3) indicate how lack of interest to integrate technology into teaching and learning was still a challenge in developing countries.

A few successes could also be attributed to the situation under study (see Table 5.5). In the final analysis of the use of Moodle in the three English language courses at the research site, PLU, EPR and EAP, a conclusion could be drawn that although the use of the Moodle tools was found to be minimal in the fundamental English courses, PLU and EPR (see Section 5.4.1.3, Sub-theme 2), it had intensified in the upper English language course, EAP, where participation in chat sessions and quizzes was high, and a great number of resources had been uploaded to enhance the learning experience (see Table 5.5). For instance, the students found the chat forum in Moodle a convenient way of interacting and co-creating knowledge with other students and the lecturers (see Section 5.4.2.1, Sub-theme 2). The ability of Moodle to facilitate co-creation of knowledge concurs with the notion of the role interaction with the environment and the tools play in the learning process in social constructivist thinking (see Section 2.4.3). Drawing on findings from the literature review, Motteram (2013:23) expands this thought, explaining how the chat and email tools also facilitate comprehensible output in the process of L2 learning (see Section 2.2.3).

The lecturer participants signalled how they were familiar with a variety of Moodle features, but they were not competent enough to use them (see Section 5.4.1.3, Sub-theme 2). This was despite the training they had received to use the system, which had been provided at institutional level (see Section 5.4.1.2, Sub-theme 1). Besides two of the lecturers who considered themselves as intermediate users of the system, based on the fact that they had been able to use some of the Moodle tools in their subject courses satisfactorily, other lecturer participants appealed for more training opportunities to enable them to become competent users of the system (see Section 5.4.1.4, Sub-theme 2).

The lecturers were aware of their situation, therefore they appealed for more training, especially pertaining to the use of Moodle communication tools, such as the discussion and chat forums, as well as the blogs (see Section 5.4.1.4, Sub-theme 2). These are the tools that play a key role in terms of enhancing students' communicative skills in the English language due to their potential to provide opportunities for language input

and output, in accordance with the SLA theory (see Section 2.2.2 and Section 2.2.3). Yet, these are the tools that are underutilised due to limited expertise to use them.

The students' interview data also revealed how the students were of the opinion that the lecturers needed more training to be able to use the tools that were underused or not in use (see Section 5.4.2.3). This finding corroborates findings from other studies in the field, whereby inadequate knowledge and skills to use the LMSs had been found to be constraints to the effective use of the LMSs (Dube & Scott 2016:180; Nenge et al 2012:119; Tshabalala et al 2014:105; Suppasetserree & Dennis 2010:43). The appeal by students for the lecturers to use many of the Moodle tools that were not being used effectively is evidence that these tools have the potential to enhance their language skills.

The minimal use of the forums by the lecturers in the present study contradicts findings from other studies. Perhaps the context plays a role in this scenario. The student participants in Ziad's (2016:321) study revealed how the forums impacted their learning positively. Ziad's (2016:318) study was conducted in Egypt which, although a developing African country, has a fast growing economy compared to Namibia. Also, even though Thailand (where Suppasetserree and Dennis's (2010:37) study was conducted) is also a developing country, it cannot be equated with Namibia in terms of the economic growth. Also, a case study analysis of the use of LMSs in Sweden, which is comparatively more developed, revealed widespread use of the LMS tools, whereby staff were able to use all the tools successfully (see Section 3.4.3). This makes it realistic to argue that the context has a role to play in the effective or ineffective use of technologies for teaching and learning as per the theory of constructivism.

In a nutshell, efforts had been made to make the integration of technology into ELTL a reality at the research site. All three courses that were studied used standard Moodle tools during the study period, but the way the tools were used in each course fluctuated significantly.

Based on the research questions, the discussion below presents the research conclusions and their implications for educational practice.

6.4 RESEARCH CONCLUSIONS

The research problem that was described earlier in Section 1.3 resulted in the main research question and sub-research questions that guided the enquiry (see Section 1.4) as outlined below. The findings of the study enabled me to arrive at the following research conclusions.

The main research question was: ***How do lecturers and students involved in English language service courses use Moodle as an e-learning tool to enhance ESL teaching and learning?***

The research sub-questions that guided the enquiry, based on this key research question, were:

1. What procedures govern the use of Moodle as an e-learning tool to enhance ESL teaching and learning?
2. How do lecturers and students involved in English language service courses use Moodle features to enhance ESL teaching and learning?
3. What successes do the lecturers and students involved in English language service courses experience in the process of using Moodle to enhance ESL teaching and learning?
4. What challenges do the lecturers and students involved in English language service courses experience in the process of using Moodle to enhance ESL teaching and learning?
5. What guidelines can be used for the effective use of Moodle to enhance ESL teaching and learning at tertiary level in a developing context?

The conclusions for Questions 1 to 4 are presented first, and then these research conclusions were used to frame the answers to the main research question that ensues.

6.4.1 What procedures govern the use of Moodle as an e-learning tool to enhance ESL teaching and learning?

Both the individual lecturers' interviews and the analysis of policy documents provided answers to this research question. The lecturers' interview data (see [Section 5.4.1.1](#),

Sub-theme 1) and the institutional e-Learning Policy (PoN 2010) (see Section 5.4.4.2) revealed how the use of Moodle was mandatory at the research site. Consequently, the institutional procedures made the lecturers use Moodle for ELTL.

The analysis of national policy documents revealed how many of the policy documents that were analysed put greater emphasis on the use of technology in formal and vocational education and training as opposed to institutions of higher learning (see Table 5.6). It was only the NUST e-Learning Policy (PoN 2010) and the NDP5 (National Planning Commission 2017) policy documents that revealed substantial information regarding the use of ICTs in institutions of higher learning (see Table 5.6). The ICT Policy for Education (MoBESC 2005:18) stipulates clearly how the policy had been implemented for the formal education sector and teacher education since the higher education sector was expected to develop and implement its own policies. In brief, the present study revealed how there was a need for a national ICT policy that encourages the use of ICT in the higher education sector as well.

Likewise, the case study analysis of examples of the use of LMSs in other educational settings in both developed and developing countries revealed how there was a lack of support and ICT policies to encourage the use of the LMSs in some educational settings (see Table 3.2), a situation that demoralises staff to use the LMSs. The matter under discussion reveals how the use of the LMSs is not only a challenge in the developing countries but also in the developed countries. However the gravity of the matter is not the same in developing and developed countries as the usage of LMSs in ELT was found to be exemplary in some developed countries, for example Portugal (see Section 3.4.1). There was widespread usage of the LMSs at all levels of education in Portugal, not only at the institutions of higher learning. An overview of the use of the LMSs in selected developed and developing countries was presented in Table 3.2, but it should be noted that the cases illustrated were used as examples; they do not present a complete picture of the usage of LMSs in those countries.

6.4.2 How do lecturers and students involved in English language service courses use Moodle features to enhance ESL teaching and learning?

The findings of the study indicated how, irrespective of inadequate knowledge and skills, some of the Moodle tools were used by the lecturers and students in the DoEL.

The tool that emerged to be mostly in use by the lecturers was the **resources tool** (see Table 5.5).

Also, the student participants were mostly in favour of the **online quizzes**, especially the **pre- and post-assessment quizzes**, and the **video lessons**. They mentioned how they favoured video lessons as they learnt better by not only listening to the speaker but also seeing what was being presented (see Section 5.4.2.2), indicating the significance of using visual aids to guide students in the teaching and learning processes. The discussion forum was rarely used due to limited knowledge and skills to use it (see Section 3.3). Minimal usage of the discussion forum does not concur well with the SLA theory, whereby negotiation of meaning has been found to be a contributing factor to the development of language skills (see Section 2.2.4).

6.4.3 What successes do the lecturers and students involved in English language service courses experience in the process of using Moodle to enhance ESL teaching and learning?

The study did not reveal tangible data regarding the successful use of Moodle for ELTL at the research site. This situation mirrors how the DoEL is still in its infancy in using Moodle for ELTL, but there is optimism for improved practice as exemplary teaching practice involving Moodle tools was found to be emerging. The empirical data revealed a few examples pointing to the successful use of Moodle to enhance ELTL, compared to the numerous challenges that were discovered. The good areas of practice worth reporting were found to be **the use of Moodle to facilitate authentic learning**, and **efforts made to try using a few Moodle tools** irrespective of the lecturers' limited knowledge and skills. It is not worth adding staff training to successes, because regardless of the training opportunities that were in place at institutional level, the impact of training had not yet materialised at grassroots level.

The present study revealed how Moodle facilitated authentic learning experience which is an essential element of social constructivism theory. The study showed how learning through Moodle enabled the students in the advanced English language course, EAP, to generate ideas on how to solve real-life problems. Although it was a trial and error task, the discussion forum that was used as a mediating tool for learning afforded an opportunity for the students to generate ideas on how to solve real national

problems. It was the technology, Moodle specifically, that facilitated interaction and co-creation of knowledge in the process of learning the English language. This line of thought ties in well with one of the key tenets of social constructivism, whereby learning is viewed as active construction of knowledge rather than being simply transmitted.

The efforts made by the lecturers and students to use some of the Moodle tools is commendable. The student participants indicated how they believed that a variety of their English language skills had been enhanced. It was on this basis that the students expressed the need for the lecturers to use more of the Moodle tools that were not used sufficiently, such as the communication tools. Some of the useful tools worth mentioning are the embedded video lessons, the resources tool that was packed in the intermediate and advanced level courses and the pre- and post-assessment quizzes. Video lessons could be more beneficial to students with low proficiency in English, which explains why it was the students who were doing the fundamental English language course who appealed for more video lessons.

The study also revealed how providing feedback and guidance are essential components of students' learning experience. The theme of *human touch* featured in the lecturers' interview data in different ways, revealing how it was of significance to provide guidance to students to enable them to reach the ZPD as per social constructivist thinking.

Considering how the use of Moodle was not yet advanced in the three English language courses that were investigated, the use of Turnitin as a plagiarism software in the advanced English language course, EAP, was another good practice of using Moodle applications. The electronic study guides that had been embedded in Moodle as unit lessons were another initiative worth commending. However, the lecturer participants revealed how these e-guides were not being used optimally by the students.

6.4.4 What challenges do the lecturers and students involved in English language service courses experience in the process of using Moodle to enhance ESL teaching and learning?

A number of challenges emanated from the empirical data. To begin with, language barriers were found to be a hindrance to successful English language learning in group work, online forums and navigation of the Moodle interface, a situation that, according to Alhothli (2015:60) and Suppasetsee and Dennis (2010:37), is not atypical to English language programmes. The inability to communicate effectively in English which is the official language forces the students to communicate in their vernaculars in which they are able to express their opinions freely and accurately. On the other hand, the matter becomes severe when students who do not speak the same vernacular become excluded from group interactions. With reference to other studies, while Jose's (2015:27) study concluded that Moodle reduces cultural differences in face-to-face teaching, the present study revealed how the online component of Moodle was used by students as a comfort zone to promote cultural differences. This occurred when students used vernaculars that excluded others from the discussions, thus diverting from the goal of the activity - the development of the English language skills through interaction.

Another challenge related to language barriers that emanated from the study was the Moodle interface that was found not to be user-friendly, due to language barriers. Consequently, the student participants suggested navigation of the interface in multiple languages to assist students with poor English language skills (see Section 5.4.2.3). This finding contradicts existing literature that reports the Moodle interface to be user-friendly (see Section 3.3). The lecturer participants in Suppasetsee and Dennis's (2010:38-39) study also reported how they found the interface to be challenging (see Section 3.7.1). Hence, the notion of a friendly Moodle interface should not be taken for granted. Debates surrounding the SLA theory argue that it does not serve much purpose to expose students to the new language if the information is incomprehensible to them (Section 2.2.2).

Furthermore, the study revealed how the element of human touch is essential in the learning process, as it paves the way for effective guidance (see Section 5.4.1.1).

Likewise, previous studies have revealed how online lectures, videos and other Moodle learning material were insufficient on their own as students preferred face-to-face interaction with other students and the instructors (see Section 3.7). Alhothli's (2015:60) study illustrates how the student participants regarded learning via an LMS as an unconventional way of learning as they had been accustomed to face-to-face teaching (see Section 3.7). The key lesson to be learned from these scenarios is that since learning is a guided process as per the social-constructivism paradigm (see Section 2.4.5), a hybrid mode of teaching and learning that Moodle has the potential to provide would be ideal to cater for the affective dimension of learning.

6.4.5 What guidelines can be used for the effective use of Moodle to enhance ESL teaching and learning at tertiary level in a developing context?

Although great strides had been made at the research site to make the use of technology in teaching and learning a reality, actual usage of Moodle remained inadequate due to the challenges that were revealed in the present research. These challenges were turned into opportunities for improved use of Moodle to enhance the English language skills of the students, resulting in the guidelines that are hereby presented. Supplementary guidelines emanated from the suggestions that were made by the lecturer and student participants during the interviews.

The lecturer participants suggested four ways of improving practice: **increased laboratory hours, more staff training opportunities, change of beliefs and transformation of the assessment methods** that were in use. The student participants provided three suggestions: **access to the Moodle app, improved navigation** of Moodle and **increased use of the tools that were underused**. The suggestions from the lecturers are presented first, followed by the suggestions from the student participants.

6.4.5.1 Guidelines from the lecturer participants

The lecturer participants recommended **the increase of laboratory hours** so that both lecturers and students were able to accomplish much more. They felt that the one hour that was allocated for the laboratory sessions where the students used

Moodle was insufficient for them to do much that could enhance the learning experience of the students.

The lecturers were also aware of their inability to use the LMS effectively, as they expressed the need for **more training opportunities**, revealing that the training methods that were in use were inadequate. The areas where the lecturers needed more training were, for example, online assessment methods and how to use Moodle communication tools: the blogs, chat and discussion forums. Additionally, the lecturers indicated how one of the impediments to successful use of technology for teaching and learning could be their **existing beliefs**, in which case training might not have an impact unless there was a change of mindset.

Finally, the lecturer participants recommended **transformation of the assessment methods** that were in place as they felt that these methods were lacking in some aspects. They recommended a move to original or authentic assessment tasks where students could use their own creativity and avoid the habit of copying or getting answers from other sources. They also expressed unhappiness with the objective nature of the Moodle multiple-choice tasks that they felt limited the imagination of the students.

6.4.5.2 Guidelines from the student participants

Due to the challenge of accessing Moodle easily, which seemed to be a serious matter to the students, they recommended improved access by **installing a Moodle app** that they would be able to access on their mobile phones (see Section 5.4.2.4, Sub-theme 1). They felt that it would relieve the burden of accessing Moodle through the web browser.

Another related challenge was the difficulty navigating Moodle due to language barriers (see Section 5.4.2.4, Sub-theme 2). Consequently, a recommendation for **improved navigation** was given, calling for adjustment of the Moodle settings to benefit students with poor English language skills, for example, to be able to navigate the system in multiple languages.

Increased use of Moodle tools that were underused was another recommendation from the student participants. The students made an appeal for lecturers to use the tools that were minimally used such as the Moodle communication tools, the blogs

and the forums. It is unfortunate that these were the tools the lecturer participants indicated they needed training on as they were not competent to use them. Another tool that the student participants requested to be used more was the videos that they felt had the potential to improve their comprehension, especially students who were doing the fundamental English language course, PLU (see Section 5.4.2.4, Sub-theme 3). This finding concurs with findings from previous studies in educational contexts with similar students with limited L2 language skills.

The research conclusions in this section informed the design of Figure 6.1. The diagram illustrates the use of Moodle at the research site, whereby challenges were turned into opportunities to arrive at suggestions for an effective use of the system, arising from the findings of the present study.

6.4.6 How do lecturers and students involved in English language service courses use Moodle as an e-learning tool to enhance ESL teaching and learning?

Drawing on the findings of the present study, I discovered six pillars that explain how the lecturers at the research site used Moodle. Strengthened with insights from research literature, these pillars form the foundation of effective use of Moodle to enhance ELTL. These pillars serve as contribution to the existing literature in the field. These pillars are ***ICT policies, teaching and learning dimensions, staff training, Moodle tools and applications, technological*** and ***affective dimensions*** of learning. Each of these pillars is discussed below, and the pillars are further presented in Figure 6.1, to enable better comprehension.

6.4.6.1 ICT policies

The use of ICT in education has been proven to be less successful in educational contexts with lack of policies to guide the integration of ICTs (see Section 3.5.2), but successful in educational settings with supportive implementation policies (see Section 3.4.1). The research site had a supportive ICT policy, and mechanisms were in place to encourage the use of technology in education (see Section 3.5.3). This could be the explanation behind the fact that all the English language courses offered in the DoEL were using Moodle by the time the study was conducted, although the levels of usage were diverse.

In a nutshell, supportive ICT policies can serve as **enablers** of the effective use of technology in education, including Moodle. However, they might constrain the use of technology in educational settings where they are non-existent.

6.4.6.2 Teaching and learning dimensions

Teaching and learning approaches have a key role to play in the effective use of technology in ELTL. The study revealed how students expressed the need to engage in activities that prepared them for the job market (see Section 5.4.2.1, Sub-theme 1), pointing to the need to **transform the curriculum**. Similarly, Richardson (2010:149) stresses how using communication tools in ELT is a way of transforming the curriculum to prepare students for the 21st century job market where they are required to interact and collaborate with other professionals to generate and share knowledge (see Section 3.2). Exposing students to more **authentic and collaborative learning** experiences might pave the way for this goal, and technology facilitates authentic learning experiences better than traditional face-to-face teaching (see Section 3.3).

Increased use of the LMS is thus essential to reinforce collaboration and interaction in the learning process, the strategies that research literature indicates have the potential to enhance L2 learning (see Section 2.2.4). Moodle has the potential to afford these types of **interactions** that support the principles of constructivist pedagogy (see Section 2.4.2), and the interactions expose learners, the students in the present study, to the target language (see Section 2.4.3). Another key role that the lecturers need to play in the students' learning process is providing **guidance** by moderating online tasks and keeping the tasks updated, especially the assessment tasks. The electronic feedback provided in the Moodle quizzes has been found to be inadequate and thus a disadvantage (see Section 3.3). The inadequate feedback provided in the online learning environment points to the significance of the human touch element in an augmented learning environment (see Section 2.3.2). This is how the lecturers provide essential guidance to assist the students to reach the ZPD, in line with constructivist thinking.

The study also revealed how **proficiency** in the English language is an enabler to effective use of the LMS. Students' language barriers appeared to be a constraint to the effective use of the system, a situation that has been observed in other educational contexts (see Section 3.3). Although limited knowledge of the English language also

featured as a challenge in the present study, the glossary that other studies reveal has the potential to improve the vocabulary and lexicon of students with limited knowledge of the English language (see Section 3.3) was not operational in any of the three English language courses that were studied.

A need exists also to revisit and adapt the existing Moodle **assessment activities** that were found to be limiting due to their objectivity, so that the students could use critical reasoning skills to apply new knowledge. It is advisable to create assessment tasks that necessitate students to relate new knowledge to previous experiences and apply the new knowledge to new situations as per constructivist thinking (see Section 2.4.4), instead of prescribing students to conventional multiple choice quizzes.

The findings of the present study also pointed to the need for **increased use of the LMS**. This concern draws a parallel with research literature as it has been found that increased exposure to the technology has the potential for improved use of the technology (see Section 3.4.1). It is hence recommended that the laboratory hours be increased so that the lecturers and students become acquainted with the system and become competent users.

6.4.6.3 Staff training

Effective use of the LMS depends on the ability of the lecturers and students to use it (see Section 3.8). The staff training initiatives currently in use at the research site need to be revisited to ensure effective use of the system. The inability of staff to use the LMS after training had been provided is not atypical at the research site as it has been experienced in other educational settings (see Section 3.5.1). Also, students in other educational settings have recommended staff training to enable them to use the blended learning approach effectively (see Section 3.7.1). Likewise, **more training opportunities** need to be provided on a **regular basis** at **departmental level** to upgrade the knowledge and skills of the staff. The present study revealed how there was an improved use of the system when the staff received training at departmental level (see Section 5.4.1.1). **Continual guidance** of the lecturers might contribute to the effective use of the system for the benefit of the students. The **use of a variety of Moodle tools and applications** to teach the English language, especially the Moodle communication tools, has the potential to enhance comprehension (see Section 2.2.3).

6.5.6.4 Moodle tools and applications

The findings of the study pointed to the need for the lecturers to consider **using a wide range of Moodle tools** that were found idle as students felt that it would enhance their English language skills (see Section 5.4.2.3). **Video lessons**, especially, were singled out as highly beneficial in upgrading the language skills of the students with low proficiency in the English language, in line with research literature in the field (see Section 3.7).

Moreover, **advancing students' postings** to the forums has the potential to engage students actively in writing (see Section 3.3), for example by posting longer pieces, including longer responses to other students' postings. It affords an opportunity for the students to generate more ideas, consequently producing more language which enhances L2 learning, and the act of producing more language has been found to be more beneficial than simply getting L2 input (see Section 2.2.3). This might enhance their cognitive, communicative and writing skills. Increased use of the **Moodle communication tools** such as **blogs**, **chat** and **discussion forums**, facilitate opportunities for student-student interaction, enhancing input and output skills that have a role to play in L2 learning, thus enhancing language production (see Section 2.2.3).

6.4.6.5 Technological dimensions

Technological dimensions are also among the pillars that strengthen the effective use of Moodle to enhance ELTL. Technological challenges affect the use of ICTs in teaching and learning negatively as they result in lack of interest to use the tools, as it was also revealed in the policy documents (see Table 5.6). The reason the institution under study switched from Chisimba to Moodle was because the interface was found to be challenging and not user-friendly (see Section 1.2). Yet, the current research revealed how both lecturer and student participants expressed discontent with the **Moodle interface** which they considered not to be user-friendly and also challenging (see Sections 5.4.1.3 and 5.4.2.4). Existing literature in the field supports the notion of a user-friendly Moodle interface (see Section 3.3), but other studies have also reported the Moodle interface not to be user-friendly (see Section 3.7.1). This makes it a fluid situation. I am of the opinion that this is an area that needs further investigation, even though not all the participants in the present study found the Moodle interface to be challenging.

In congruence with research literature in the field, access to ICTs is another challenge that constrains the effective use of technology (see Section 3.6 and Section 3.8). The inability of students to use an **app to access the Moodle platform** easily contributes negatively to the overall use of the system. It is thus a barrier that needs to be addressed for the use of Moodle to be effective in the process of learning L2.

Debates surrounding the Moodle interface and access to the Moodle app show how technological dimensions add value to the success or failure of the technology in use for teaching and learning, including ESL.

6.4.6.6 Affective dimensions

Enhanced motivation to use the LMS is another contributing factor to its effective use. Moodle has been found to enhance motivation to learn the English language in some educational settings (see Section 3.3). The present study revealed how some students were not motivated to attend the laboratory sessions, where they use Moodle (see Section 5.4.1.3). This does not concur well with findings from other studies that have found using Moodle to be interesting and motivating, especially when used regularly (see Sections 3.4.1 and Section 3.7). However, this is a fluid situation, because some of the participants in the present study found it interesting to use Moodle to learn the English language. Poor attendance could be due to other factors beyond the scope of this study, another area of investigation. The study also revealed how, despite of training, the **existing beliefs** of the staff had a role to play in making decisions regarding the use of technology for teaching and learning, a matter that has been experienced elsewhere in the higher education sector (see Section 3.8).

An overview of the suggested pillars for the effective use of Moodle to enhance L2 teaching and learning is illustrated in Figure 6.1, below.

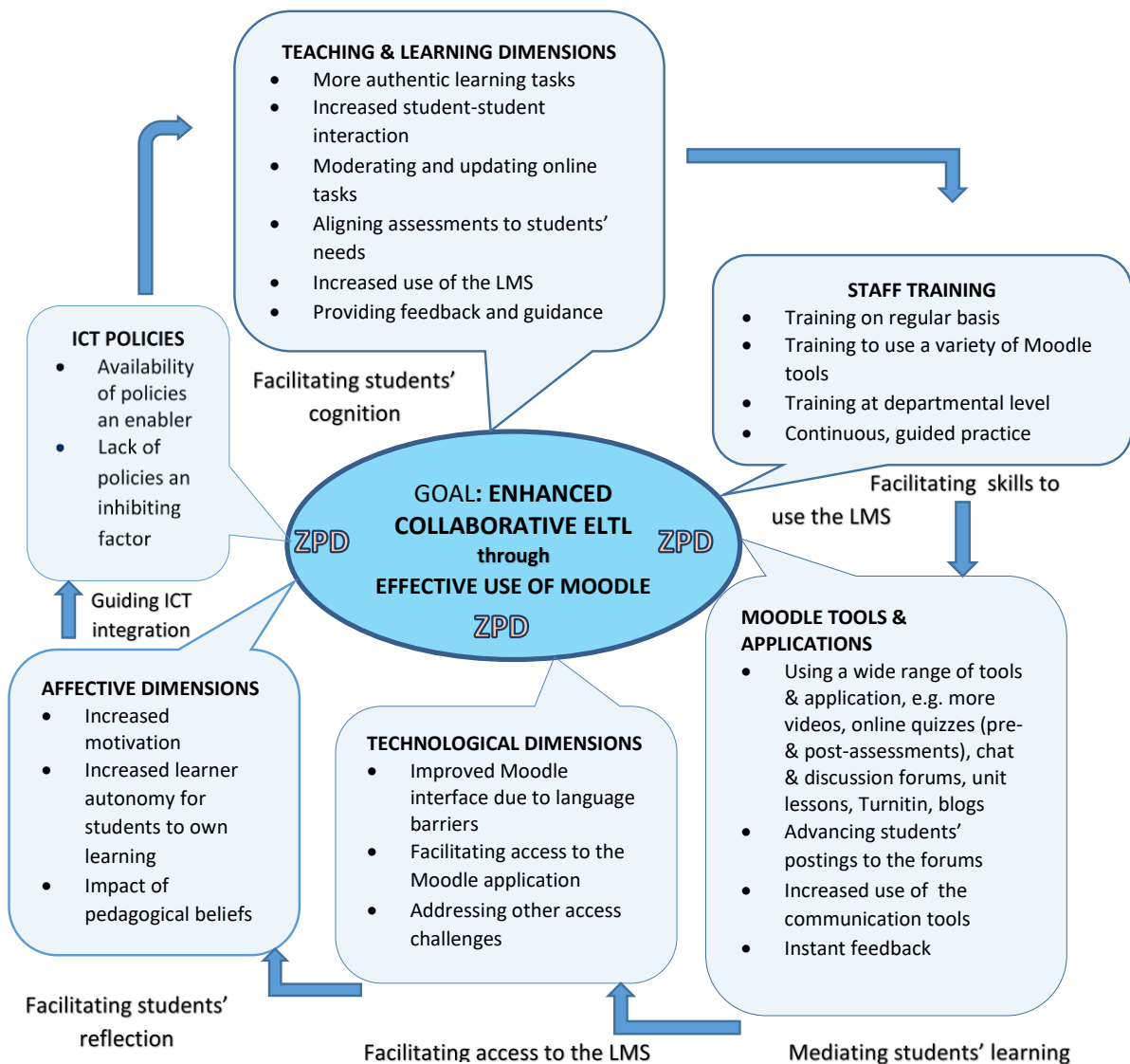


Figure 6.1 Diagrammatic representation of the six pillars for effective use of Moodle to enhance ELTL (Source: Self-made)

Figure 6.1, above, demonstrates how effective use of the LMS does not only rest on the use of the tools by the lecturers and students; it comprises other aspects that are also contributing factors to the potential of students to reach the ZPD.

6.5 CONTRIBUTION OF THE STUDY

The present study contributes to the body of knowledge by providing insights regarding the use of Moodle at the research site to enhance ELTL, considering the lack of studies in the field at the institution under study. Also, the diagrammatic representation of the

six pillars for the effective use of Moodle to enhance ELTL (Figure 6.1 above) serves as contribution to the body of knowledge. This diagram was designed in light of the findings of the present study, based on the guidelines for improved practice that were suggested by both the lecturer and student participants in the study. These guidelines are aimed to enhance interaction and collaboration in the process of using Moodle to construct new knowledge as per social constructivism theory.

The recommended guidelines have the potential to effect some change in respect of the use of Moodle to enhance ELTL at departmental and institutional levels. All the six pillars illustrated in Figure 6.1 above, namely the ICT policies, teaching and learning dimensions, staff training, Moodle tools and applications, technological dimensions and affective dimensions, have a key role to play in an effort for students to reach the ZPD. The ZPD translates into enhanced L2 teaching and learning through the use of Moodle in the context of this study, whereby students' comprehensible input and comprehensible output skills are mediated by Moodle.

In addition, as the present study points to the need for increased use of Moodle to enhance ELTL, the synthesis of the key findings of the study reveals concepts that could serve as enablers for improved practice. Some of these concepts were coined from challenges that were turned into opportunities to enable effective use of Moodle, based on the conceptual framework that was discussed in Chapter 3. These concepts are supportive national ICT policies (see Section 5.4.4.2.1, Sub-theme 1), change of existing beliefs so that the lecturers use Moodle more often (see Section 5.4.1.4, Sub-theme 3), collaborative learning through improved use of Moodle communication tools (see Section 5.4.2.4, Sub-theme 3), improved navigation to enable improved access (see Section 5.4.2.3, Sub-theme 1), providing adequate and constructive feedback (see Section 5.4.2.3, Sub-theme 4), and proficiency in the English language (see Section 5.4.2.3, Sub-theme 5). The present study revealed how these enablers play a role in enhancing the use of Moodle, and in the context of this study the objective was to enhance ELTL.

The following section presents the limitations of the study that might have an impact on the findings of the study.

6.6 LIMITATIONS

Due to the subjective nature of qualitative research, my philosophical assumptions had a role to play in the selection of the approaches and methods that were used, resulting in the limitations below that are worth acknowledging.

The fact that only one of the two public universities in the country was involved in the study could be regarded as a limitation. Engaging staff and students from the other public university would have provided more insights on the usage of Moodle.

Also, the fact that the study was qualitative confines its potential to be generalised. A mixed-method research could have been an option so that the results could be generalised to other educational contexts.

Similarly, purposive sampling that was employed has its shortcomings due to its subjective nature (Harding 2013:17). This type of sampling method is criticised for being biased and not representing the total population, but this may be an invalid argument in qualitative research where the results of the study are not usually generalised.

Furthermore, drawing on Harding (2013:22) participants in observations have a tendency to change their ways of behaviour when they are aware that they are being observed; yet, it is unethical to observe the participants without their full knowledge that they are being observed. This is a situation over which qualitative researchers have little control.

Finally, drawing on Beukes-Amiss (2011:62), the use of e-learning champion lecturers in the sample could have added to the weight of the study. These are the people who have potential to drive the integration of e-learning into teaching and learning effectively.

Despite these limitations, the study remains valuable as it was conducted in accordance with other trustworthiness criteria, and it imparts valuable insights regarding the use of Moodle in ELTL at the research site.

6.7 RECOMMENDATIONS

In view of the findings of the present study, the recommendations for educational practice are made to the DoEL and the institution where the study was conducted. Furthermore, recommendations for further studies are presented.

6.7.1 Recommendations to the Department of Education and Languages

Based on the findings that emerged from the analysis of the empirical data, the recommendations below are made to the DoEL at the research site in order to enhance the use of Moodle for English language teaching and learning.

A need exists for staff in the department to revisit the teaching and learning approaches that are currently in use to address some of the challenges that emerged from the present study, such as insufficient student-student interaction in the online activities. Moreover, increased moderation of online activities is essential, for example the forums, to cater for the scaffolding element of the learning process that was found to be minimal in the online activities involving the use of the Moodle communication tools, predominantly in the basic and intermediate English language courses.

Online assessment methods is another area that needs improvement from the lecturers' side as electronic feedback was found to be incomprehensive to guide students when they did not perform well in the online activities.

It is essential for staff in the DoEL to explore the functionalities of the embedded Moodle tools that were found to be underused or not in use in order to enhance the process of ESL teaching and learning. Some of these tools are the tools that research literature in the field has found beneficial to enable production of both comprehensible input and comprehensible output skills that SLA theory mentions are favourable in the process of L2 learning and acquisition.

The objective nature of Moodle assessment tasks, for example multiple-choice assessment tasks, is another challenge that needs lecturers' reconsideration. These tasks were found deficient in terms of expressing students' creativity and reasoning skills. Also, the lecturers are advised to consider engaging students in more online

assessment tasks to encourage them to attend the laboratory sessions. The study revealed how the lecturers were unhappy with attendance at the laboratory sessions; attendance being better when the tasks counted for assessment.

Also, the existing ESL curricula for the three courses that were studied need to be revisited as these might have a role to play in the students' poor attendance of not only the laboratory sessions but also face-to-face lessons, a concern that was raised by the lecturers. The study revealed how students preferred to use technology in their learning process rather than paper work that does not prepare them adequately for the job market, thus calling for the need to revisit the curriculum.

6.7.2 Recommendations to the institution under study

As lack of knowledge and skills to use Moodle emerged as one of the key challenges. The Teaching and Learning Unit (TLU) team at the research site need to revisit the staff training methods that are presently in use. More staff training opportunities are essential on a regular basis for the lecturers to become competent in using the system. As the study revealed how training of the lecturers at departmental level seemed to have had a more positive impact on the lecturers' ability to use Moodle when compared with the training provided to new staff members at institutional level, the TLU team is advised to consider providing more staff training sessions at departmental level. Continuous guidance is essential to ensure competent use of the system.

Also, there is a need for staff to be trained to be able to use a variety of the Moodle tools that the students felt were underutilised, especially the communication tools, such as the discussion forum.

Additionally, the lecturers and students are encouraged to use Moodle on a regular basis so that they are keen to use it and consequently become competent users of the system. The study revealed how Moodle had been operational at the institution for a long time but some of the lecturers had only started using the system when it was enforced at departmental level.

Finally, the management of the institution is advised to look into the matter of access to the LMS. Students recommended installation of a Moodle app that they would be able to access on their mobile phones for easy access.

6.7.3 Recommendations for further research

The study revealed how the majority of the lecturers at the research site had only recently started using Moodle, despite the system having been operational for a long time. This scenario has been observed in other educational settings. The present study also points to insufficient intrinsic motivation among both lecturers and students to use Moodle for ELTL. It is time for researchers in the field to shift the focus from the reasons for the ineffective use of Moodle or technology at large to investigating what can be done to motivate staff and students in a variety of educational contexts to use ICTs effectively in ELTL, Moodle inclusive.

The debates surrounding the Moodle interface and how it affects the performance of students in the English language courses is another area of research. The present study revealed how both lecturers and students were dissatisfied with the Moodle interface, which they did not find to be user-friendly, thus contradicting existing literature in the field. However, this finding of the present study is also supported by a few previous studies, making it a fluid situation that needs further investigation.

6.8 CONCLUSION

The present study revealed how the lecturers and students in the Department of Education and Languages at the research site have tried to use Moodle for English language teaching and learning. Although the Moodle platform was becoming increasingly used in the department, the use of the system remained in its infancy in the three courses that were studied, especially in the foundational and intermediate English language courses. The lecturers and students alike acknowledged some impediments that need to be addressed at departmental and institutional levels for the use of Moodle to become more effective. One of the key challenges the lecturers and students experienced is inadequate knowledge and skills to use the LMS effectively. On a positive note, the lecturers and students were aware of their predicament and appealed for more staff training opportunities to be able to use the Moodle tools that were found to be either underutilised or not in use.

Some of the Moodle communication tools that were found to be underutilised or not in use were, for example, the discussion and chat forums and the blogs. The irony of the matter is the fact that these are the tools that play a key role in the development of students' communicative competence in terms of English language teaching and learning. Research in Second Language Acquisition advocates that these tools facilitate opportunities for the production of input and output skills that are essential for the development of L2 skills. The present study was founded on the notion that learning is an interactive process and acknowledges the potential of Moodle to enhance interaction in the learning process. Drawing on the findings of the present study, I acknowledge the need for enhanced interaction through the use of Moodle tools to create opportunities for both comprehensible input and comprehensible output in the process of developing students' English language skills.

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LIST OF APPENDICES

APPENDIX A: REQUEST FOR PERMISSION TO CONDUCT RESEARCH STUDY

 FACULTY RESEARCH ETHICS COMMITTEE (F-REC) APPLICATION FORM FOR ETHICAL CLEARANCE FOR RESEARCH/DATA COLLECTION					
NB: This form should be prepared by the researcher and student researcher in consultation with supervisor/promotor) and attached to the actual research proposal, and submitted to the Faculty Research Ethics Committee					
Full name of researcher: Prof/Dr/Mr/Ms/Other: Elina T. Ithindi					
Department & Faculty of Researcher: e.g. Education and Languages / Human Sciences					
Title of research project: The use of Moodle as an e-learning tool for English language teaching and learning in Namibia					
If a registered NUST student, indicate degree programme: N/A					
NUST staff or student number: 1002333					
Supervisor/promotor (if applicable): Prof/Dr/Mr/Ms/other: G. Van den Berg					
ETHICAL CONSIDERATIONS		Yes	NS*	No	ACTION REQUIRED
1. Familiarity with ethical codes of conduct					
As researcher, I have familiarised myself with the professional code(s) of ethics and guidelines for ethically responsible research relevant to my field of study as specified in the list herewith attached, AND the policy for the assurance and promotion of ethically accountable research at NUST	X				If YES: Continue with the checklist. If NS/NO: Researcher must do so before proceeding.
2. The proposed research: (Proceed with the whole of Section 2)					
a) Involves gathering information directly from human subjects (individuals or groups) (e.g. by means of questionnaires, interviews, observation of subjects or working with personal data)	X	Yes	NS	No**	If YES: Continue with the checklist. If NO: This checklist process does not apply to the proposed research, except if 2 (b) applies.
b) Involves gathering information directly from companies, corporations, organisations, NGOs, government departments etc. that <u>is not</u> available in the public domain	X				If YES: Continue with the checklist. If NO: This checklist process does not apply to the proposed research.
C 1) Is linked to or part of a bio-medical research project C2) Is linked to or part of nuclear/radio-active research project C3) Is linked to biotechnological research project e.g. GMOs, Environmental Nanotech research etc.				X	If YES/NS: F-REC clearance will be required.
				X	
				X	
d) Involves gathering of information without consent/assent, i.e. will be conducted without the knowledge of the subjects of/participants in the research				X	If YES/NS: F-REC clearance will be required.
e) Involves collection of identifiable information about people from available records/archival material to be collected on individuals/groups/lists with personal information				X	If YES/NS: F-REC clearance will be required.

3. The proposed research involves the gathering of information from people in the following categories:				
a) Minors (persons under 18 years of age)	Yes	NS	No X	If YES/NS for any of these categories (a-f): F-REC clearance will be required. The committee must screen the proposal/project and may seek further external clarification if the ethical risk is assessed as medium or high. If NO for all of these categories: Continue with the checklist.
b) People with disabilities			X	
c) People living with/affected by HIV/AIDS			X	
d) Prisoners			X	
e) Other category deemed vulnerable; SPECIFY here: [See Glossary of SOP for definitions.]			X	
f) NUST staff, students or alumni	Yes X	NS	No	If YES/NS: F-REC clearance must be obtained. Complete the checklist and submit to the committee. If NO: Continue with the checklist.
4. Assessment of risk of potential harm as a result of the research (tick ONE appropriate YES or NS box)				
a) Minimal risk (for a classification of risk types, and definition, see Glossary and Addendum 3 in REC SOP)	Yes	NS	No	If YES: Established ethical standards apply. Proceed to 5, 6 and 7 and completion of checklist. If NO/NS: Proceed to 4b).
b) Low risk (for a classification of risk types, and definition, see Glossary and Addendum 3 in REC SOP) The research involves non-vulnerable adult human participants, but no sensitive information is involved. There is only potential risk of inconvenience.	Yes X	NS	No	If YES/NS: Established ethical standards apply; further assessment may be carried out by F-REC. Proceed to 5, 6 and 7 and completion of checklist. If NO: Continue with the checklist.
c) Medium risk (for a classification of risk types, and definition, see Glossary and Addendum 3 in REC SOP)	Yes	NS	No	If YES/NS: F-REC clearance must be obtained; further assessment/clarification may be carried out by F-REC. Proceed to 5, 6 and 7 and completion of checklist. If NO: continue with the checklist.
d) High risk (for a classification of risk types, and definition, see Glossary and Addendum 3 in REC SOP)	Yes	NS	No	If YES/NS: F-REC clearance must be obtained; further assessment/clarification may be carried out by F-REC. Proceed to 5, 6 and 7 and completion of checklist. If NO: Continue with the checklist.
5. The proposed research involves processes regarding the selection of participants in the following categories:				
a) Participants that are subordinate to the person doing the recruitment for the study	Yes	NS	No X	If YES: REC clearance may be required. If NO: Continue with the checklist.

b) Third parties are indirectly involved because of the person being studied (e.g. family members of HIV patients, parents or guardians of minors, friends)	Yes	NS	No X	If YES: REC clearance may be required. If NO: Continue with the checklist.
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6. Steps to ensure established ethical standards are applied (regardless of risk assessment)				
a) Informed consent: Appropriate provision has been/will be made for this (either written or oral)	Yes X	NS	No	If YES: Provide evidence together with the submitted proposal. Continue with checklist. If NS/NO: Attach/provide justification for further assessment and advice. This should be reflected in the evidence of 'informed consent' or as reflected in the research instrument
b) Voluntary participation: Respondents/informants will be informed, inter alia, they have the right to refuse to answer questions and to withdraw from participation at any time	X			
c) Privacy: Steps will be taken to ensure personal data of informants will be secured from improper access	X			
d) Confidentiality and anonymity: Confidentiality of information and anonymity of respondents/informants will be maintained unless explicitly waived by respondent.	X			
e) Training: research assistants/ fieldworkers will be used to collect data, and ethics awareness will be included in their training			X	
f) Mitigation of potential risk: Likelihood that mitigation of risk of harm to participants is required, is at medium/high, and appropriate steps have been/will be taken (e.g. referral for counselling)	Yes	NS	No X	If YES/NS: Develop protocols for submission to F-REC. Continue with checklist. If NO: Proceed with checklist.
g) Access: Institutional permission is required to gain access to participants and has been/will be secured. Specify here from whom: Faculty Research Evaluation Committee [If the permission letter required is available, submit it to the DESC. If it is not available, apply for it immediately and indicate to the DESC when it will be expected.]	Yes X	NS	No	If YES: Develop application for authorisation, clear with DESC & apply. Continue with checklist. If NS: Refer proposal to DESC for assessment and advice. Continue to 6 (h). If NO: Proceed to 6 (h).
h) Accountability research*: Institutional permission to gain access to participants poses an obstacle to conduct the research.	Yes	NS	No X	If YES/NS: Refer proposal to F-REC for assessment and advice. Continue with checklist. If NO: continue with checklist.
i) Public availability of instruments to gather data: [When applicable] Are the instruments that will be used to gather data available in the public domain?	Yes X	NS	No	If YES or not applicable: proceed with checklist. If NS/NO: Obtain permission to use the instrument(s) and submit letters of permission with the proposal to DESC for assessment and advice. Continue with checklist.
j) Use of psychological tests: [When applicable] Are the instruments that will be used to gather data classified by law as psychological tests?	Yes	NS	No X	If YES/NS: Indicate who will administer these tests, and whether they are appropriately registered and adequately trained to do so. Provide registration number and professional body. Continue with checklist. If NO or not applicable: Proceed with checklist.

k) Protecting data from unauthorised access: Are appropriate measures in place to protect data from unauthorized access? If yes, specify what the measures are: Hard copies of the participants' answers will be kept safe by the researcher in a filing cabinet in the office for a period of five years, after which they will be destroyed manually.	Yes X	NS	No	If YES: Specify and proceed with checklist. If NO/NS: Develop and put in place appropriate measures. Continue with checklist.
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l) Unexpected information: If unexpected, unsolicited data is revealed during the process of research, data will be kept confidential and will only be revealed if required by law.	Yes X	NS	No	If YES: Proceed with checklist. If NO/NS: Consult on this matter with F-REC for further guidance. Continue with checklist.
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m) Emergency situations: If an unexpected emergency situation is revealed during the research, whether it is caused by my research or not, it will immediately be reported to my supervisor/promotor and Departmental Chair for further advice.	Yes X	NS	No	If YES: Proceed with checklist. If NO/NS: Consult on this matter with F-REC. Continue with checklist.
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n) Permission to use archival data: [When applicable] Is permission granted from the custodian of the archive to use it.	Yes	NS	No X	If YES: Proceed with checklist. If NO/NS: Consult on this matter with F-REC. Continue with checklist.
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o) The archive itself does not pose problems: [When applicable] The initial conditions under which the archive originated allow you as a third party researcher to use the material in the archive.	Yes X	NS	No	If YES, proceed with checklist. If NO/NS: Consult on this matter with F-REC. Continue with checklist.
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7. Conflict of interest

Is the researcher aware of any actual or potential conflict of interest in his/her proceeding with this research? To avoid the potential biases of the researcher due to the close relationship between the researcher and the setting, the researcher will employ two methods of bracketing: memoing and engaging an outsider in the interviewing process. This will help the researcher to mitigate own preconceptions and to reflect on all the stages of the research process.	Yes X	NS	No	If YES/NS: Identify concerns, attach details of steps to manage them, and refer to F-REC for assessment and advice. If NO: No further action required, except signing the declaration and the checklist, and submitting it to the DESC with supporting documentation.
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DECLARATION BY RESEARCHER:


I hereby declare that I will conduct my research in compliance with the professional code(s) of ethics and guidelines for ethically responsible research relevant to my field of study as specified in the list herewith attached, AND the 'Framework policy for the assurance and promotion of ethically accountable research at the Namibia University of Science and Technology', even if my research poses minimal or low ethical risk.

Print name of Researcher: ELINA T. ITHINDI	Signature of Researcher: 
Date: 12/03/2018	

Print name of Supervisor (if applicable): PROF G. VAN DEN BERG	Signature of Supervisor 
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Date: 13/03/2018	
Print name of co-supervisor(s) (if applicable): N/A	
Date: N/A	

APPENDIX B: PERMISSION TO CONDUCT RESEARCH STUDY



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY RESEARCH ETHICS COMMITTEE (F-REC)

DECISION: ETHICS APPROVAL

Ref: S002/2018
Staff no.: 1002333
Date: 20 April 2018

RESEARCH TOPIC

Application of Moodle as an e-learning tool for English language teaching and learning in Namibia
[PhD in Curriculum and Instructional Studies]

<p>Researcher: Mrs. ET Ithindi Tel: +264 61 207-2018 E-mail: ethindi@nust.na</p>	<p>Supervisor: Prof G vd Berg Tel: +27 12 429-4895 E-mail: vdberg@unisa.ac.za</p>
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Dear Mrs. Elina Ithindi,

The Faculty of Human Sciences Ethics Screening Committee (F-REC) of the Namibia University of Science and Technology reviewed your application for the above-mentioned research. The research as set out in the application has been approved.

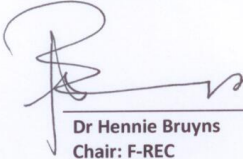
We would like to point out that you, as researcher, are obliged to:

- maintain the ethical integrity of your research,
- adhere to the Research policy and ethical guidelines of NUST, and
- remain within the scope of your research proposal and supporting evidence as submitted to the F-REC.

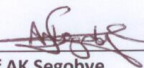
Should any aspect of your research change from the information as presented to the F-REC, which could have an effect on the possibility of harm to any research subject, you are under the obligation to report it immediately to your supervisor or F-REC as applicable in writing. Should there be any uncertainty in this regard, you have to consult with the F-REC.

We wish you success with your research, and trust that it will make a positive contribution to the quest for knowledge at NUST.

Sincerely,



Dr Hennie Bruyns
Chair: F-REC
Tel: +264 61 207-2988
E-mail: hjbruyns@nust.na



Prof AK Segoby
Dean: FoHS
Tel: +264 61 207-2418
E-mail: asegoby@nust.na

APPENDIX C: CONSENT LETTER FOR AN ADULT



PARTICIPANT INFORMATION SHEET

DATE: 16 April 2018

TITLE: **The use of Moodle as an e-learning tool for English language teaching and learning in Namibia**

DEAR PROSPECTIVE PARTICIPANT

My name is Elina T. Ithindi and I am doing research under the supervision of Professor G. Van den Berg, a professor in the Department of Curriculum and Instructional Studies, towards a PhD at the University of South Africa. We are inviting you to participate in a study entitled **The use of Moodle as an e-learning tool for English language teaching and learning in Namibia**.

WHAT IS THE PURPOSE OF THE STUDY?

This study is expected to collect important information that could uncover how Moodle applications are being used in the English language service courses, paving the way for enhanced blended learning. Furthermore, the findings of the study will enable educators to understand technology-mediated educational processes in order to make informed educational decisions. Also, the challenges and barriers experienced would sensitize curriculum developers and other stakeholders in education on the problems experienced in the application of technology at classroom level in higher education, especially in English language teaching, thus guiding them when dealing with policy issues.

WHY AM I BEING INVITED TO PARTICIPATE?

You are invited because you belong to the institution where the need to conduct the research has been observed, and you have the potential to provide relevant information pertaining to the research. I obtained your contact details from the lecturer of your English language service course. A total of six lecturers and eighteen students will participate in the study.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

Your role in the study is to participate in individual or focus group interviews. The study involves audio taping of individual semi-structured or focus group interviews. A list of individual and focus group interview questions is available for your perusal. The expected duration of participation in the research is three weeks per English language service course, and the time needed to complete individual and focus group interviews is about forty minutes per interview session.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

As a participant in the study you will have access to the published report of the study, where your identity will be protected. Also, participating in the study may have some direct benefits for you as the study will benefit students, lecturers, curriculum developers and other stakeholders in education.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

There is no foreseeable risk of harm or side-effects to the potential participants, other than the risk of inconvenience. Participation in the study is voluntary, and the participants will have the right to withdraw should they experience emotional discomfort.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

As a participant, your name will not be recorded anywhere and no one, apart from the researcher and identified members of the research team, will know about your involvement in this research. Also, your name will not be recorded anywhere, and no one will be able to connect you to the answers you give. Your answers will be given a code number, or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.

Your answers may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research Ethics Review Committee.

Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

The data you will provide may be used anonymously for other purposes, such as a research report, journal articles and/or conference proceedings. However, individual participants will not be identifiable in such a report. Please keep in mind that it is sometimes impossible to make an absolute guarantee of confidentiality or anonymity, e.g. when focus groups are used as a data collection method.

Yin (2015:336) describes a focus group as “a form of data collection whereby the researcher convenes a small group of people having similar attributes, experiences, or “focus” and leads the group in a nondirective manner ... to surface the perspectives of the people in the group with as minimal influence by the researcher as possible”. While every effort will be made by the researcher to ensure that you will not be connected to the information that you share during the focus group, I cannot guarantee that other participants in the focus group will treat information confidentially. I shall, however, encourage all participants to do so. For this reason, I advise you not to disclose personally sensitive information in the focus group.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing cabinet in the Department of Education and Languages at NUST for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. The hard copies of your answers will be shredded manually after a period of five years.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

There will be no reimbursement or any incentives for participation in the research.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

This study has received written approval from the Research Ethics Review Committee of the College of Education, UNISA, Reference number 2018/02/14/58527788/27/MC, as well as from the School of Human Sciences Research Ethics Committee at NUST, Reference number S002/2018. Copies of the approval letters can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Ms. Elina T. Ithindi on 061-2072018 or 0812512067, or email ewithindi@gmail.com. The findings are accessible for a period of five years. Should you require any further information or want to contact the researcher about any aspect of this study, please contact Ms. Elina T. Ithindi at 061-207 2018 or email ewithindi@gmail.com.

Should you have concerns about the way in which the research has been conducted, you may contact Professor G. Van den Berg at 012-429 4895, or fax 086-613 3903 or email vdberg@unisa.ac.za.

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.

Elina T. Ithindi

APPENDIX D: CONSENT TO PARTICIPATE IN THE STUDY (RETURN SLIP)

CONSENT/ASSENT TO PARTICIPATE IN THIS STUDY (Return slip)

Ethical clearance reference number: **2018/02/14/58527788/27/MC**

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty.

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the individual / focus group interviews.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname (print please) _____

Participant Signature


Date

Researcher's Name & Surname (print please) _____

Researcher's signature

Date

APPENDIX E: ETHICAL CLEARANCE CERTIFICATE

UNISA 

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2018/02/14

Dear Mrs Ithindi

Decision: Ethics Approval from
2018/21/14 to 2023/02/14

Ref: 2018/02/14/58527788/30/MC
Name: Mrs ET Ithindi
Student: 58527788

Researcher(s): Name: Mrs ET Ithindi
E-mail address: 58527788@mylife.unisa.ac.za
Telephone: +264 61 207 2018

Supervisor(s): Name: Prof G Van den Berg
E-mail address: vdberg@unisa.ac.za
Telephone: +27 12 429 4895

Title of research:

Application of Moodle as an e-learning tool for English language teaching and learning in Namibia

Qualification: PhD in Curriculum and Instructional studies

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2018/02/14 to 2023/02/14.

*The **Low risk** application was reviewed by the Ethics Review Committee on 2018/02/14 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

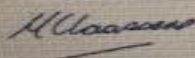
1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.
5. 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. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. 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.
7. No field work activities may continue after the expiry date **2023/02/14**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2018/02/14/58527788/27/MC** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Kind regards,



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APPENDIX F: CLASSROOM OBSERVATION CHECKLIST

CLASSROOM OBSERVATION CHECKLIST

Ethical clearance reference number: **2018/02/14/58527788/27/MC**

Date: _____

Course: _____

Location: _____ Mode: Face-to-face ___ Lab session__ (Tick)

Lecturer pseudonym: _____ Number of students present: _____

Time observation started: _____ Time observation ended: _____

1. Lesson aim:

2. Tools in use: (Optional for face-to-face mode)

Synchronous:

Asynchronous:

3. Other teaching technologies in use:

4. Language teaching methods in use:

5. Distribution of learning content:

Parallel (face-to-face and lab/Moodle) ___ Isolated ___ (face-to-face or lab only) Tick and delete what is not applicable.

6. Interaction pattern:

Whole class ___ Pair work ___ Group work ___ Individual work ___ Other ___ (Tick)

Comments:

7. Involvement of learning subjects in the

lesson: _____

8. Scaffolding strategies to enhance comprehension: Evident ___ Not observed ___ (Tick)

Comments: _____

9. Use of authentic learning materials to support language learning:

Evident _____ Not observed ___ (Tick)

Comments: _____

10. Use of activities that prepare students for real world contexts: Evident _____ Not observed _____ (Tick)

Comments: _____

11. Types of activities students engaged in, e.g. reading, writing, oral/aural, vocabulary & grammar

12. Exemplary use of Moodle to enhance language learning: (Lab lessons)

13. Challenges experienced during the lesson:

14. Access to Moodle and its applications (Lab lessons only): Easily accessible _____

Challenging _____ (Tick)

Comments: _____

APPENDIX G: INDIVIDUAL LETURERS' INTERVIEW QUESTIONS

INDIVIDUAL LETURERS' INTERVIEW QUESTIONS

Ethical clearance reference number: **2018/02/14/58527788/27/MC**

1. How long have you been teaching English at tertiary level?
2. How long have you used Moodle to teach the English language courses?
3. Why do you use Moodle to teach English?
4. How effectively do you think Moodle is used for English language teaching and learning in the department? Explain.
5. Do you think you have sufficient knowledge and skills to use Moodle tools/applications for English language teaching and learning? Explain.
6. Which Moodle sub-tools/applications do you use to teach the English language service course you are teaching, and how do you use them?
7. How easy or difficult is it to access Moodle and its sub-tools/applications?
8. Do you have any exemplary experience of using Moodle for English language teaching and learning?
9. What obstacles are you facing in the process of using Moodle for English language teaching and learning?
10. Based on your experience of using Moodle in this course, how do you think Moodle can be best used to enhance English language teaching and learning?

APPENDIX H: STUDENTS' FOCUS GROUP INTERVIEW QUESTIONS

STUDENTS' FOCUS GROUP INTERVIEW QUESTIONS

Ethical clearance reference number: **2018/02/14/58527788/27/MC**

1. What experience do you have in using Moodle for English language teaching and learning?
2. What motivates you to use Moodle for English language teaching and learning?
3. What is your opinion on the use of the tools available on the Moodle platform for English language teaching and learning?
4. What do you use the following Moodle communication tools for in your English language course?
Blog
Forum
Chat
Mail
Calendar
5. What other Moodle tools do you use for language teaching and learning, and how do you use them?
6. What is your opinion on the English language activities available on Moodle?
7. Have you observed any good examples of using Moodle in your English language course? Explain.
8. How do you feel about accessing the Moodle platform for your English language course? Is it easily accessible or not? Explain.
9. Do you think Moodle has potential to improve your English language skills? Explain.
10. What obstacles have you experienced in the process of using Moodle in your English language course?
11. What suggestions do you have to enhance the use of Moodle in the English language courses?

APPENDIX I: SAMPLE LECTURER INTERVIEW TRANSCRIPT

As the interviewee had already been given the information sheet pertaining to the research being conducted and had given consent to be interviewed, the interviewer introduced the external observer whose presence in the interview had already been explained to the interviewee. The role of the external observer was restated, which was to monitor the interview process due to the close relationship between the researcher and the interviewees. The purpose of the interview was reiterated, and it was to find out how technology, specifically Moodle, was being used in English language teaching and learning. Then, the interview started as transcribed below.

Interviewer: Ok, thank you for your participation in the interview. We're going to start with the first question that is about how long you've been teaching English at tertiary level.

L5: It is a pleasure to be part of the study, as I believe it has a great benefit to the institution and personal growth, and for that I'm very honoured to be part of you studies.

Interviewer: Ok, thank you.

L5: I've been here at xxx for six years now and I've been lecturing English for Academic Purposes as well as English in Practice.

Interviewer: Ok, so you haven't been teaching at tertiary level before joining, xxx?

L5: No!

Interviewer: Ok, Ok. EPR and EAP (Taking notes). I'm not writing down everything because everything is going to be transcribed. How long have you used Moodle to teach English language courses?

L5: I think the Moodle platform has been here for a while, but it was just introduced... not really introduced, enforced. Should I use that word?

Interviewer: It's fine.

L5: ...made a compulsory aspect in our course last year.

Interviewer: Ok.

L5: So that at least we can get engaged. As you know it has been there and everybody was not willing to attend, as it's a new thing. Technology is such a challenge and you feel like it's going to take our...a lot of time and take us away from our workload, not knowing that it w

Interviewer: Ok, thank you. And then, why do you use Moodle to teach English? What is the reason behind using Moodle?

L5: After the first training we had with Mr XXX our technician here, we gave it a try. And it was really easy. It's an easy way of reaching out to a huge number of students, and we also realised that it's a fun way as most young people get to...enjoy on working on computers. Technology this is what they do all the time. So, working in the labs and working on Moodle, was a good experience for both the lecturer and students. For the lecturer it's an easy way because you can reach to a huge number of students as they can... do the activities wherever they are.

Interviewer: Ok. Thank you. Then, how effectively do you think Moodle is used in English language courses in the department?

L5: It's effective as we make use of it for assessment tasks, to assess the ability of students, very effective as it's self-mark. They can immediately see their results and then that motivates them. Like, now, I got 20 out of 50, reason being they go back, and the feedback is always provided immediately, so that's very effective as they're learning as they are going through it. Not like the...not like the normal class activities where they have to wait for a week or two for marks to be returned. Here immediately they can see, and there are some

tasks that we call them pre-assessment tasks. So, they can have, what do you call it...a trial, three to four times. They do it first time it 5 out of 20, they do it again until they master the content. So, it's very effective in that sense that they are busy learning.

Interviewer: Ok, in other words the pre-assessment tasks give them an opportunity for more practice, before they do the real assessment task.

L5: Yes, which is called the post-assessment.

Interviewer: Ok.

L5: So, these attempts are wonderful. They're very effective, you see how they feel challenged, and the good part of it: they immediately see the feedback. And sometimes...we were even very surprised how they can find the right answer which is not the one that we have created as the most appropriate one. So, meaning it's really effective and they're learning a lot.

Interviewer: Ooh. So, you ... and then this means you're also learning from them...

L5: Yes, from them.

Interviewer: ... in a way. Ok, good. Then, do you think you have sufficient knowledge and skills to use, the Moodle tools or applications to teach English?

L5: As we've said with the previous question, it's a learning process for both of us, and as teaching and learning indeed we all learn from each other. I still have not acquired the relevant necessary skills yet. I think I'm still busy learning, but since I'm enjoying it a lot, it's going very well.

Interviewer: Ok, so you are still in the learning process.

L5: Still in the learning process.

Interviewer: Ok, good. Then which Moodle sub-tools or applications do you use to teach the English language service course that you're teaching, and how do you use them?

(Pause).The applications that you are using.

L5: We make use of, we have the discussion forum, but our main...the main one that I mainly use is the e-learning platform.

Interviewer: Oh, discussion forum, (Taking notes).

L5: And within the learning platform is where we have the discussion forum and the...I don't know the other ones...The rest are just fillings where we have assessments on its own, the study guide is an e-guide , so we don't have hard copies, so they have a good guide on it, so I think that is the e-learning platform and then in addition we have a discussion forum at least to meet all the students at once and have a chat on introduction to the topic of discussion, introduction to report, what are your views on report writing, any idea on the different type of reports and then we have a chat generally, after that we have a pre-assessment task that they can do on their own and then we can assess them formally.

Interviewer: Ok, do you also use discussion forum for the pre-assessment task?

L5: Yes, it's more effective for pre- than for post. Because for post is for...marks, for continuous assessment. That's the fourth...the final test. With a discussion forum, as some of them know each other, so they also have informal conversations.

Interviewer: Ok, among themselves.

L5: Among themselves. As they are commenting they have...the...to mix codes, where they have Afrikaans in.

Interviewer: Ooh. So, they use some other languages sometimes.

L5: Some other languages, yes. What do you think? How can you say something like "Etse" "Jy moet..." You know then you're...ag, it's a discussion, then it's fine, let it be. But during

the formal one we can't...we should not, as English for Academic Purposes has, conventions that need to be adhered to.

Interviewer: Ok, and then, how easy or difficult is it to access Moodle and its sub-tools or applications, things like discussion forum as you said and others?

L5: It's very easy as one makes use of, own credentials. At the beginning of the semester our students attend a session in the library with a chief librarian, to take them through on how to use the library, and through that process they are given a username and then they come up with their own password. That's what we use, to log on e-learning.

Interviewer: In other words, it's the library that, introduces students to the e-learning course or what?

L5: They introduce them to... perhaps I do not know, but their task is covered in Unit 2 of EAP as to teach them on how to use the library, how to find books.

Interviewer: Ok.

L5: Yes. But we realise that maybe through that, as they need to log on, to find the catalogue and all those things, they're given, a brief view on how to log on e-learning. And it's very easy. It has a username which is always their student number and then a password of your own.

Interviewer: Ok. Then, do you have any example of using Moodle for English language teaching and learning that was really good? Something that you have done, that was really good, where you have used Moodle or technology for English language teaching?

L5: Most of the activities were very, very good. Because it is easy to come up with task-mainly for language usage, which is the grammar part, the morphemes, and the word formation. It's... when you send them up it's always easy, because you can do that in multiple choice, you can do that in a drag and drop, and you can do that in short answers, so the activities for language usage and text structure, as well as academic writing features, those were easy.

Interviewer: Ok.

L5: Yes. The only difficult part when it comes to... perhaps it's the following question.

Interviewer: Yes, yes. We have a question on challenges somehow, the next one. The obstacles. Should we move on with that one?

L5: Ja, I think the most of it is very easy to use, because you can come up with a variety-mix and match- those activities are easy to construct and all that.

Interviewer: Ok.

L5: Ja.

Interviewer: Then, we have nearly finished, what obstacles are you facing in the process of using Moodle, or have you faced in the process of using Moodle for English language teaching and learning?

L5: Yes, as I wanted to jump the gun here, the greatest obstacle is the setting up of these various self-mark activities in terms of the writing component. Writing is a huge challenge in terms of assessment as it initially takes long. So, now that it has to be done as a pre-assessment task, it's a huge obstacle that we still don't know how to go about it.

Interviewer: I have a question about that. Do you write the assessment activities yourselves?

L5: You set them up. Yes.

Interviewer: You set them up. And uploading them to Moodle, who does that?

L5: Still us.

Interviewer: Ooh. I thought there was a change.

L5: No. We have to, that was part of the training.

Interviewer: Yes, set (Taking notes). .

L5: So, you set and then that's the obstacle indeed, you set up thinking this way is easy, when you get to the setting up , the option is the challenge, now you can't find the appropriate answer. In terms of writing, report writing, that's the only writing component we do. Like in report writing, the only way we could manage, was through providing a report that is scrambled-mixed up. The introduction is in the middle, the conclusion is at the top, and the only way they can do that is through then re-arranging paragraphs where they can drag a paragraph and drop it in the right order. But apart from that which I think is not enough assessment because mainly when it comes to writing, we have to look at the sentence construction, the spelling, now, this gives you difficulties in assessing that. Otherwise it will have to be they have to write a report assignment which they also do, and then they upload via Turnitin, and from there as a lecturer I have to assess and pick up all the grammars and return. That again goes back to the old school of a week or two, to wait for feedback.

Interviewer: Ok. In other words, unfortunately technology cannot do that task for you.

L5: Not at all. I think that's the greatest obstacle when it comes to setting up self-assessment marks, in terms of the writing component.

Interviewer: Ok. Writing component (Taking notes). Well, we have only one question left based on your experience of using Moodle in your course, how do you think Moodle can be best used or improved, to enhance English language teaching and learning? Any changes that can be made to improve it?

L5: I don't think it's necessary for a change. But I think it's necessary for continuous practice. More, training and training. So that at least we have all the necessary skills. I think the more you practice on the computer, you tend to pick up different ways of teaching the issues. Perhaps not necessarily to find the grammatical..., the sentence structure. Maybe we can now try to give a paragraph, and in this paragraph let them find out the tenses, but then again it takes us back to language usage.

Interviewer: Ja, ja. Because your main concentration is writing.

L5: Is writing! But then how can we keep the writing normal way, because it's also assessed as a separate assignment. And then we have it...we...we have other short activities for language usage which is a component in writing, text structure which is a component in writing and then another very important thing in my experience is that it will be...it can be best used to enhance EAP and ERP, if all students take it serious.

Interviewer: Ok.

L5: The problem is that students do not take e-learning serious. They only attempt the post assessment tasks. They only want to do things for marks. So, when they get in there they already ask: "Ma'am is this for assessment?" "No, as per your course outline this week we're doing the pre-task." "Ag, I have another class. Can I be excused?"

Interviewer: Yes, and I have a question related to what you just said now. When I was checking on the system, I've noticed that sometimes you ask students, to comment on other students' postings, when you're d...when they're doing discussion forum, for examples. But it looks like they don't post..., I mean they don't reply to the other students' postings. They only reply to you the lecturers, but then they don't reply in many cases they don't reply to other students. Is it maybe because it is not for marks, as you said, that when something is not for marks, then they don't really do it effectively?

L5: I think in addition to that is the fear of not knowing each other. How will the next person take it?

Interviewer: Ooh.

L5: Yes, so they feel maybe, by a comment on his work, he might be offended, or she might feel I'm picking on him or her, but those who know each other they mainly comment, and that's true, then the comment becomes so biased, it becomes a dialogue. It's only between those two or three people who know each other, the rest of the people are left out in the discussion unless you come in as a lecturer, then they comment, they respond to you. I think again I'll refer back to more training.

Interviewer: So, there's still..., Need more training. (Taking notes).

L5: Training on: How does a discussion forum work?

Interviewer: Ok, Ok. I...guess this is it; and, thanks a lot for your input. And, well this is it.

L5: Thank you very much.

Interviewer: And, what I'm going to do, I'm going to transcribe everything that we said here, transcribing the audio, and when I have finished, I'll give you a copy, for you to go through and just confirm that, yes; this is what we discussed.

L5: Alright.

Interviewer: Thank you.

L5: You're welcome.

APPENDIX J: SAMPLE FOCUS GROUP INTERVIEW

Interviewer: Good morning fellow students, I'm also a student for now. Thank you for coming to participate in our focus group interview. We have a few questions to answer. Don't be waiting to be given a turn. As soon as you are ready to say something, just go ahead and say whatever you want to say. So, the first question is your experience of using Moodle for English language teaching and learning. So, what experience do you have in using Moodle for English language teaching and learning? By the way are you using Moodle for English language teaching and learning?

Students A & B: Yes ma'am.

Student A: The experience, this was my first-time experience with Moodle as a teaching and learning interface, but I would say my experience was quite good as it's a user-friendly way of gaining access or may I say teaching material. Prior, prior to Moodle in my high school experiences you need to get physical documentation but with the use of Moodle now it's at the touch of your fingertips, so you can get the material quite faster; so, I think I have a good experience with Moodle.

Interviewer: Ok. You said it's your first experience in this specific course EAP?

Student A: All around ma'am, overall.

Interviewer: So, meaning you are using Moodle for the first time in EAP? You have already used it for other English courses, right?

Student A: No ma'am, no.

Interviewer: Oh, you started with EAP?

Student A: Yes, it's the first time.

Interviewer: All of you?

A number of interviewees at once: Yes.

Student B: I started with EAP

Interviewer: You started with?

Student B: EAP

Interviewer: Is it...

Student B: I mean, no I mean EPR.

Interviewer: EPR?

Student B: Yes.

Interviewer: In your case, this is probably the second time you are using Moodle.

Student B Second time

Interviewer: Thank you...EPR". Second time (Taking notes).

Interviewer: Ok. Thank you. Then, what motivates you to use Moodle for English language teaching and learning? In other words, what encourages you to use Moodle?

Student C: I think the basic structure of most of our online lessons or tutorials where we usually have a course test or a pre-test on Moodle, so for us to accumulate marks and also to do those activities, certain activities you have to go onto Moodle to access them. So, I think by them, by teachers allocating the activities and putting them on Moodle. It motivates us to interact with the interface, because we are required to do those activities.

Interviewer: Ok. So, basically because of the way the lessons are kind of a structured and also for assessment purposes as you said for you to be able to get your marks. Ok. Anybody else who wants to add something else how Moodle, what motivates you to use Moodle for English?

Student B: I think also like, this is one of like, wherever you are can access it if you have internet.

Interviewer: Wherever?

Student D: Wherever you are.

A number of interviewees at once: Wherever.

Interviewer: Wherever...easily accessible. Accessibility (Taking notes). Anything else? (Pause). Nothing! Ok. Then, what is your opinion on the use of the tools that we have available on the Moodle platform for English language teaching and learning? By tools I mean, things like what is listed under number 4 here, the blog, chat, forum, discussion forum and others. So, what is your opinion on the use of these tools in Moodle? So, how are they used in Moodle? What is your opinion?

Student A: Again, I have a positive opinion in respect to Moodle and platform presented, this is because they are categorized to make it easier for you. So, ma'am just said if you have a blog, a forum, a chat, mail, calendar and grades; so, if you enter your English for Academic Purpose under the Moodle, you can access your grades easier. If you wish to have a query or a discussion with fellow EAP students, you can also go about by using the tools available from Moodle. So, again I have a positive opinion.

Interviewer: You mentioned something about for example chatting with other EAP students. Do you do that sometimes? Using Moodle?

Student A: I have done it, yes.

Interviewer: How many of you have done it?

Student D: All of us.

Interviewer: All of you? Have you?

Student B: I did not.

Interviewer: Oh, you haven't.

Student B: Not yet.

Interviewer: Ok. So, the three of you have done it. We are talking about your opinion on the use of these tools. He said something, anybody else who wants to add something?

Student C: I also believe that in terms of communication between student and lecturer, it enhances the amount of receptivity or how much the teacher can tell us through Moodle. So, if at any point in the day if he has to discuss something with us or say or send a form or tell us we have activities, he can send it through Moodle, or through chat forum, where then students across the class are able to access and see what he or she is telling us or ask us what to do, or providing us with.

Interviewer: Thank you. In other words, you feel like it enhances communication between the teachers, I mean the lecturers and the students. Anybody else who wants to add, or should we move on? Then, what do you use these specific tools for in your English language course, for example the blog...do you use it? If you don't use it, just say no! We don't use it.

A number of interviewees at once: No!

Interviewer: So, you don't use the blog. What about the forum, for example the discussion forum?

A number of interviewees at once: Yes.

Interviewer: Do you use it?

A number of interviewees at once: Yes.

Interviewer: How do you use it?

Student C: I think mostly in discussing activities, and also research.

Student D: For research, like this other activity that we did of the B1. Wasn't that a discussion forum topic? The B1 road.

Interviewer: When doing research (Taking notes). For research, how do you use it for research?

Student D: We did a research topic like, or an activity let me say so we had to go onto the discussion forum. And then we had to read the activity and answer the question that was (pause)

Interviewer: That are already on the discussion forum?

Student A: You just opened up a discussion amongst the students on the abuse, on the high accident rates on the B1 road which was a positive as you could see each and everybody's unique view on this whole accident problem. So, in that sense it assists for us just to see or obtain different ideas from other students.

Interviewer: Good, that one is now clear. So, it's like a discussion is open and then you express your views.

A number of interviewees at once: Yes!

Interviewer: Yes, Thank you. What about the chat? Chat forum, for example? JA! You said you use it.

Students A & D: Ja.

Student A: That we said we said in the previous.

Interviewer: Maybe we just need..., yes, you use it. Is it only among yourselves or with the lecturer as well?

Student A: Not with English, because the lecturer...

Interviewer: Oh no! No! It has to be in English. So if you don't use it for English, just say you don't use it.

Student A: No.

Student B: Because I just I use it for other courses.

Interviewer: But for English you don't use it?

Student B: I never used it.

Interviewer: Then, you should say no.

Student A: The instructions are usually very clear from the lecturer to us.

Interviewer: For other courses, but not for English.

Student A: No, for English.

Interviewer: Ok, in other words for English instructions are clear therefore you don't need the chat.

Student A: Yes ma'am.

Interviewer: Ok. Not needed, because instructions are clear (Taking notes). Ok. I will finish writing down everything else later. What about the e-mail?

Student C: No ma'am.

Student D: No.

Interviewer: You don't use it?

Student C: No.

Interviewer: Not at all?

Students C & D: No

Interviewer: Not even to communicate with the lecturer?

Student C: No. I think...from the chat forum and the chats, those forums, I think they're sufficient for us to communicate to the lecturers and voice our opinions or ask questions, so with the mail it's, it

feels like it's a bit more formal and it takes a bit more, it takes out the accessibility and the efficiency of communicating with the lecturer.

Interviewer: Oh, you don't feel like using the mail.

Student A: It's not that comfortable for a student to constantly type e-mails, but in a chat...

Interviewer: Oh! You prefer a chat that is kind of more informal.

A number of interviewees at once: Yes!

Interviewer: Ok.

Student A: It makes us feel more comfortable.

Interviewer: Ok! I like that. And what about the calendar?

Student D: We use it; that one we use. Especially for me whenever I..., like going on e-learning itself, I like going there by the calendar and check and then you see when which activity is due, how many days do I have to complete an activity or post a test or when is the assignment due and stuff like that. It's really useful for me.

Interviewer: Ok. So, is useful. Anybody else who wants to add to the calendar tool?

Student B: Ma'am I think she voiced.

Interviewer: She has said everything. Good. What alternative tools do you use for language teaching and learning...other tools that are not mentioned here? And how do you use them, because possibly there are some other tools that are not listed here that you use.

Student A: Yes ma'am, the one I noticed was unit lessons. This is where you can obtain documents or slides that were used during a lecture, so if you missed a certain part or that day you could not attend you can simply go and access the course documents there and receive that specific unit you missed out.

Interviewer: OK

Student A: Ok. So, in that sense it kind of gives you a bit of flexibility, as in if I miss a class, not on purpose of course, but due to unforeseen circumstances; I know Moodle can assist me in obtaining the knowledge that I missed out because I was not in class.

Interviewer: So, the content itself in other words.

Student A: Yes.

Interviewer: The lesson units. Ok. Any other probably tool you use besides the...

Student B: I don't know if this one is a tool, but also under announcements, that's where you get a lot of information.

Interviewer: The announcement box. So, you said you get what there?

Student B: Most information. There are even sometimes like even when the test is postponed, or they change the due dates for the activities or stuff.

Interviewer: Ok. So, it's not just course information, but key information sometimes.

Student B: I'll say ja.

Interviewer: Then, I think we move on. What is your opinion on the English language activities that we have available on Moodle? Here we are talking about for example you talked about the course content, the activities then that we have in the course, under the course content, so what is your opinion? How do you feel about those activities? How beneficial are they to you?

Student C: I think for...especially in EAP where we have a pre...

Student D: And post.

Student C: Pre and post-test assessments where it's before we start a unit, we would have a pre-test or pre-exam where we would go and then inside or included in the test would be the things that we would be doing in the units, where for example we were talking about research and we were going to do a research unit. The pre-test would be on research and would focus on research. And then we'd have the unit and we'd go through the unit during the week and then afterwards in the post-test which is the one which is usually examined and would be taken for marks they would take... there would be questions, more thorough questions that would then be involved in the units and also giving us more of a run through of what we've gone through during the week, and so it allows for us also then to refresh what we've learned and regain and reinforce what you've learned.

Interviewer: To reflect.

Student C: And also, it's just also another good way to accumulate marks, because then you...

Student D: You know what you get.

Student C: You know what you get exactly afterwards, because it's usually multiple choice and then you receive your marks as soon as you finish with the post and pre-test.

Interviewer: Ok. So, one key thing that you like is the pre and post assessment activities.

Student D: And the fact that you get your marks there right after you just submit your...

Interviewer: Getting marks instantly (Taking notes).

Student D: Yes.

Interviewer: Anything else?

Student A: Another positivity I can state about the activities available on Moodle is in a sense of the pre-test; it gives a little bit of self-evaluation of where you stand before you even start to learn, which I found to be very helpful because then you can determine how much input you need in respect to that specific chapter. So, Moodle has assisted in that sense.

Interviewer: Ok. Good

Student C: And I guess also the post-test shows how far you've come in terms of how much you've learned in a week.

Interviewer: It's like self-evaluation again for you to check where you are standing after doing the unit. Ok, thank you. Do you want to add something else or should we move on? (Pause).

Interviewer: Now, have you observed any good examples of using Moodle in your English language courses whether it's from the lecturer's perspective or from students' perspective? So, any good examples that you can think of, it could maybe be something you did with your lecturer that you think of or anything that you did as students that you found to be a very good example.

Student A: A good example I picked up was, when you use Moodle, in the English course there's usually videos that assist you when you don't understand something properly and the links are also stated within Moodle which is linked to another application such as YouTube or Wikipedia, so the moment you go within Moodle it will give you the information you need within, with respect to that specific chapter. So, I found that to be a good example of using Moodle as our lecturer would open videos to assist us in understanding a unit better.

Interviewer: Because you both see and listen, at the same time.

Student A: Yes ma'am.

Interviewer: Anything else? Any other good example you can think of?

Student C: I think with regards to when we had an essay due, we were supposed to submit online through Moodle and also there was the Turn-it-in forum or the interface that was implemented into Moodle where basically you check your work for any plagiarism and it refers back to you maybe have a percentage of plagiarism, how much it is, so I think, because everything is already integrated into Moodle, you literally only had to submit into...you only had to submit it into Moodle and then everything else would happen within Moodle, such as the Turn-it-in reflection and, and then also you receive your marks back on Moodle from that same examination, so you don't have... there's no form of paper trial that you have to follow through.

Interviewer: Ja; you are talking about... I guess you are talking about Turn-it-in, right?

Student C: Yes, you have to...follow through.

Interviewer: And after for example checking plagiarism, should you find out that there is a high percentage of plagiarism, do you re-do your work to improve or do you just submit it anyway?

Student C: Re-do.

Interviewer: Oh! You re-do your work; you'll get an opportunity to kind of correct whatever needs to be corrected. And resubmit again?

Student A: Ma'am, you're given certain attempts to re-submit. You can't just resubmit every two seconds.

Interviewer: Ok. And the maximum is how many times, for submission?

Student A: I wouldn't know ma'am, 'cause I submit it on my first attempt.

Interviewer: Oh, ok. Never mind. Good. Then, how do you feel about accessing Moodle, is it a bit difficult to access Moodle or is it easy?

Student A: I would say this one ma'am, it depends on... the device you are using.

Interviewer: Ooh.

Student A: If I would use a computer, it is easy to get your way around Moodle, but on smaller devices, like a cell-phone, it kind of becomes difficult going through the whole web browser and then accessing e-learning, it kind of... it becomes, I don't wanna say tricky, but if you if you don't know how to use the interface properly, you will get confused.

Interviewer: Ok, and this is why you are talking about difficulties regarding downloading the app or what?

Student A: Ja! If you use the Moodle app for students at the (Name of the institution) we don't have direct access through the Moodle app, we have to go through a web browser, but from my experiences with the UNAM's one, it's actually a friendly app.

Interviewer: Ooh. In other words, we should probably do what UNAM is doing?

Student A: And allow (Name of the institution).

Interviewer: Or even better than what UNAM is doing. And allowing what?

Student A: Allow (Name of the institution) to go through the Moodle app that you download, because we do download Moodle, but then (Name of the institution) is not available.

Interviewer: Ooh!

Student A: So, I think you just need to work on that.

Interviewer: Thank you. Now, we have a question somehow related to what you're saying, because if you check the last question here, it is for suggestions. You wanted to add something?

Student B: What I also think about the easy, how you can find it easy like accessing Moodle, if you go on like mostly, it depends on how often you access it. Like if you access it most times, then you get familiar with it.

Interviewer: Ooh. In other words, you need more experience. So, with more experience then everything becomes easy. Well, experience counts sometimes. Ok. Then, do you think Moodle has potential to improve your English language skills?

Student A: Yes, very much!

Interviewer: Ok, yes. How? Especially maybe if you think of some specific language skills.

Student A: Ma'am, it would be, in cases of the level of interaction you have with other students. That can also assist your English language skills; that you see how they write, and you see how they

speak. They can improve your grammar...for me that helps, because...in the modern-day students really neglect the ability of writing, they neglect it! So, when you see fellow students actually writing a word out, using proper grammar, for me I, I find that to be a very nice thing.

Interviewer: Ok. Anybody else to add to the potential for Moodle to improve your English language skills? Anything else to add?

Student C: I think it just generally, it being an online interface, with our generation moving mostly to being an online world, it helps in terms of how we interact with it, because we would be incentivized to interact with something that is online rather than something that's on paper.

Interviewer: So, in other words, you prefer to interact online rather than interacting as you said on paper.

Student C: With books.

Interviewer: Ooh! With books. Ok. Anything else or should we move on? (Pause). Nothing else. Ok, then we have nearly finished. What obstacles have you experienced in the process of using Moodle in your English language courses?

Student A: Like the main obstacle that I have encountered with Moodle is their consistency. There are days whereby ma'am...

Interviewer: Consistency or inconsistency?

Student A: Let me say their inconsistency, because there would be times where you are on Moodle, accessing your English documents for 20 minutes. You refresh a page and they are just down.

Interviewer: Do you mean you lose the information?

Student A: No ma'am! The server just...

Interviewer: Oh! The server goes down.

Student A: The server goes down, and now until they are back up again, you are just in an inconvenienced space for that hour.

Interviewer: Oh! This is what you mean.

Student A: Yes ma'am.

Interviewer: Ok.

Student A: That is the only obstacle I have encountered with Moodle that has really given me a problem.

Interviewer: Ok. Inconveniencing.

Student D: It's true.

Interviewer: Any other obstacle that you have faced?

Student B: No ma'am.

Student C: I don't think it is me myself, but I know in terms of people...for students that don't really understand or may not be English speaking, first language, it may be difficult to navigate through this interface.

Interviewer: Ooh!

Student C: I know for some students who take EAP, who are not really from Namibia they are, they're who speak a different language may not be able to access or be comfortable with going through the different communication tools through Moodle.

Student A: So, I think ma'am, this would be because of the limitation of the languages at the...

Interviewer: So, in other words, those who are doing lower English courses might struggle a bit due to language barriers.

Student C: Yes ma'am

Interviewer: Ok, thank you! Should we add, or should we move on? Don't worry we have finished, only one more question. What suggestions do you have to improve or enhance the use of Moodle in our English language courses? Any suggestions on what needs to be improved?

Student A: Ma'am, I'm gonna derive my suggestion from the previous answer about the language for kids who don't really use English or are not familiar with English. If they can have settings as to the guide or let me say the navigation through Moodle, it can be in multiple languages.

Interviewer: Ooh!

Student A: Like as in if you see "Home" or "English for academic purpose forums", not actually everybody understands that in English, but if they put it in Portuguese, the Angolan students could actually understand "Ok! This is where forums is", although the content they will learn will still remain English.

Interviewer: Ooh! I wanted to come in, to say, what about the language policy?

Student A: No ma'am, the language remains English. What they are gonna be taught is English, just the Moodle navigation! Just to make it friendlier for them, put it in a language they are more familiar or comfortable with.

Interviewer: To enhance understanding. It's a good suggestion. Any other suggestion?

Student A: Adding NUST to the actual Moodle app, but it will also...

Interviewer: Adding NUST (Taking notes).

Student A: Ja! To the actual Moodle app.

Interviewer: Ja! What you said earlier.

Student A: We'd appreciate it.

Interviewer: Moodle app. Any other suggestion? This is our last question...very last question. Anything that you think needs improvement?

Student C: I Think there's also an issue with Moodle generally where I think throughout the courses online on Moodle, but I think also in the EAP courses where you can go onto Moodle and be searching through or trying to find a document or a specific file, but then you'll find out that you are looking at something that's been previously there, so for example when I was looking for my...

Interviewer: Meaning the old content is still there?

Student C: Yes. Old content from something like Poly, when we were still Polytech, I see some... documents that relate to Polytechnic, especially some things that are dated 2013 , that may not be so relevant in our studies.

Interviewer: Ja! To remove irrelevant information. Ok. That's the key thing, removing irrelevant information or updating! Irrelevant information. Ok. Thanks a lot! I think this is it. Thanks a lot, and as I said, I'm going to put down, in writing, everything that we have said here, in other words transcribing of the audio and then I'm going to produce a document and what I'm going to do with this document, I'm going to choose probably some of you, not all of you, but maybe two or three and I have your cell phone numbers, so I'm going to send you the transcribed document for you to go through and just agree or disagree that this is what we discussed or make some corrections, if I have to. Thanks a lot!

APPENDIX K: SAMPLE ANALYSIS OF PLU, EPR AND EAP RESPONSES

Emergent themes & sub-themes	Broader categories	Meanings
Uses of Moodle		
<ul style="list-style-type: none"> • Reasons for using Moodle 	Student A PLU: "it's easily accessible because there are instructions that you've to (can) follow easily"	Accessing Moodle easily makes it a motivating factor for students to use it.
	Student A EAP: "you can get the materials faster"	
	Student A EAP: "you can access your grades easier"	
	Student B EPR: "ease of accessibility"	
	Student E EPR: "it is also easy access and easy practice for us"	
	Student A PLU: "to access my materials"	
	Student C EAP: "wherever you are you can access it if you have Internet"	Moodle accessible anywhere, anytime.
	Student E PLU: "it is self-paced, like you decide when to study, whatever time and at any place"	
	Student A PLU: "you can use it anywhere wherever you are"	
	Student B EPR: "notes and some advice on how to study the course is quite easy to find on Moodle"	Moodle interface is student-friendly.
	Student C EAP: "it motivates us to interact with the interface"	
	Student B PLU: "all the guidance is there"	
	Student C EAP: "we would be incentivized to interact with something that is online than something that is on paper"	
	Student D PLU: "it is giving more details than the lecturer"	Moodle provides more lesson content compared to face-to-face lessons in class as students can do more activities within a short period of time.
	Supporting quotes: "Moodle is providing more activities than the one(s) we are getting from class". Student D PLU "We tend to get access to more information on Moodle than in class". Student C PLU	
Student F EPR: "it gives us the class the chance to do so many activities whereas in class we do a few"		

	<p>Supporting quote: “Activities save a lot of time, and when they are shorter you get time to do more activities”. Student F EPR:</p>	
	<p>Student E EPR: “different activities allow us to practice more”</p>	
	<p>Student C EPR: “we get results after a few minutes or seconds”</p>	<p>Moodle provides instant feedback.</p>
	<p>Student A EAP: “you can access your grades easier”</p>	
	<p>Student D EAP: “you get your marks there right after you just submit your work”</p> <p>Supporting quote: “It’s usually multiple choice and then you receive your marks as soon as you finish with the post and pre-test”. Student C EAP</p>	
	<p>Student C EAP: “it improves our grammar”</p>	<p>Moodle activities enhance understanding of a variety of language skills: speaking, reading, writing, listening and grammar, and they improve vocabulary.</p>
	<p>Student B PLU: “when you keep on practising those exercises put on Moodle, it helps us to improve”.</p>	
	<p>Student A PLU: “the more you listen to the audios, so, you get to know different accents for English”</p>	
	<p>Student A EAP: “The level of interaction you have with other students can also assist your English language skills, that you see how they write, and you see how they speak. They can improve your grammar”</p>	
	<p>Student C PLU: “you get to know many vocabularies in (online) stories</p>	
	<p>Student C PLU: “the more you use it, the more you can express in terms of speaking and writing your English”.</p>	
	<p>Student D EPR: “you sometimes also learn new words and extend your vocabulary”</p>	
	<p>Student F EPR: “Moodle activities actually improve your English skills a lot, and one thing I like is that they are really short”. “When something is long, then it is never interesting, so the shorter the better”. Student F EPR Move to exemplary</p>	<p>Shorter activities in Moodle are more preferable to longer activities in face-to-face classes”.</p>
	<p>Student A EAP: “in a sense of the pre-test; it gives a little bit of self-evaluation of where you stand”</p>	<p>Some of the Moodle activities afford an opportunity for self-evaluation/self-reflection</p>

<ul style="list-style-type: none"> Tools in use to mediate learning 	<p>Student E EPR: "lecturers upload website links that you can follow"</p>	<p>Embedded website links are used to broaden understanding.</p>
	<p>Student A EAP: "the links are also stated within Moodle"</p> <p>Supporting quote: "the links are also stated within Moodle which is linked to another application such as YouTube or Wikipedia, so the moment you go within Moodle it will give you the information you need within, with respect to that specific chapter"</p> <p>Student A EAP</p>	
	<p>Student B EPR: "I would say links"</p>	
	<p>Student C EPR: "they are connected with the course"</p>	
	<p>Student F EPR: "the videos we watch"</p>	<p>Embedded video lessons enhance understanding of lesson content.</p>
	<p>Student E PLU: "in case you are lazy to read there are audios"</p>	
	<p>Student A EAP: "there's usually videos that assist you"</p>	
	<p>Student C EAP: "there is Turn-it-in interface that is implemented into Moodle where you basically check your work for any plagiarism"</p>	<p>Integrated Turn-it-in makes it easy to check plagiarism.</p>
	<p>Student A EAP: "you are given certain attempts to re-submit"</p>	
	<p>Student A PLU: "E-mail used by both the lecturer and students when you miss a test"</p>	<p>E-mail facilitates communication between the lecturer and students in low level English courses. However, students in higher level English courses prefer chatting over sending an e-mail that they find to be too formal, tedious and uncomfortable.</p>
	<p>Student E PLU: "maybe the lecturer is not around, you ask: do we have a class or not?"</p>	
	<p>Student A EPR: "we use the email to contact the lecturers"</p>	
	<p>Student B EPR: "they also use it to inform us and remind us sometimes on test dates and showing: "come for classes"</p>	
	<p>Student C EAP: "with the mail it's, it feels like it's a bit more formal and it takes a bit more, it takes out the accessibility and the efficiency of communicating with the lecturer"</p>	
<p>Student A EAP: "it's not that comfortable for a student to constantly type e-mails, but in a chat..."</p>		
<p>Student F EPR: "there is one available (discussion forum) but there is not much discussions displayed on it"</p>		
	<p>Even though discussion forum is available, it is not used in low level English</p>	

	Student C PLU: “we only use it (discussion forum) sometimes, but not for this course”	courses. Is it used in high level English courses, but still minimally used.
	Student C EAP: “discussion forum is used in discussing activities and also research” Supporting quote: “for research, like this other activity that we did of the B1 . Wasn’t that a discussion forum topic? The B1 road”	
	Student A EAP: “chat makes us feel more comfortable”	Chat rarely used in low level English courses, but is used and is more preferable in high level English courses, especially when compared to a discussion forum.
	Student A EPR: “for this course, not (used)”	
	Student E PLU: Chat used at times, depending on what you want to know or find out”	
	Student C EAP: “chat enhances how much the teacher can tell us through Moodle” Supporting quote: “if at any point in the day if he has to discuss something with us or say or send a form or tell us we have activities, he can send it through Moodle, or through chat forum, where then students across the class are able to access and see what he or she is telling us or ask us what to do, or providing us with” Student C EAP	
	Student E PLU: “we use the calendar the most”	The calendar is the tool that is mostly used by students in both low and high-level English courses and they find it very helpful as it keeps them updated on due dates of different activities.
	Student A EPR: “the calendar is the most (used) activity”	
	Student E EPR: “our test date , activity dates, due dates for certain assessments, all of it on the calendar, so it is very, useful”	
	Student D EAP: “we use it; that one we use. I like going there by the calendar and check” Supporting quote: “I like going there by the calendar and check and then you see when which activity is due, how many days do I have to complete an activity or post a test or when is the assignment due and stuff like that. It’s really useful for me” Student C EAP	

	<p>Student D PLU: "I'll talk about the announcement box"</p> <p>Supporting quote: You have no excuse to explain to a lecturer that you did not get to hear about the information, because all the announcements or whatever we need to know is there." Student D PLU</p>	<p>Lecturers make use of the announcement box to keep students informed.</p>
	<p>Student B EAP: "under announcements, that's where you get a lot of information"</p>	<p>In high level English courses (EPR &EAP) the grading tool makes it easy for students to get their grades, but it is rarely used in the low-level English course (PLU).</p>
	<p>Student A EAP: "under the Moodle you can access your grades easier"</p>	
	<p>Student A PLU: "the computer itself marks the activities once you're done"</p>	
	<p>Student C PLU: "we do quizzes but not always"</p>	
	<p>Student A EPR: "it is just the grading, quizzes for grading"</p> <p>Supporting quote: "when you do an assessment and this grading, then you can tell how good or where your weak points are because the notes indicate where you are wrong, where you're correct".</p> <p>Student A EPR</p>	
	<p>Student A EAP: "Unit lessons. This is where you obtain course documents or slides"</p> <p>Supporting quote: "If you missed a certain part or that day you could not attend you can simply go and access the course documents there and receive that specific unit you missed out". Student A EAP</p>	
<p>Successes</p> <ul style="list-style-type: none"> • Reflection through learning activities 	<p>Student A EAP: "the pre-test gives a little bit of self-evaluation of where you stand before you even start to learn, which I found to be very helpful because you can determine how much input you need"</p>	<p>Pre- and post-assessment activities found valuable as they facilitate self-reflection and reinforce understanding.</p>
	<p>Student C EAP: "post-assessment activities allow us to refresh what we've learned and regain and reinforce what you've learned.</p>	
	<p>Student C EAP: "also the post-test shows how far you've come in terms of how much you've learned in a week.</p>	

	<p>Student E EPR: “another thing that makes it efficient is the fact that we have pre-assessment activities and post assessment activities”</p> <p>Supporting quote: “We can evaluate like if you do the stuff before you write, before the lecturer teaches you, and then you can see like the difference between when you did it before you were taught and after you were taught and then you see what you learned in-between. So, you can also see like where else you are lacking in a certain topic”. Student E EPR</p>	
	<p>Student A EAP: “you just open up a discussion amongst the students on the high accident rates on the B1 road which was a positive as you could see each and everybody’s unique view on this whole accidents problem. So, in that sense it assists for us just to see or obtain different ideas from other students”</p>	<p>Even though the discussion forum is not effectively used in low level English courses, students in the higher English course found it beneficial as it facilitates generation of different ideas on real-life issues.</p>
	<p>Student A EAP: “there is usually videos that assist you when you don’t understand something properly” Supporting quote: “: A good example I picked up was, when you use Moodle in the English course there’s usually videos that assist you when you don’t understand something properly” Student A EAP</p>	<p>Videos enhance understanding when one needs extra guidance-part of scaffolding strategies. They also enhance speaking skills.</p>
	<p>Student F EPR: “the videos we watch” Supporting quote: “the videos we watch, so much better than in class, some of us we learn better by watching someone say”</p>	
	<p>Student D EPR: “regarding the videos, they really teach you how to... your pronunciation” Supporting quote: “And you also get some videos regarding essay writing, so they improve your writing and reading skills” Student D EPR</p>	
	<p>Student C EPR: “there is even Wi-Fi connection students can access when they are registered”</p>	<p>Access to free Wi-Fi on campus is a success story.</p>

Challenges		
<ul style="list-style-type: none"> • Technical challenges 	<p>Student E EPR: “when we receive notifications on the e-learning system, we are not aware of them. So, you are not aware of the fact that you have a message or an announcement from your lecturers”</p>	<p>Sometimes there are technical problems that hinder effective use of the system: inability to get notifications on mobile phones, slow Internet, the server goes down and weak Wi-Fi connection.</p>
	<p>Student B PLU: “The Internet itself. Sometimes it is very slow, sometimes it is not working at all.”</p>	
	<p>Student B EPR: “when the Wi-Fi connection is weak”</p>	
	<p>“Their inconsistency, because there would be times where you are on Moodle, accessing your English documents for 20 minutes. You refresh a page and they are just down”. Student A EAP</p>	
	<p>Student A EAP: “the server goes down” Supporting quote: “There was a time when the problem was with the e-learning system when it didn’t want to work, when you couldn’t go onto the e-learning platform. And we couldn’t do our activities, we couldn’t do our exercises and had to come back to our lecturers, like it was during the weekend and we had to come back to our lecturers on Monday and we had to inform them that the platform was down” Student E EPR</p>	
<ul style="list-style-type: none"> • Access to Moodle 	<p>Student A EAP: “we don’t have direct access through the Moodle app; we have to go through a web browser”</p>	<p>Accessing the Moodle application to access e-learning content directly without going through a web browser a major challenge.</p>
<p>Student B EPR: “we don’t have space on our phones” Supporting quote: “I have also seen that they have an app but most of us don’t download it because we don’t have space on our phones”. Student B EPR</p>		
<p>Student C EPR: “it (Moodle app) keeps asking for funny keys that you need to enter but you don’t have”</p>		

	<p>Student F EPR: “they ask for a key that you need to enter, but then we don’t know where to get that key”</p> <p>Student A EAP: “on smaller devices, like a cell phone, it kind of becomes difficult going through the whole web browser and then accessing e-learning”</p>	
	<p>Student C EAP: “difficult to navigate through this interface for students that don’t really understand or may not be English speaking”</p>	<p>Navigation through Moodle could be a challenge to students with poor language skills</p>
	<p>Student A: Like as in if you see “Home” or “English for academic purpose forums”, not actually everybody understands that in English, but if they put it in Portuguese, the Angolan students could actually understand “Ok! This is where forums is”, although the content they will learn will still remain English.</p>	
<ul style="list-style-type: none"> • Online feedback 	<p>Student C EPR: “the activities usually don’t give feedback to where you went wrong”</p> <p>Supporting quotes: “sometimes you get zero out of five and then you don’t understand why you got zero out of five” Student C EPR</p> <p>Supporting quote: “Sometimes you feel, now what have I done wrong in this quiz that I don’t see where I have gone wrong?” Student D EPR</p>	<p>Inability of the Moodle system to provide proper online feedback on activities is a challenge.</p>
	<p>“So, when you’re wrong you go for extra miles to find out, “What was my wrong? What did I do?” Student A PLU</p>	
<ul style="list-style-type: none"> • Organisation of online course content 	<p>Student C EAP: “old content that may not be relevant in our studies”</p> <p>Supporting quote: “You can go onto Moodle and be searching through or trying to find a document or a specific file, but then you’ll find out that you are looking at something that has been previously there”. Student C EAP</p>	<p>There is a need to keep the online course content updated.</p>
<ul style="list-style-type: none"> • 	<p>“Old content from something like Poly, when we were still Polytech, I see some... documents that relate to Polytechnic, especially some things that are dated 2013 , that may not be</p>	

	so relevant in our studies". Student C EAP	
Limited use of the tools	Student D EPR: "the fact that some of these tools are not really that active"	Some of the Moodle communication tools are not used effectively/are rarely used.
Suggestions for improvements		
<ul style="list-style-type: none"> Institutional level 	Student A EAP: "adding NUST to the actual Moodle app"	Making the Moodle app available to NUST students for easy navigation.
	Student A EAP: "if they can have settings as to the guide or let me say the navigation through Moodle, it can be in multiple languages"	Improved navigation that caters for students with low level English language skills/language barriers.
	Student D PLU: "give more lessons to attend in the lab" Supporting quote: I think one thing they should do, they should give more lessons to attend in the lab than in class"	There is a need to increase lab hours (One student participant only).
	Student E EPR: "if they could link notifications to our e-mail or something, and then every time there is a notification it could just pop up on our phone, because we have our phones everywhere we go"	Explore the possibility of linking students' mobile phones to their e-mails to receive notifications timely.
	Student C EPR: "just a text that pops up that there is an announcement"	
<ul style="list-style-type: none"> Departmental level 	Student A PLU: "provide us with (more) videos"	Lecturers are requested to use more video lessons to enhance understanding
	Student D EPR: "some of these tools are not really that active, if they were more active, they'll improve many people's skills, especially the forums and blogs and the chats, if many people were more using these tools"	Request for lecturers to make use of some communication tools that are hardly used, such as the discussion and chat forums and the blogs.
	Student A PLU: "they should put even UK or British English"	Audio materials too American, change to British English.